

**ABSTRACT BOOKS**

- Abstracts of the 8th International Academic Medical Congress of Maranhão (VIII COIMAMA) 2023
- Abstracts of the 9th International Academic Medical Congress of Maranhão (IX COIMAMA) 2024

**EDITORIAL**

- Empowering the Research Future of Medical Students: Reflections on the Third Edition of the IJMS World Conference of Medical Student Research (WCMSR), 2024

**WCMSR ABSTRACTS**

- Abstracts of the IJMS World Conference of Medical Student Research (WCMSR) 2024



IJMS

INTERNATIONAL JOURNAL *of*  
MEDICAL STUDENTS

***International Journal of Medical Students***

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Evaluating the Effectiveness and Complications of Robotic vs Other Surgery Techniques for Mitral Valve Repair or Replacement: A Comprehensive Systematic Review and Meta-Analysis

Primary Headache in Medical Residents: A Web-Based Survey

# Abstracts of the 8th International Academic Medical Congress of Maranhão (VIII COIMAMA) 2023

## 01. THE ADMINISTRATION OF MONOCLONAL ANTIBODIES IN THE TREATMENT OF VITREORETINAL DISEASES

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**INTRODUCTION:** Diseases that affect the vitreous, retina and choroid are common causes for the development of irreversible blindness throughout the world. Currently, the administration of vascular endothelial growth factor (VEGF) inhibitors, called monoclonal antibodies, directly into the vitreous cavity, has emerged as an important therapeutic modality in ophthalmology, especially in the treatment of retinal diseases, such as age-related macular degeneration. (AMD). In this context, it is observed that such pharmacotherapy has revolutionized the treatment of vitreoretinal diseases, as it is easily surgically accessible and has low systemic absorption, however, there are still serious risks inherent to the procedure and its toxicity. **METHODS:** Systematic review, based on the use of scientific articles on ocular pharmacology, especially the intravitreal application of monoclonal antibodies for the treatment of vitreoretinal diseases. The chosen articles were published in Portuguese and English between 2010 and 2023. **RESULTS:** Studies on the pharmacokinetics of the monoclonal antibody bevacizumab, an inhibitor of VEGF subtype A receptors, showed that this drug is capable of reducing neovascularization and decreasing vascular permeability in patients with AMD and diabetic retinopathy, and can also be applied in cases of occlusions retinal vascular disease, corneal neovascularization, neovascular glaucoma and retinopathy of prematurity. Recently, prospective clinical trials of the monoclonal antibody ranibizumab, a recombinant human antibody fragment capable of inhibiting VEGF, also proved effective in stabilizing vision in approximately 95% of patients with subretinal neovascular membrane secondary to AMD during the first year of treatment. **CONCLUSION:** The use of monoclonal antibodies in ocular pharmacology for the treatment of diseases that affect the vitreous, retina and choroid shows excellent results and prognosis. However, during this type of treatment, multiple applications are necessary, with a consequent increase in the risk of serious complications, such as retinal detachment, vitreous hemorrhage or endophthalmitis. Furthermore, the short half-life of medications and patient discomfort during intravitreal injection are the main factors that favor low treatment adherence rates. Therefore, new studies are necessary to optimize the use of these drugs in the posterior segment of the eye.

## 02. ATHEROSCLEROSIS AS A RISK FACTOR IN ABDOMINAL AORTIC ANEURYSM SCREENING

Gabrielle Ribeiro Ferreira Dias<sup>1</sup>, Thainne Gabrielle Santos Silva<sup>1</sup>, Vinícius Longo Souza Lima<sup>1</sup>, Murilo Freitas e Silva Filho<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, Daniela Almeida da Hora<sup>1</sup>, Gabriel Sandrin de Oliveira Melo<sup>2</sup>.

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**INTRODUCTION:** When analyzing the most recent studies on Abdominal Aortic Aneurysm (AAA), it is possible to consider that this condition has a multifactorial characteristic, involving several epidemiological and pathophysiological aspects in its pathogenesis, with atherosclerosis being an important predisposing factor. This is because the atherosclerotic process has inflammatory responses at a cellular and molecular level, which are caused by alterations in the vascular endothelium and, consequently, can cause an abnormal expansion of the aorta - definition of aneurysm. The complications of AAA are related to the rupture of vessels and bleeding from the vascular wall, factors that have a very high mortality rate, despite advances in endovascular procedures, which combined with the fact that the majority of patients with AAA are asymptomatic makes the importance of controlling the etiological mechanisms of atherosclerosis to prevent cases of AAA even more evident. **METHODS:** A bibliographic survey was carried out in September 2023 in the SciELO and PubMed databases, using the following descriptors: "Abdominal Aortic Aneurysm", "Atherosclerosis", "Risk Factors". **RESULTS:** In Brazil, the incidence of AAA is 25 patients per 100,000 inhabitants per year. A study carried out with 102 patients with AAA showed that around 30.4% were asymptomatic, with the diagnosis being made through physical examination, which reveals the importance of a good history in screening for this disease. It is also believed that the majority of aortic aneurysms caused by atherosclerosis are in the abdominal aorta. Furthermore, some studies point to atherosclerosis as a common finding in aneurysmal tissue, however there are still disagreements and few studies that confirm the relationship. **CONCLUSION:** Therefore, there is a clear need for further studies on AAA, encouraging screening for this condition, its early diagnosis, as well as monitoring patients with atherosclerosis and other risk factors, taking into account the high number of asymptomatic cases and the high risk of infection and death associated with this clinical condition.

**03. THE DISCLOSURE OF ERRORS IN SURGICAL PROCEDURES FROM A BIOETHICAL PERSPECTIVE**

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**INTRODUCTION:** Surgery is constantly evolving, but errors can occur. Surgeons have an ethical responsibility to inform patients about possible complications and to be transparent in the event of errors, while maintaining empathy and considering the legal risks. With this in mind, the aim was to analyze and discuss the disclosure of errors in surgical procedures from a bioethical perspective.

**METHODS:** A narrative literature review was carried out using the LILACS, SciELO, BVS and MEDLINE databases, searching for articles with the health sciences descriptors "medical bioethics", "surgical errors", "health communication" and "health legislation". Selection criteria were established, resulting in 58 articles. After analyzing the abstracts, 12 articles were chosen for full analysis. **RESULTS:** From a bioethical perspective, the disclosure of medical errors is essential, based on the principles of beneficence, non-maleficence, autonomy and justice. The 1988 Federal Constitution reinforces patients' right to full information and CFM Resolution No. 2,217/2019 establishes guidelines for the disclosure of medical errors. It is crucial to maintain open and honest communication with patients, although an apology should be careful. The recommended process involves prior clarification, explanation after an error and correcting it when possible, involving risk management and meetings with relatives and patients, recording everything in the medical records. **CONCLUSION:** In an ethical approach, doctors should recognize and report surgical errors, considering their impact on the patient's health and respecting their autonomy. Disclosure of errors is vital to maintaining patient trust and is an ethical responsibility. In addition, it should be seen as part of a process of continuous improvement in surgery, aimed at patient safety. Medical ethics, the Code of Medical Ethics and bioethical principles should guide the disclosure of surgical errors, promoting ethical and safe medical care.

**04. THE EFFECTIVENESS OF PELVIC PHYSIOTHERAPY IN ADDRESSING CHRONIC PELVIC PAIN IN ENDOMETRIOSIS**

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**INTRODUCTION:** Endometriosis is a chronic, estrogen-dependent inflammation that causes pelvic pain and is characterized by the presence of ectopic tissue similar to the endometrium in locations such as the intestines and pelvic area. Symptoms include pain before and during menstruation and urinary dysfunctions. Treatment involves hormonal contraceptives but may lead to side effects. The multidisciplinary treatment of pelvic floor hypertonia includes pelvic floor physiotherapy, aiming to improve muscle relaxation, vaginal elasticity, address trigger points, and alleviate pain. **METHODS:** A systematic review was conducted using various databases. The search employed the phrases "endometriosis AND pelvic floor" and "endometriosis AND chronic pelvic pain". **RESULTS:** A pain-centered approach may be more advantageous than the detection of endometriosis lesions. Studies indicate that chronic pelvic pain leads to remodeling of the central nervous system over time, resulting in central sensitization and increased sensitivity to harmful stimuli. Endometriosis, with no known cure, requires a multiprofessional approach involving clinical, surgical, and complementary therapies to suppress disease foci and control pain. Pelvic physiotherapy can promote muscle relaxation in the pelvic floor. Optimizing pelvic floor muscle function can alleviate pain. Transcutaneous electrical nerve stimulation (TENS) is a non-invasive technique that has shown a significant reduction in pain in conditions of chronic pelvic pain. Sacral nerve stimulation (SNS) is a promising treatment option for refractory chronic pelvic pain. The combination of neuromodulation with hormonal treatment may be beneficial in managing deep endometriosis. The literature suggests that interdisciplinary approaches are successful in reducing pain, doctor visits, and emergency room visits. **CONCLUSION:** Pelvic floor physiotherapy can help improve pelvic pain, urinary function, muscle function, and overall sexual and general quality of life in patients with endometriosis and chronic pelvic pain. The combination of non-invasive techniques such as biofeedback and neuromodulation support a comprehensive approach that can promote awareness, control, and muscular strengthening of the pelvic floor while modulating nerve activity.

05. **THE EXPANSION OF ZONOTIC SPOROTRICHOSIS IN BRAZIL: A LITERATURE REVIEW**

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**INTRODUCTION:** Zoonotic sporotrichosis is a mycosis that affects the cutaneous and subcutaneous tissue, causing ulcerative lesions on the skin of the infected person. This pathology is caused by fungi of the genus *Sporothrix*, with felines being the main vectors. The scientific relevance of this publication lies in the expansion of the incidence of zoonotic sporotrichosis in Brazil and in the need to increase the number of reliable bibliographies on this fungus. The aim of this study is to analyze the increase in the incidence of animal sporotrichosis in Brazil. **METHODS:** This is a literary review based on pre-existing epidemiological analyses, of a descriptive quantitative nature. The databases used were Scielo, PubMed, and Scopus, and the following descriptors were chosen: "Animal Sporotrichosis," "Brazil," and "Zoonoses." The inclusion criteria for the selection of articles include: articles published in Portuguese and English, available in full, and published and indexed in the mentioned databases between 2019 and 2023. **RESULTS:** During 1998–2017, Brazil experienced a geographical expansion of sporotrichosis. The Southeast region had the highest occurrence of human and animal cases, but in recent years, states in Northeast Brazil, especially Pernambuco, Alagoas, and Rio Grande do Norte, detected epizootic events in the feline population, with the consequent zoonotic transmission. By 2020, all Brazilian states, except Roraima, had reported cases of human sporotrichosis. The main reference center for the treatment of this mycotic disease, the Oswaldo Cruz Foundation (Fiocruz) in Rio de Janeiro, registered ~5,000 human cases during 1998–2015. However, these numbers represent only cases diagnosed at one institution, and the actual incidence rates are likely higher. Between 1992 and 2015, in Brazil, sporotrichosis was registered in 782 hospitalizations, in all states (except Roraima), with a median duration of 8 days, median age of 43 years, and longer hospitalization among men, in addition to being reported in 65 deaths. **CONCLUSION:** Zoonotic sporotrichosis is a public health concern, and its incidence has been increasing over time in Brazil; however, this pathology does not receive the necessary importance. Therefore, it is of utmost importance to include it in the list of nationally compulsory notification diseases, as well as to expand surveillance and control measures throughout the country.

06. **THE IMPORTANCE OF AAST CLASSIFICATION IN THE MANAGEMENT OF HEPATIC TRAUMA: A REVIEW ARTICLE**

João Eduardo Gomes Barros<sup>1</sup>, Inggryd Eduarda Possidônio De Souza Santos<sup>1</sup>, Rodrigo Almeida Da Paz<sup>1</sup>, Alyson Mikael De Oliveira Sá<sup>1</sup>, Wesley Do Nascimento Silva<sup>1</sup>, Diogo Silva de Moraes<sup>2</sup>.

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**INTRODUCTION:** The liver, due to its robust anatomy, is the abdominal organ most commonly affected in traumas. Injuries are classified by imaging criteria, with findings from computed tomography (CT), surgical criteria such as capsular hematoma area and hepatic laceration, and by criteria from anatomopathological analysis. Such data allows for the classification of the injury according to the American Association for the Surgery of Trauma (AAST) method, a standardization tool in trauma care. The aim of this study is to discuss the importance of AAST classification in the management of hepatic trauma. **METHODS:** This is a narrative review regarding the use of AAST classification in the management of hepatic trauma. Google Scholar and PubMed/Medline databases were used to search for articles, selecting national and international studies published between 2017 and 2023. **RESULTS:** A total of 5477 articles were identified, of which 9 were selected for the study. According to the literature, AAST classification is an effective method due to its ease of use and standardization. Its association with other techniques, such as angiography and systematic computed tomography, allows for more precise management of the traumatized patient, with a multifactorial approach being essential. **CONCLUSION:** A correlation was shown between the AAST scale and the efficacy of treatment choice for hepatic trauma, demonstrating its importance in the treatment of traumatized patients. Therefore, the importance of conducting studies like this to ratify and determine how hepatic trauma management by AAST classification should be conducted and treated is highlighted.

**07. THE IMPORTANCE OF THE CHA HOME VISIT TO POSTPARTUM WOMEN**

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**INTRODUCTION:** The home visit (HV) is a way of establishing a good bond with the patient, understanding their needs and peculiarities. Thus, the puerperium, the period of 40 days after childbirth, is a time when the HV has the function of guaranteeing individualized access to both the mother and the newborn, and instructing the puerperal woman on breastfeeding, detecting and monitoring postpartum depression, as well as reducing maternal and neonatal mortality. In this context, the community health agent (CHA), a community health professional who acts as a liaison with the Basic Health Unit, is one of the professionals responsible for HV, safeguarding access to health for mothers and newborns. **METHODS:** This is a literature review, in which we searched the Google Scholar and PubMed portals, using as eligibility criteria original articles published from 2019 onwards, without language restriction, and which specifically presented the topic. The descriptors used were: "CHA"; "women's health"; "home visit". **RESULTS:** HV by CHAs to postpartum women has proven to be an effective strategy for promoting women's health and allows them to assess their physical and emotional health, promote breastfeeding by helping them to start and maintain breastfeeding, provide guidance on caring for the baby, detect and refer possible cases of domestic violence and promote the bond between mother and baby. Some studies have shown that HV by CHAs can contribute to reducing maternal and infant mortality, improving the mental health of postpartum women, increasing adherence to breastfeeding and reducing domestic violence. Therefore, HV contributes to the identification and prevention of domestic violence. **CONCLUSION:** Thus, HV by CHAs is an effective strategy for promoting women's health in the puerperium, as it is carried out by a professional trained to provide guidance and support, contributing to the physical and emotional recovery of puerperal women.

**08. THE IMPORTANCE OF REGULAR PHYSICAL EXERCISE AND SUPPLEMENTS IN PATIENTS WITH AUTISTIC SPECTRUM DISORDER**

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**INTRODUCTION:** Autism Spectrum Disorder (ASD) presents several phenotypes, in which there is a heterogeneity of presentations, intensities and combinations of symptoms. The pillars of the diagnosis of ASD are the presence of early and persistent impairments in communication and social interaction, in addition to restrictive and repetitive patterns of behaviors, interests and activities. At the same time, 70% of diagnosed patients have associated comorbidities, the most common of which are anxiety, depression, ADHD, epilepsy, sleep disorders, and eating disorders. However, in an attempt to alleviate the symptoms related to ASD and possible comorbidities, several drugs are often not prescribed to patients, generating a polypharmacy that can bring numerous adverse effects and drug interactions. **METHODS:** Bibliographic survey carried out on the SciELO, PUBMed and Google Scholar platforms, selecting published scientific articles using the following descriptors "Autism", "Autism Spectrum Disorder", "Comorbidities". **RESULTS:** Despite the range of medications used to minimize complaints related to ASD and its associated comorbidities, it was observed that physical activities in general are highly beneficial for patients. Such activities, especially when carried out in groups, can reduce stereotypical behaviors, increase levels of attention and social interaction, in addition to the important concept of belonging. Which can bring improvements to both the cognitive and social aspects of patients. At the same time, substances such as folic acid, melatonin, and methylcobalamin, to some extent, can reduce symptoms related to ASD and its comorbidities. In addition to working in a short period of time, such substances have mild or no adverse effects, while improving socialization, language, sleep disturbance and cognition. **CONCLUSION:** Although pharmacological interventions in patients with ASD provide symptom relief, they are also related with significant adverse effects and drug interactions. Therefore, physical activity and dietary supplements can be included more substantially in the therapeutic plans of patients with ASD in order to reduce symptoms and improve the quality of life of this population.



09. **THE IMPORTANCE OF BREASTFEEDING IN PREVENTING CHRONIC NON-COMMUNICABLE DISEASES**

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**INTRODUCTION:** Breastfeeding is the most important means of nutrition for child development and is able to exclusively meet all the needs of newborns and infants up to 6 months of age. Breast milk contains components such as Immunoglobulin A (IgA), B and T lymphocytes and essential fatty acids, which contribute to strengthening the infant's immune system, thus reducing the occurrence of various diseases, including chronic non-communicable diseases (CNCDS) such as hypertension, obesity and diabetes. **METHODS:** This summary is a systematic literature review. Searches were carried out in the BVMS, SciELO and BVS databases, as well as virtual repositories of higher education institutions in Brazil. The inclusion criteria were works published in Portuguese in the last 20 years. The following descriptors were also used for selection: "breastfeeding", "chronic diseases", "partial breastfeeding" and "early weaning" **RESULTS:** It was possible to observe the impact of breastfeeding on the prevention of chronic diseases in the long term. Individuals who were adequately breastfed had 1.2 mmHg lower systolic blood pressure and 0.5 mmHg lower diastolic blood pressure, as well as 0.18 mmol/L lower total cholesterol and a 37% lower risk of type 2 diabetes mellitus. In addition, a cross-sectional study of 29 individuals showed that 86% had no diagnosis of chronic diseases, of which 41.4% were breastfed for up to one year and 24% for more than one year. **CONCLUSION:** Breastfeeding incorporates factors that contribute to the infant's homeostasis. Breast milk influences metabolic regulation through anti-inflammatory components, immunological agents and growth factors, for example, which together increase resistance to infections and prevent the imbalance that leads to acute and chronic non-communicable diseases. It is therefore of the utmost importance to encourage the practice of full breastfeeding up to the age of 6 months and, subsequently, associated with healthy complementary feeding, in order to contribute to full development during childhood and, consequently, a reduction in the Brazilian morbidity rate.

10. **THE IMPORTANCE OF PRENATAL CARE IN THE DIAGNOSIS AND TREATMENT OF CONGENITAL SYPHILIS**

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**INTRODUCTION:** Congenital syphilis is characterized by an infection caused by the bacterium *T. pallidum*, which reaches the fetus through the placenta or during childbirth. This disease has a high seroprevalence in underdeveloped countries, which have greater failures in prenatal care programs. **METHOD:** This is a retrospective, descriptive, quantitative study, which was carried out by analyzing data related to the quality of prenatal care in neonates with congenital syphilis in Maranhão, through the collection of data from the Notifiable Diseases Information System - SINAN. The aim of the study was to describe the forms of vertical transmission of syphilis in order to adopt preventive, diagnostic and therapeutic measures in pregnant patients. **RESULTS:** In the period from 2010 to 2021, there was a higher notification of congenital syphilis in Maranhão during prenatal care in 2018 and 2019. The performance and result of the non-treponemal test totaled 86.9% of pregnant women. The majority of congenital syphilis diagnoses occurred during prenatal care and at the time of delivery. The municipality of São Luís, followed by Imperatriz and Timon, had the highest number of cases. **CONCLUSION:** This disease is associated with problems involving prenatal care, poor socioeconomic conditions and low schooling. When the non-treponemal test was carried out, a high level of diagnosis was found during prenatal care, but there was an increase at the time of delivery, which is not the best time, since for better prevention of vertical transmission it should be diagnosed early. There was a higher occurrence of congenital syphilis in populous cities such as São Luís and Imperatriz.

11. **THE INTRINSIC RELATIONSHIP BETWEEN PRIMARY OPEN-ANGLE GLAUCOMA AND PEOPLE OF AFRICAN DESCENT**

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**INTRODUCTION:** Glaucoma is an acquired neurodegenerative optic neuropathy, characterized by irreversible changes in the optic nerve, progressively leading to loss of the visual field, being the main cause of irreversible blindness in the world. The most common classification of this disease is primary open-angle glaucoma (POAG), responsible for approximately 80% of cases. Epidemiological studies and clinical research have highlighted a close relationship between African ancestry and the increased risk of developing POAG. This finding is not limited only to incidence, but also to the age at onset of the disease, clinical progression, genetic factors, and anatomical changes. Therefore, given the clinical relevance of this pathology, the study aims to evaluate how POAG is distributed in the population, emphasizing the importance of knowing the groups most affected – in order to prevent irreversible ophthalmological complications.

**METHODS:** This is a descriptive study, of the integrative literature review type, with analysis of data obtained from articles available on the Scielo and PubMed websites between the years 2017 and 2022. As a basis for the study, the descriptors used were: glaucoma, prevalence, and afro-descendants, 11 articles were found and, of these, 4 were selected to prepare this written assignment. **RESULTS:** From the analysis, a considerable variation in the prevalence and type of glaucoma was observed according to the population analyzed. POAG appeared, in general, with greater frequency and severity in individuals over 40 years of age and of black race, although care for this population has not followed such prevalence. Some studies, although not conclusive, point to a statistical difference in the thickness of the cornea in people of African descent, something that may be related to the greater incidence of this population. The diagnosis is often made late, contributing to the worsening of cases.

**CONCLUSION:** It appears that ethnicity and age are among the main factors related to the development of this visual problem. Therefore, knowing the most affected groups, it is essential to intensify early diagnosis practices aimed, above all, at black and older individuals. Furthermore, the importance of expanding appropriate therapeutic interventions is highlighted, aiming to preserve eye health and prevent ophthalmological complications that can lead to blindness.

12. **LIPOFILLING IN POST-MASTECTOMY BREAST RECONSTRUCTION: EFFICACY, SAFETY, AND PERSPECTIVES**

Maria Eduarda Couto de Melo dos Santos<sup>1</sup>, Maria Eduarda Mendes Gomes<sup>1</sup>, Bruna Larissa Nolêto Sousa<sup>1</sup>, Ana Clara Silva de Alencar<sup>1</sup>, Guilherme Cruz Mendes Silva<sup>1</sup>, Juliana Lobato Miranda Pereira<sup>1</sup>, Maria Fernanda Sales Campos<sup>1</sup>

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**INTRODUCTION:** Mastectomy in breast cancer patients significantly impacts the quality of life, driving the pursuit of reconstructive procedures. Autologous fat grafting stands out for aesthetic correction and risk reduction, but concerns arise regarding potential associations with tumor recurrence, necessitating further research. This literature review aims to analyze existing studies on the issues related to lipofilling recurrence in post-mastectomy breast reconstruction, considering the debated tumor relapse questions that lack solid evidence. **METHODS:** A qualitative, retrospective research involved reviewing 10 scientific papers published from 2012 to 2021. Databases like PubMed, PeBMed, Google Scholar, and SciELO were consulted using DeCS terms: 'mammoplasty,' 'autologous transplantation,' 'mastectomy,' and 'breast neoplasms.' **RESULTS:** Throughout the bibliographic analysis, it became evident that lipofilling yields more favorable results in male patients compared to females, emphasizing its safety. It's crucial to note that this procedure requires a specialized team, including surgeons and radiologists. However, substantial evidence linking lipofilling to tumor recurrence or breast changes has not been identified so far. **CONCLUSION:** The scope review indicates that lipofilling is a safe and effective alternative for improving self-esteem without the need for silicone prostheses, avoiding associated complications. Scientific studies highlight its appropriateness, gaining acceptance for its intrinsic aesthetic benefits and risk reduction. Concerns about breast cancer or recurrence after fat grafting in breast reconstruction lack scientific support, with no significant complications found to impede breast cancer screening. The review underscores the importance of rigorous oncological follow-up while emphasizing the need for more research to optimize technique application and ensure patient safety.

13. **THE RELATIONSHIP OF THE DEGREE OF DISABILITY AND THE TREATMENT OF PATIENTS WITH HANSEN'S DISEASE IN MARANHÃO**

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**INTRODUCTION:** According to the World Health Organization (WHO, 2023), Hansen's disease is a chronic infectious disease caused by the bacterium *Mycobacterium leprae*, which affects the skin, peripheral nerves, the surface of the mucous membranes of the upper airway and the eyes. Furthermore, it is a disease that affects any age group, but it is curable, and, if treated early and appropriately, it can prevent disability. Despite this fact, the state of Maranhão has the highest prevalence of cases in Brazil, and, in the period from 2010 to 2019, 30% developed loss of function or deformity according to the Brazilian Society of Dermatology (SBD, 2021). In this sense, this work aims to analyze the relationship between the degree of disability of Maranhão patients with Hansen's Disease and the recommended therapeutic regimen. **METHODS:** Descriptive study on the association between the degree of disability caused by Hansen's disease and the therapeutic regimen adopted, analyzing the period between 2017 and 2022. Data was collected in DATASUS, in the Notifiable Diseases Information System (SINAN). The following variables were chosen: frequency of notified disability assessment; frequency of the reported therapeutic regimen; number of doses of the therapeutic regimen. **RESULTS:** Maranhão presented a total frequency of 21.326 cases, 12.883 in the period from 2017 to 2019 and 8.443 during the pandemic years. Among these, only 18.995 were assessed for their degree of physical disability. Of this total, 42% of patients presented changes in the evaluation, 76.5% grade 1 and 23.4% grade 2. In addition, 21.105 were categorized according to the therapeutic regimen, 3,565 received paucibacillary polychemotherapy (MDT) and 17.540 multibacillary MDT. In this context, 195.409 doses were administered in the period, which corresponds to approximately 84.3% of the total required, culminating in the non-administration of 36.461 doses, 56% of which correspond to the period from 2020 to 2022. **CONCLUSION:** Therefore, it was observed that, in addition to insufficient physical assessment in individuals diagnosed with Hansen's disease, a severe rate of physical disability was found that may be related to inadequate treatment, given that many did not complete them. Therefore, there is an urgent need for more efforts to be made in diagnosis, early treatment and appropriate monitoring in the context of Maranhão.

14. **THE RELATIONSHIP OF LIFESTYLE HABITS WITH THE EMERGENCE OF GASTRITIS: A LITERATURE REVIEW**

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**INTRODUCTION:** Gastritis is an inflammation of the stomach mucosa, whose main etiological factor is *Helicobacter Pylori* (HP), which is a bacterium with the ability to adapt to gastric acidity. In addition to this relationship, some exogenous factors seem to influence the manifestation of this pathology, making treatment difficult and allowing relapses. **METHODS:** This is an integrative literature review, using the databases: Scientific Electronic Library Online (SciELO) and Latin American Literature in Health Sciences (LILASC). Considering the years 2013 to 2023, 148 articles were initially found, but only 7 articles were chosen because they covered the topic. **RESULTS:** During the course of the topic, it was evident that most authors express the association between lifestyle and the clinical occurrence of gastritis. It was found that bad lifestyle practices have been related to the occurrence of the pathology. Even though HP infection is the main cause of gastritis, other factors also play a major role due to the production of substances and changes in gastric motility that increase acid secretion and result in inflammation in the stomach cavity, such as a diet rich in nitrites, sodium and chemical additives, as well as smoking, alcoholic beverages and non-steroidal anti-inflammatories. Its manifestations are most often characterized by the presence of symptoms such as: nausea, vomiting, pain, discomfort in the upper abdomen, burning, sensation of fullness and loss of appetite. On the other hand, it has been proven that a diet rich in vegetables and fruits, abundant in antioxidants, such as vitamins E, C and carotenoids, is associated with the attenuation of gastric damage. **CONCLUSION:** It is necessary to know the causal aspects that lead to gastritis so that adequate treatment can be carried out with less chance of therapeutic failure and recurrence. **Keywords:** ipsa, consequatur, galisum.

**15. THE RELATIONSHIP BETWEEN MEDICAL BIOETHICS AND PANDEMICS: A SYSTEMATIC REVIEW**

Isadora Macatrão Costa<sup>1</sup>, Lia Teixeira Cândia<sup>1</sup>, Gamaliel Gama Sanches Silva Júnior<sup>1</sup>, Flávio Augusto de Alencar Oliveira<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>

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**INTRODUCTION:** In a world whose history has been marked by pandemics that challenge the limits of medical practice, ethics and bioethics are essential as moral compasses for clinical and political decision-making. In this sense, the aim was to explore ethical principles in medical practice during pandemics, comparing bioethical issues in different health emergency scenarios. **METHODS:** This is a systematic review of the literature, using the electronic databases of indexed journals, MEDLINE, LILACS and SciELO. The following descriptors were used: "medical bioethics", "pandemics" and "public health". Articles were selected in full, published in the last 10 years, written in English or Portuguese and relevant to the topic, and ten articles that met all the criteria were eligible. **RESULTS:** Five articles addressed the fact that measures restricting freedom, rationing/rationalizing the use of medicines and offering adequate treatment to patients are factors that influence professional ethics in a health emergency scenario. The dilemmas are further reinforced, according to three articles, by the limited access to the health system and physical resources, the risk and strain imposed on health professionals and their responsibilities towards human life. In addition, two articles emphasized the importance of equity, transparency and the power of choice in clinical research and the development of vaccines and medicines. **CONCLUSION:** The fundamental principles of bioethics face complex challenges in emergency situations such as pandemics. The allocation of limited resources creates a dilemma between justice and beneficence, restrictive measures to protect public health raise questions about individual autonomy and collective well-being, and health professionals face dilemmas in balancing saving lives, patient dignity and conducting clinical trials, with a focus on equity and research ethics. Amplified inequalities make ensuring these principles a constant challenge. The existing literature presents limitations in comparing and deepening bioethics in different pandemic scenarios. Therefore, prospective studies are needed to guide policies and practices in future global health crises, seeking to balance effectiveness and ethics in complex and dynamic situations.

**16. THE RELATION BETWEEN SLEEP DEPRIVATION AND OBESITY OCCURRENCE IN CHILDREN: A REVIEW**

Saleth Victoria Pinheiro Maciel<sup>1</sup>; Gustavo Bender Hendges<sup>1</sup>; Deborah Bouéres Laender Moraes<sup>1</sup>; Maria Clara Gadelha Lopes da Silva<sup>1</sup>; Giovanna Santana Mendonça<sup>1</sup>; Wellyson da Cunha Araújo Firmo<sup>2</sup>

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**INTRODUCTION:** Inadequate sleep is strongly associated with deficits in well-being and health, such as obesity, in children. The rise in obesity parallels sleep deprivation and poses numerous problems for childhood, including diminished physical and mental health, often persisting into adulthood, and cardiovascular diseases. Hence, the current study aimed to investigate the relation between sleep deprivation and the occurrence of obesity in children. **METHODS:** This is a literature review based on the search of the keywords "sleep deprivation," "obesity," and "children," as well as their equivalents in Portuguese, in the PubMed database using the operator AND. Inclusion criteria were: papers published in the last 5 years; in indexed journals; in English or Portuguese. Exclusion criteria were: articles not relevant to the theme of this paper; undergraduate thesis. Thirty articles were found on the platform, of which six were selected based on the established criteria. **RESULTS:** Studies conducted with children observed that those with obesity slept fewer hours than those without the condition. While the mechanisms justifying the relationship between sleep deprivation and obesity are not yet fully understood, it is acknowledged that adequate sleep duration is crucial for the regulation of metabolic and hormonal activities. Thus, the most plausible and accepted explanation is that eating behavior is influenced by sleep duration through endocrinological mechanisms involving cortisol, insulin, ghrelin, and leptin. Therefore, disruption of the circadian rhythm may alter the levels of these hormones, affecting appetite, satiety, and energy levels, thereby favoring increased food intake, particularly high-energy-dense foods, which is one of the main factors contributing to obesity. Another associated factor may be the tendency toward sedentary habits, such as increased screen time, which also contributes to sleep delay - timing is another aspect that may promote obesity. **CONCLUSION:** There are significant associations between sleep duration and obesity in children, indicating that sleep deprivation may stimulate factors associated with the development of the disease, such as sedentary habits and, primarily, poor dietary choices. Therefore, raising awareness about adequate sleep duration is crucial as one of the preventive factors for childhood obesity.

17. **THE NUTRITIONAL TRANSITION BETWEEN OBESITY AND MALNUTRITION**

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**INTRODUCTION:** Obesity and malnutrition are extremes that stigmatize and adversely affect an individual's health. In children, the presence of these conditions serves as a warning sign, as they are responsible for bringing consequences into adulthood and serve as good indicators of a population's health. Therefore, it is crucial to understand nutritional transition in the current context as a public health issue. **METHODS:** This is a literature review, in which scientific evidence was sought through articles in multiple databases such as Google Scholar, PubMed and Scientific Journals. The words Obesity, Malnutrition and Child Development were used as descriptors. The inclusion criteria were articles with up to 5 years of publication and exclusion criteria, those with a longer period of time and which didn't directly relate the study variables. Of the 10 articles, 9 demonstrated relevance to the topic. **RESULTS:** Nine studies were included, most of which focused on the comparison of obesity and malnutrition rates, and the effects of these changes over time. For years, child malnutrition prevailed, however, with modernization, there is a trend towards a decrease in these rates and an increase in the number of cases of overweight and obesity, due to a higher consumption of hypercaloric foods. The increase in these rates is associated with a higher prevalence of chronic diseases in childhood, such as diabetes and cardiovascular diseases. The articles also highlighted significant associated psychosocial changes, such as low self-esteem, relationship problems and social interaction, which affect the quality of child development. **CONCLUSION:** This review highlights the importance of addressing both childhood malnutrition and obesity with attention and appropriate actions. It is necessary to implement strategies that promote balanced nutrition and early nutrition education, aiming not only at physical health but also at the psychological well-being of children. Additionally, it is necessary to continue researching and monitoring these health issues to develop effective approaches in prevention and treatment, ensuring that future generations have a solid foundation for a healthy life, with a reduction in the number of cases of non-communicable diseases.

18. **TUBERCULOSIS IN THE INTERVAL FROM 2013 TO 2022 IN THE HEALTH REGION OF IMPERATRIZ-MA**

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**INTRODUCTION:** Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis*. In developing countries, it is a cause of morbidity and mortality and its incidence is associated with social inequalities, aging and difficulty in accessing and performing health services. In the state of Maranhão, the case incidence coefficient was approximately 30.3 cases per hundred thousand inhabitants; in the capital, São Luís, it reached 62.3 per one hundred thousand inhabitants and in the city of Imperatriz, according to data from the State Health Plan, in the period 2016 and 2019, it was 10.2 cases per one hundred thousand inhabitants. Furthermore, TB may also be associated with infections and chronic diseases, such as Human Immunodeficiency Virus (HIV) infection and Diabetes Mellitus (DM). In this sense, epidemiological studies are necessary that portray the current reality and the need for effective interventions. **METHODS:** This is a descriptive and quantitative study, carried out using the TABNET platform of the Information Technology Department of the Unified Health System (DATASUS). The data collected referred to tuberculosis cases confirmed in the Imperatriz Health Region, in the state of Maranhão, registered between 2013 and 2022, considering the following variables: sex, age, race, education, HIV diagnosis and DM. The results were presented using tables and figures that display relative and absolute frequencies of the data. Using Excel Software, the data obtained from the TABNET system was organized using quantitative and qualitative tables. **RESULTS:** 2022 was the year with the highest number of new cases (181 notifications). Of the individuals reported with tuberculosis between 2013 and 2022, there was a prevalence mainly between 20 and 39 years old (37.85%), also among men (63.17%), mixed race (63.38%) and individuals with up to the 4th grade of primary education (21.01%). Furthermore, 5.40% were diagnosed positive for HIV and 11.08% for DM. **CONCLUSION:** Analysis of the prevalence of tuberculosis cases in the Imperatriz Health Region becomes essential for combating the disease, as it helps by offering relevant data to combat existing cases and prevent new ones, especially in endemic regions.

19. **THE URGENCY OF AMOEBIASIS IN THE BAIXADA MARANHENSE: EPIDEMIOLOGICAL ANALYSIS FROM 2013 TO 2023**

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**INTRODUCTION:** Amebiasis is a parasitic disease caused by the protozoan *Entamoeba histolytica*, capable of causing amoebic dysentery and significant extraintestinal diseases contributing to the morbidity and mortality of the population, particularly in areas with poor hygiene and inadequate sanitation education. Thus, the aim of this study was to describe the prevalence of hospitalizations due to amebiasis in the Baixada Maranhense from 2013 to 2023, compared to the national scenario. **METHODS:** This is a descriptive, cross-sectional, and quantitative study. Secondary data on hospitalizations related to amebiasis were collected from the Department of Informatics of the Unified Health System (TabNET/DATASUS). The variables amebiasis, hospitalizations, region/federal unit, health macroregion/municipality, IBGE microregion/municipality, and the period from August 2013 to August 2023 were considered in the analysis. **RESULTS:** Brazil presents 14,381 cases of hospitalizations due to amebiasis, of which 37.04% correspond to the Northeast Region (5,328 cases), ranking second after the North Region (6,273 cases), with 43.62%. In the Northeast Region, Maranhão stands out as the leader in the number of hospitalizations, ranking second nationally with 3,253 cases. In the Maranhão context, the Southern Macroregion presents the lowest number of hospitalizations (73 cases), while the Northern Macroregion leads with 2,081 cases, representing 63.97% of the state's total. The Baixada Maranhense Microregion stands out in this context, contributing 1,354 hospitalizations, which corresponds to 65.06% of cases in the Northern Macroregion, 41.62% of cases in Maranhão, 25.41% of cases in the Northeast Region, and 9.41% of cases in Brazil. **CONCLUSION:** The urgency of the situation is evidenced by the high number of cases in this microregion, representing not only a significant portion of hospitalizations in the Northeast Region and the state of Maranhão but also an alarming share of cases at the national level. The high concentration of cases in this microregion is driven by low levels of basic sanitation, precarious socioeconomic conditions, limited availability of resources, and lack of preventive education. It is essential to direct investments towards the implementation of socio-educational measures aimed at raising awareness among the population about practices to prevent contamination and promoting significant improvements in basic sanitation infrastructure.

20. **VACCINE ABANDONMENT IN THE BAIXADA MARANHENSE FROM 2018 TO 2022 AND ITS IMPLICATIONS FOR CHILDREN**

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**INTRODUCTION:** The importance of vaccination coverage is irrefutable, especially in needy regions such as the Baixada Maranhense. However, concerns about the safety and efficacy of vaccines, as well as distrust of health authorities, foster a growing refusal to immunize, a fact that is related to the return of diseases that have already been eradicated in the country. The present study aims to analyze non-immunization in the Baixada Maranhense region and expose its possible consequences for the child population. **METHODS:** This is a descriptive quantitative study based on secondary data from the Department of Informatics of the Unified Health System (DATASUS), outpatient production (SINAN/SUS) on the rate of immunization abandonment by municipality in the Baixada Maranhense region during the years 2018 to 2022, with the observation of the variables quantities of doses, difference between the application of the first dose and the second dose by age, as well as the type of immunobiological refused. **RESULTS:** Thus, there is an abyss between individuals who received both doses of the vaccines. However, when we try to detail the groups belonging to the vaccination dropout rate according to age and the type of immunobiological not applied, a failure in the record is obtained, considering that these variables were ignored for the tabulation of the information. According to the data obtained, it is noted that there was a difference of 142,976 people who took only one dose of vaccine, which makes up a total dropout rate of 18.6% in the period in question. This percentage may be higher or lower when analyzing vaccine dropout by municipalities, with the municipality of Penalva being the one with the highest dropout rate between one dose of vaccines and another, about 27.62%. This vaccine refusal increases the risk of outbreaks of vaccine-preventable diseases, such as measles, pertussis, and polio, in addition to favoring complications from diseases such as influenza, circumstances that put unvaccinated children at risk of contracting serious and life-threatening diseases. **CONCLUSION:** Therefore, after an analysis of the above-mentioned data, it is essential to have a more detailed record of the information for a better knowledge of the groups that are most hesitant about vaccination, in order to make changes to this population, in order to avoid the reappearance of diseases, as well as complications of diseases, which can mainly affect children, because they have weakened immunity.

**21. THERAPEUTIC APPROACH TO COMPLICATED BILIARY ASCARIASIS IN PRESCHOOL AGE CHILDREN**

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**INTRODUCTION:** Ascariasis is widely associated with poor sanitary conditions. Preschool age children are the most affected group by *Ascaris lumbricoides* and demonstrate higher susceptibility to complications caused by this parasite. Mechanical obstruction caused by the presence of worms in the bile ducts requires a distinct therapeutic approach from the conventional use of anthelmintic drugs. Thus, the aim of this study is to identify appropriate practice for complicated biliary ascariasis in pediatric patients, contributing to the reduction of mortality resulting from this parasitic infection.

**METHODS:** This is a qualitative study based on articles and case reports published in the last 15 years in the Scielo electronic database. The descriptors "complicated ascariasis in children," "treatment of biliary ascariasis," and "surgical treatment of obstructive jaundice" were used. **RESULTS:** The presence of *A. lumbricoides* in the bile ducts can lead to complications such as cholangitis, acalculous cholecystitis, obstructive jaundice, hepatic abscesses, pancreatitis, and their sequelae. Anthelmintics such as piperazine, albendazole, and mebendazole are often prescribed to treat parasitic infections. However, this approach is discouraged in the case of biliary ascariasis since these medications cause the persistence of the dead parasite within the bile ducts. Therefore, worm extraction through endoscopic retrograde cholangiopancreatography (ERCP) is the most recommended approach among authors. In cases where hepatic abscess is identified or endoscopic treatment is unsuccessful, surgical intervention is indicated, possibly requiring choledochotomy, choledochoduodenostomy, or cholecystectomy. After postoperative return to normal peristalsis and complete biliary duct obstruction resolution, patients may receive anthelmintic treatment combined with antibiotic therapy. **CONCLUSION:** Children aged 2 to 5 years are more susceptible to complications of biliary ascariasis due to the smaller dimensions of the common bile duct compared to the parasite's diameter. Therefore, the use of anthelmintics is not recommended, as these medications facilitate the obstruction of bile ducts by the dead parasite. Thus, treatment through ERCP is highly recommended; however, when this procedure proves ineffective, surgical intervention becomes necessary.

**22. THERAPEUTIC APPROACH OF POST-TRAUMATIC STRESS DISORDER: A REVIEW FROM THE CURRENT LITERATURE**

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**INTRODUCTION:** The post-traumatic stress disorder (PTSD) is a psychiatric condition defined by symptoms related to deep psychological suffering at least a month after exposure to a traumatic event. It is becoming very prevalent among the civilian population due to, especially, the high sexual and urban violence, interfering in the life quality of those affected. The current treatment of this disorder is based in two different paths: the non-pharmacological and the pharmacological one. However, there are countless challenges in this current approach because of the involvement of various neurobiological systems and the uncertain etiology of PTSD. This review aims to evaluate the efficacy and the difficulties of the therapeutic approach of post-traumatic stress disorder. **METHODS:** This study consists in a literature review, based on articles published in portuguese and in english on the data bases Scielo, PubMed and Scholar Google. **RESULTS:** Trauma-focused psychotherapies, such as Prolonged Exposure and Cognitive Processing Therapy, are, nowadays, the first line treatment of PTSD. They play a significant role in the cognitive restructuring of the traumatized individual, making it possible for him to re-interpret and ressignificate traumatic memories. Nevertheless, this approach may be insufficient in severe cases and is related to high dropout rates. The pharmacological treatment is associated in face of an insufficient response to the psychotherapies. It targets the monoaminergic imbalance present in the pathogenesis of the disorder by the use of Selective Serotonin Reuptake Inhibitors (SSRI) paroxetine and sertraline or Selective Serotonin-Norepinephrine Reuptake Inhibitors (SNRI) venlafaxine, which have, in general, well tolerated side effects. Nonetheless, they have a great potential for generating dependence in chronic use. Furthermore, studies demonstrate that only 25% of patients obtain good clinical response by the use of these medications. **CONCLUSION:** It is evident that the current alternatives available for treatment of PTSD have several limitations, which brings out the need of new studies willing to elucidate the actual benefits of the drugs used to treat the disorder in resistant cases. It is also important the creation of new strategies to improve the therapeutic alliance.

**23. APPROACH TO THERAPY FOR ACUTE GASTROENTERITIS IN PEDIATRIC PATIENTS: A BIBLIOGRAPHIC REVIEW**

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**INTRODUCTION:** Acute Gastroenteritis (AGE) is defined as an inflammation of the lower intestinal tract that lasts up to 14 days and its main symptoms are abdominal discomfort, colic, nausea, vomiting and diarrhea. GEA is responsible for more than 1 million consultations, 150,000 hospitalizations and 250 deaths in children, with a higher incidence in children under 5 years old, and is related to sanitary issues such as poor personal hygiene, basic sanitation and water quality. This study aims to explore the literature that analyzes the occurrence of GEA in pediatric patients, in order to add knowledge about its treatment. **METHODS:** This is a literature review carried out in October 2023, based on a search carried out in October 2023 for the terms "gastroenteritis" and "pediatric patients" in meta-analysis articles and randomized control trials with full-text availability published from March 2021 to August 2023 and cataloged in the PubMed virtual library. Out of a total of 12 articles found, 6 were selected, and those that did not deal primarily with treatment related to gastroenteritis in pediatric patients were excluded. **RESULTS:** The possibility of treatment with probiotics such as *Lactobacillus rhamnosus* R0011/*L. helveticus* R0052 or *L. rhamnosus* GG was raised, but these did not prove to be effective in comparison with the placebo group. *Saccharomyces boulardii* CNCM and *Bacillus clausii* were also compared, and both showed improvements in secondary complications and were well tolerated, with the first group showing a significant reduction in the average duration of diarrhea. The drug ondansetron was also tested and proved effective in stopping vomiting episodes and reducing intravenous rehydration rates. In addition, treatment adherence factors were evaluated, highlighting advanced age, longer duration of vomiting, greater dehydration and hospitalization as being associated with lower adherence rates. **CONCLUSION:** Some probiotics, as well as the drug ondansetron, have been shown to be effective in treating GEA in pediatric patients. In addition, factors such as age and level of dehydration at the onset of the disease were associated with lower adherence to treatment.

**24. SPONTANEOUS ABORTION IN MARANHÃO, FROM JUNE 2020 TO JUNE 2023**

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**INTRODUCTION:** Abortion is the termination of pregnancy before fetal viability is reached, definitively and irreversibly, and can be either spontaneous or induced. Spontaneous abortion mainly occurs in the first trimester and is characterized by the involuntary loss of the fetus due to natural causes, without being elective or through medical intervention. Maternal-fetal causes include embryonic malformations, acute infection, uterine developmental anomalies, exposure to teratogens, endocrine dysfunction, among others. It constitutes a public health problem in Brazil due to its high incidence and serious consequences for women's health, causing emotional distress and triggering physical and mental illnesses. Therefore, the objective is to describe the epidemiological panorama of spontaneous abortion cases in the state of Maranhão. **METHOD:** This is a descriptive epidemiological study based on hospital morbidity data provided by the Department of Health Information System (DATASUS). The study population consisted of cases of hospitalizations in the Unified Health System (SUS) of women who had a spontaneous abortion in Maranhão from June 2020 to June 2023. **RESULTS:** During the study period, there were 14,123 hospitalizations due to spontaneous abortion in Maranhão, with women aged 20 to 29 being the most affected age group, accounting for 46.78% of hospitalizations, followed by the age group of 30 to 39 with 31.18%. In 2021, there were 5,185 hospitalizations due to spontaneous abortion, followed by a 16.68% reduction in the following year, with 1,828 hospitalizations until June 2023. Approximately 95.47% of cases were attended to in emergency services. The Northern macro-region had the highest number of patients requiring hospitalization. The total expenditure was R\$2,975,542 in this period, corresponding to a total of 24,831 hospitalization days, averaging about 1.8 days of hospitalization per patient. **CONCLUSION:** Therefore, spontaneous abortion can be considered a public health problem in Maranhão. This is because the majority of cases occur in the young age group, which could be prevented through improvements in public health services focused on family planning and prenatal care.



**25. SNAKE ACCIDENTS IN MARANHÃO: AN EPIDEMIOLOGICAL ANALYSIS BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Snakebite or snakebite is poisoning resulting from snake bites. In Brazil, there are four genera of snakes of interest in public health: Bothrops (jararacas), Micrurus (corals), Crotalus (rattlesnakes) and Lachesis (surucucus). These snakes produce a venom in their venomous glands, which is capable of causing physiological and biological changes, which can result in inflammatory processes, hemorrhagic, necrotic, myotoxic, cytolytic and cholinergic manifestations. Thus, the objective is to analyze epidemiological data on snakebites in Maranhão (MA) between 2018 and 2022, considering incidence, main genera involved and percentage of mortality. **METHODS:** This study proposes to carry out a retrospective descriptive epidemiological analysis by collecting data obtained by the TABNET digital platform, from the Department of Information and Informatics of the SUS (DATASUS), on snakebites in MA in the period between 2018 and 2022. **RESULTS:** According to DATASUS, between 2018 and 2022, 25,230 cases of snakebite accidents, with or without venom, were reported. Of these, the genus Bothrops represented the main group causing accidents with 27.38% of cases, followed by the genus Crotalus with 9.54%, non-venomous snakes with 1.85%, Micrurus 0.41% and Lachesis with 0.22%. However, in 60.59% of notifications, the gender of the snakes was not specified. Another relevant data refers to the year 2021, in which 5,310 snakebites were recorded, with a fatality rate of around 0.73%. Comparatively, in 2018, 4,624 cases were recorded, of which 0.63% resulted in death. Through this information, an increase of 14.8% in the number of cases of snakebite was observed within a three-year period, as well as a 34.4% increase in fatal outcomes. It is worth highlighting that the main genera causing the accidents were Bothrops and Crotalus. Both have toxins in their venom capable of triggering important coagulation disorders and hemorrhagic events, which can lead to the patient's death, especially Bothrops venom. **CONCLUSION:** Snakebite in MA is a public health problem, not only due to the increasing numbers, especially of genera such as Bothrops and Crotalus, but also due to its clinical severity and possible unfavorable evolution. Therefore, the need to intensify prevention measures is highlighted, aiming to reduce the number of victims and, consequently, fatal complications.

**26. NEUROLOGICAL CHANGES IN PATIENTS WITH LEPROSY**

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**INTRODUCTION:** Leprosy is an infectious and chronic disease with high incidence in needy populations. The neurological changes caused by this condition are among the aspects of the disease that seek to avoid and alleviate. Thus, this study aims to describe the possible neurological sequelae in patients affected by leprosy. **METHODS:** To carry out this narrative review, a search was performed in the databases of the Scientific Electronic Library Online (SciELO), PubMed Central, and Google Scholar, using the combined and individual descriptors in Portuguese or English "Leprosy," "Neurology," and "Sequelae," covering the period from 2018 to 2023. **RESULTS:** Five articles were selected that were in line with the objective of this study. One of the main clinical signs that indicate a patient has been infected with Mycobacterium leprae is neurological, with sensory and motor neuropathy being the primary manifestations. Sensory neuropathy involves the progressive loss of thermal, painful, and tactile sensitivity as the disease advances. In more advanced stages, motor neuropathy leads to thickening of the affected nerves, muscle atrophy, and consequent functional impairment. The characteristic loss of sensitivity in these patients' peripheral nerves also makes them susceptible to plantar ulcerations, which can be mistaken for diabetic neuropathy, complicating early diagnosis to prevent more severe neurological complications of leprosy. **CONCLUSION:** Therefore, leprosy is a condition that requires early diagnosis to prevent infected patients from developing neurological changes and losing their quality of life. Early diagnosis is also essential to limit the spread of the disease. Hence, healthcare professionals need to be up-to-date and trained to identify individuals with the potential to contract the etiological agent. Furthermore, the community plays a crucial role in providing better care and assistance to the population affected by leprosy.

27. **COMPARATIVE ANALYSIS OF MORTALITY FROM PUERPERAL HYSTERECTOMY IN THE REGIONS OF BRAZIL**

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**INTRODUCTION:** The postpartum period, popularly known as “reservoir”, is defined as the period in which the woman undergoes physical and psychological changes and can be divided into three phases, namely the immediate phase (1 to 10 days), late (11 to 42 days) or remote (from 43 days). This period extends until the moment when the woman's body returns to its normal state (pre-pregnancy) and begins to ovulate again. Puerperal hysterectomy refers to the surgical removal of the uterus during pregnancy, childbirth or the postpartum period, resulting from serious complications at any of these stages. This study aims to analyze mortality from puerperal hysterectomy and compare statistics according to each region of Brazil. **METHODS:** This is a descriptive cross-sectional study, with a quantitative and comparative approach, which used Hospital Production data from the SUS Hospital Information System (SIH/SUS), available on the platform of the Information Technology Department of the Unified Health System (DATASUS). The following aspects were analyzed: hospitalizations, average value per hospitalization (VMI), deaths and mortality rate (MT) in each region of the country in the period from 2013 to 2022. **RESULTS:** In the analyzed scenario, it was recorded in the Southeast region (SE), the highest number of hospitalizations (2,450), IMV (R\$1,552.04) and deaths (139), in addition to a MT of 5.67. In the North region (N), 243 hospitalizations were observed, VMI of R\$1,050.09, 9 deaths and MT of 3.70, being the lowest values recorded during the period in all variables when compared to other Brazilian regions. The Central-West region (CO) had the highest MT among the regions, reaching 7.53, while the number of hospitalizations was 385, the VMI was R\$1,515.52 and a total of 29 deaths. **CONCLUSION:** The data suggest that the CO region, despite having the second lowest number of hospitalizations, has the highest mortality rate in the group, while the SE region - which has the highest number of hospitalizations, which is expected as it also has the largest population in the country - has the third smallest MT. Therefore, a more detailed study of this procedure and its regional involvement is necessary, as well as the implementation of health strategies aimed at early diagnosing the complications that culminate in puerperal hysterectomy and understanding which aspects are present in cases that progress to death, in order to reduce the resulting mortality.

28. **COMPARATIVE ANALYSIS OF DEATHS FROM BRONCHIAL AND LUNG CANCER IN BRAZIL IN 2016 AND 2021**

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**INTRODUCTION:** Mortality from bronchial and lung cancer, although considered a preventable cancer, was 28,632 in Brazil in 2018, representing 12.74% of all cases, followed by breast cancer with 17,763 (7.9%) and prostate cancer with 15,576 (6.93%). In 2020, bronchial and lung cancer was considered the world's leading preventable cause of cancer death, causing 29.7 million deaths. However, in the same year in Brazil, lung cancer was also the leading cause of cancer death, which was responsible for 35,160 deaths, mainly in males. **METHODS:** This is an ecological time series study carried out using information from DATASUS, available on SIM, for the period 2016-2021. The study population was made up of deaths registered due to malignant neoplasms of the bronchi and lungs (ICD 10-C34). The variables were: gender and Brazilian regions. They were analyzed using descriptive statistics. **RESULTS:** In Brazil, the number of deaths from neoplasms between 2016-2021 was 1,345,252, of which 170,265 (12.65%) were caused by lung and bronchial cancer. Males accounted for 96,793 (57%) of deaths and females 73,472 (43%). When analyzing by region, the North registered the lowest number, 7,780 (4%), followed by the Midwest with 11,366 (6.68%). The Southeast showed the highest number of deaths with 77,646 (45.56%), followed by the South with 40,236 (23.63%) and the Northeast with 33,237 (19.52%). **CONCLUSION:** This study showed that bronchial and lung cancer is more common in young women, but the incidence of death is higher in men, since lifestyle habits can influence the onset of the disease. As for the regions, in 2021 there was an increase in cases compared to 2016, explained mainly by the appearance of COVID-19, since the disease mainly affected the respiratory tract. It is therefore urgent to create public policies that facilitate the reduction of exposure to the main risk factors, such as tobacco consumption (any form), alcohol consumption, environmental and occupational risks and infectious agents. In addition, it offers advanced treatment in view of the lack of investment which leads to a major barrier to access, given that treatment for advanced lung cancer is greater than the amount disbursed by the SUS.

**29. ANALYSIS OF ESTIMATED INCIDENCE OF OVARIAN CANCER IN MARANHÃO AND IN BRAZIL (2020-2023)**

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**INTRODUCTION:** Ovarian cancer is the second most common gynecological neoplasm, with high prevalence and mortality rates in the general population. The origin of ovarian malignancy is multifactorial, with aging, genetic and environmental conditions being among the main risk factors. Due to the lack of specific initial symptoms of the disease, associated with poor scientific evidence that recommends its screening, most of its diagnoses are made in advanced stages, which gives it a poor prognosis, highlighting the importance of this thematic. This study aims to analyze estimates of the occurrence of ovarian cancer at national, regional and state levels, in order to emphasize the relevance of that topic. **METHODS:** This is a descriptive epidemiological study made on data made available by Brazil's National Institute of Cancer (INCA), regarding the estimated incidence of ovarian cancer from 2020-2023 period. Used data is referring to Brazil, its Northeast region and the state of Maranhão, in order to carry out a comparative study. **RESULTS:** In Brazil, 7,310 new cases of ovarian malignancy are expected for 2023, representing a crude rate of 6.62 for every 100,000 inhabitants. This represents an increase of 9.9% from the year of 2020. It is the eighth most common cancer in women (3% of cases), and the second most common malignant gynecological tumor, second only to cervical carcinoma (7%). For the state of Maranhão, 140 new cases are expected for the same year, meaning approximately 1.51% of the incidence of all neoplasms in women in the Federation Unit, excepting non-melanoma skin cancer. This rate is much lower than that of the Northeast region (3.5%), so the state has the lowest incidence in the area. There was an increase of around 16% in the northeastern incidence between the periods, while Maranhão rate remained stable. **CONCLUSION:** The study revealed a significant rate of ovarian cancer in Brazil, so this must be a latent public health concern in this country. The Northeast region appears to have the lowest incidence, with a rate much lower than the national rate. In Maranhão, despite having the lowest rate in its region, ovarian neoplasia is still present and lethal, so the state also deserves to be highlighted in the scope of public measures to prevent that neoplasm.

**30. ANALYSIS OF POST-MASTECTOMY RECONSTRUCTIVE MAMMOPLASTY WITH PROSTHESIS IN BRAZIL (2019-2020)**

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**INTRODUCTION:** Many cases of breast cancer, when treated and diagnosed properly, have a good prognosis, and treatment options range from chemotherapy to surgery. In a radical surgery (mastectomy), the entire breast is removed, and the procedure can bring numerous negative changes, such as damage to self-image. Thus, post-mastectomy prostheses become beneficial to the female public, being an alternative for the improvement of body image and quality of life. This work aims to outline the Brazilian epidemiological profile of reconstructive mammoplasty, done post-mastectomy and with the use of a prosthesis. **METHODS:** This is a descriptive, cross-sectional, retrospective epidemiological study, constructed through secondary data collected from the SIH/DATASUS. Data was collected about the number of hospitalizations for the procedure of reconstructive breast plastic surgery post-mastectomy with prosthesis implantation, analyzing region, year of service, nature of the service, and average length of stay. **RESULTS:** In the analyzed period, there were 4,355 post-mastectomy reconstructive breast surgeries with prosthesis implantation, with the Southeast region responsible for about 50% of the number of hospitalizations, followed by Northeast, South, Midwest, and North, which concentrates only 2.9% of the cases. Regarding the nature of the service, there was a majority of elective cases, with about 12% of emergency cases. All cases were considered of medium complexity. The national average hospital stay was 1.7 days, with the highest rate in the North region (2.4 days) and the lowest in the South region (1.1 days). There was no death record. The total cost of the procedure was R\$4,476,390.47, of which 50.5% were spent in the Southeast region. The national hospitalization cost had a median of R\$991.30, with an average cost of R\$1027.87, with the South region being the only one above average (R\$1195.24) and the North region obtaining the lowest value (R\$732.54). **CONCLUSION:** Mammoplasty is a procedure of medium complexity, low number of complications and can bring great benefits to mastectomized patients, however, it is not equally widespread across the country. This reality is the result of disparities in hospital infrastructure among the regions of Brazil and denounces failures in public health policies, in addition to demonstrating the importance of outlining an epidemiological profile to understand the needs of affected patients.

31. **ANALYSIS OF CHILDHOOD MORTALITY DUE TO PREVENTABLE CAUSES IN MARANHÃO BETWEEN 2017 AND 2021**

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**INTRODUCTION:** The Infant Mortality Rate (IMR) measures the number of deaths in children under 5 per 1,000 live births annually. Within the Northeast region of Brazil, Maranhão ranks second highest in preventable IMR. This indicates a lack of effective public policies mitigating this issue. Consequently, this study aimed to analyze preventable IMR rates in children under 5 residing in Maranhão from 2017 to 2021. **METHODS:** This ecological, descriptive study employed a quantitative approach, analyzing data from the Mortality Information System (SIM/DATASUS) on variables including "preventable causes," "age group," "color/race," and "municipality." The study population encompassed children under 5 in Maranhão who succumbed to preventable causes (International Classification of Diseases [ICD-10] codes) between 2017 and 2021. **RESULTS:** During the study period, Maranhão reported 9,445 preventable child deaths, with a peak of 2,095 in 2017 followed by a gradual decline, reaching a minimum of 1,717 in 2020. Notably, the five leading preventable causes were: "other causes" (28.66%, not entirely preventable); "improper pregnancy care" (22.26%); "inadequate newborn care" (16.28%); "insufficient childbirth care" (10.83%); and "deficient diagnosis and treatment" (8.81%). Age-wise, 47.07% of deaths occurred within 0-6 days, followed by 24.93% within 28-364 days. Regarding ethnicity, brown children comprised 66.64% of cases, while white, Black, Asian, and Indigenous children accounted for only 19.31%. Among the 217 municipalities, São Luiz (13.68%), Imperatriz (3.58%), and São José de Ribamar (3.46%) reported the highest death tolls, aligning with their higher population densities. **CONCLUSION:** Our findings underscore the necessity for comprehensive healthcare interventions targeting pregnancy, childbirth, and neonatal care to decrease preventable IMR. Additionally, evidence suggests limitations in healthcare strategies within larger cities, particularly pertaining to diagnosis and treatment, disproportionately impacting the brown and socioeconomically disadvantaged population.

32. **ANALYSIS OF MORTALITY DUE TO ISCHEMIC HEART DISEASE IN THE NORTHEAST OVER A DECADE**

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**INTRODUCTION:** Ischemic Heart Disease (IHD) is characterized by insufficient blood flow to meet the heart's demand for oxygen, resulting in irreversible structural changes in the myocardium. IHD is the leading cause of death among cardiovascular diseases in Brazil, with alarming numbers over the years. Thus, this study aims to analyze the mortality panorama of IHD in the Northeast region of the country from 2012 to 2021, in order to establish priorities for public health interventions. **METHODS:** This research is an epidemiological study of a descriptive and cross-sectional nature, with a quantitative approach. Secondary data were collected from the Mortality Information System (SIM), provided by the Department of Health Informatics of the Unified Health System (DATASUS). The variables used were death, state/federal unit, year, gender, age group, color/race, and education level. **RESULTS:** During the study period, the Northeast region recorded 291,192 deaths from IHD, accounting for 26% of the country's total, which reached 1,120,270. Regarding deaths by state in the region, 22% (n=63,099) occurred in Pernambuco, 19% (n=55,821) in Bahia, 16% (n=45,976) in Ceará, and 11% (n=33,002) in Maranhão. There was an increase in deaths from 2015 (n=29,142) to 2018 (n=30,579), with the highest number recorded in 2019 (n=31,315). Also noteworthy are the values in 2020 (n=29,386) and 2021 (n=30,161), a period that encompasses the peak of the COVID-19 pandemic. The male population is the most affected (57%), as well as the age group of 60 to 80 years or older (78%), data consistent with the epidemiological profile of IHD. Mortality is most observed among the brown ethnicity with 176,613 (61%) deaths, followed by white, which recorded 77,068 (26%). Mortality was considerably higher in individuals with no education, reaching 32% (n=91,936). **CONCLUSION:** It is evident that the increase in mortality accompanies the increase in age groups, and the highest records are observed in the most populous states of the region. The percentage increase in mortality occurred steadily over the years, with a slight increase in the number of deaths from 2019 onwards. Additionally, there is a shortage of current and relevant data on the variables studied regarding recent years, highlighting the need to update the platform and further direct public policies aimed at reducing mortality from IHD.

**33. ANALYSIS OF THE OCCURRENCE OF TUBERCULOSIS CASES IN THE STATE OF MARANHÃO**Priscila Praseres Nunes<sup>1</sup>; André Everton Facundes<sup>2</sup><sup>1</sup> Universidade Federal do Maranhão<sup>2</sup> União das Faculdades dos Grandes Lagos – UNILAGO

**INTRODUCTION:** Tuberculosis (TB) is an infectious disease caused by the bacterium *Mycobacterium tuberculosis*. Transmission is via the respiratory route, through the inhalation of aerosols produced by the cough, speech or sneeze of a patient with active TB, with the pulmonary form being the most common and of greatest relevance to Public Health. In Brazil, it is still an endemic and compulsory notifiable disease. Therefore, the objective of this work is to outline the cases that occurred in Maranhão in the last five years. **METHODS:** This is a descriptive and retrospective study whose data are included in DATASUS and the Notifiable Diseases Information System (SINAN), from 2018 to 2022, in Maranhão. The following aspects were addressed: municipality with the highest notification, closure situation, age group and gender. **RESULTS:** 13,895 cases of TB were reported in Maranhão in the period analyzed, with the highest rate in 2022 (3,198 notifications), with no significant differences in the number of cases between the years studied. Although, in 2020, the year of the Covid-19 pandemic, there was a small drop in notification numbers compared to previous years. The municipality with the highest notification was São Luís with 6,509 cases. The most affected age group was between 20 and 39 years old, in terms of gender, men are the most affected population with 9,394 cases. In conclusion, 8,191 cases resulted from a cure for TB and 650 cases resulted in deaths from the disease. **CONCLUSION:** Tuberculosis is still very common today, making it necessary to intensify prevention, diagnosis and control strategies for the disease, so as to minimize its occurrence in the State of Maranhão.

**34. ANALYSIS OF HOSPITALIZATIONS OF CHILDREN AGED 1 TO 4 YEARS DUE TO EXOGENOUS POISONING IN MARANHÃO**Anna Beatriz Costa Azevedo<sup>1</sup>, Antônia Márcia Dutra Rabelo<sup>2</sup>, Gustavo Bender Hendges<sup>2</sup>, Míuria Joyce Pereira Raposo<sup>2</sup>, Poliana Sousa Rapozo<sup>1</sup>, Lorrany Fontenele Nascimento<sup>1</sup><sup>1</sup> Universidade Federal do Maranhão<sup>2</sup> Universidade Estadual da Região Tocantina do Maranhão

**INTRODUCTION:** Exogenous intoxication refers to the set of harmful effects represented by clinical or laboratory manifestations revealing the organic imbalance produced by the interaction of one or more toxic agents with the biological system. During their growth and development, children - in a constant phase of exploration - are attracted to anything within their reach. Thus, they are frequently exposed to the risk of intoxication by exogenous agents. This study aims to analyze the profile of hospitalizations of children aged 1 to 4 years who fell victim to exogenous intoxication. **METHODS:** This is a descriptive cross-sectional study of an exploratory nature conducted through data from the DATASUS's Notification of Diseases Information System from 2013 to 2022, with no need for Ethics Committee approval. The analyzed age group corresponds to children aged 1 to 4 years, and the considered variables were gender, race, toxic agent, and circumstance. Data were tabulated and organized using Microsoft Excel 2019. **RESULTS:** From 2013 to 2022, 1,415 cases of exogenous intoxication in children aged 1 to 4 years were recorded in the state of Maranhão. There was a predominance of hospitalizations in males (54.7%) compared to females (45.3%). The toxic agent responsible for the highest number of hospitalizations was medication (45.37%), followed by household products (14.84%) and food and beverages (4.73%). The main circumstances leading to intoxications were accidental (975 cases), therapeutic use (161 cases), and ingestion of food (48 cases). Regarding race, the number of brown was higher, summing 1,178 out of the 1,415 recorded. The second place, with 103 occurrences, was occupied by the white race. **CONCLUSION:** The high number of hospitalizations due to exogenous intoxication in children aged 1 to 4 years, when associated with the main toxic agents and circumstances responsible for these hospitalizations, underscores the need to educate parents/guardians about basic daily preventive measures to reduce the incidence of such cases in the state.

35. **ANALYSIS OF HOSPITAL ADMISSIONS FOR PNEUMONIA IN CHILD PATIENTS IN MARANHÃO**

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**INTRODUCTION:** Pneumonia is an inflammation of the parenchyma of one or both lungs, usually caused by infections (bacterial, viral, fungal, and parasitic). Respiratory difficulties mostly affect children in the first 5 years of life, commonly between the ages of 6 and 24 months. Therefore, this study aims to analyze pediatric hospitalizations for pneumonia in Maranhão from 2013 to 2022.

**METHOD:** This is an ecological, cross-sectional analysis with a quantitative approach, using data from the Department of Informatics of the Unified Health System (DATASUS). Data regarding the number of hospitalizations, gender, race, age range from 0 to 19 years, deaths, and mortality rate were collected. **RESULTS:** During the evaluated period, a total of 218,061 pneumonia-related hospitalizations were observed in Maranhão, with a mortality rate of 8.6%. The majority of hospitalized patients were male (51.23%), with 111,724 admissions in the specified period. In the pediatric population, the age group of 1 to 4 years - for both males (27,985) and females (23,600) - had the highest number of disease-related hospitalizations. In the age group of 5 to 9 years, for females, and in 10 to 19 years, for males, the lowest number of hospitalizations was observed, with 7,632 and 7,787 cases, respectively. Regarding race, the highest number of cases occurred in the brown category (108,311), followed by yellow (9,156), white (6,829), and black (2,556).

**CONCLUSION:** This study highlights the high rate of pneumonia hospitalizations in children in Maranhão over a decade, predominantly in males, especially between 1 and 4 years. It also points out racial disparities, emphasizing the need for more equitable public health approaches. These findings underscore the importance of strategies to reduce the impact of childhood pneumonia in the state.

36. **ANALYSIS OF HOSPITALIZATIONS FOR SPONTANEOUS ABORTION IN THE NORTHEAST REGION BETWEEN 2013-2022**

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**INTRODUCTION:** Abortion is the termination of a pregnancy, which can be spontaneous or induced. Spontaneous abortion occurs when the loss of the fetus is due to natural causes, without any external intervention or intervention by the pregnant woman herself and, in order to fit into this classification, it must occur between the 20th and 22nd week at the latest. It is common for this type of abortion to result in hospitalizations, which is why this study analyzed hospital data in order to understand the prevalence, demographic characteristics and trends surrounding these hospitalizations in the Northeast region. **METHOD:** This was a descriptive epidemiological study, quantitative in nature and cross-sectional in approach. The data used was collected through the Hospital Information System (SIH/DATASUS) regarding hospitalizations in the ICD-10 category "spontaneous abortion" in the Northeast region, between 2013 and 2022. The variables analyzed included the number of hospitalizations, age group, color/race, total value and average value per hospitalization. **RESULTS:** In the period analyzed, there were 36,844 hospitalizations due to miscarriage in the Northeast, the second largest region in terms of population. This figure represents 40% of the total number of cases of the same cause in Brazil. The most affected age group was between 20 and 29 years old (n=159168). With regard to the color/race variable, there was a great disparity, with the brown population being the most affected (n=194181) and the indigenous population the least affected (n=557). The state of Bahia had the highest number of hospitalizations (n=90793), while Piauí had the lowest number (n=14724). The highest number of hospitalizations was recorded in 2014 (n=41089) and the lowest in 2022 (n=28332), showing a downward trend over the years. **CONCLUSION:** There is a significant burden of hospitalizations due to miscarriage in the Northeast region of Brazil, representing a significant public health challenge. The majority of hospitalizations occur in the state of Bahia, in the 20-29 age group and among the brown population. Although there is a downward trend in the number of hospitalizations over the period analyzed, it is essential to continue monitoring and developing health policies aimed at preventing miscarriage and supporting women who go through this situation, and this study is crucial for guiding these practices.

37. **ANALYSIS OF ADMISSIONS FOR CUTANEOUS LEISHMANIASIS IN MARANHÃO FROM 2018 TO 2023**

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**INTRODUCTION:** Leishmaniasis is an infectious disease caused by a protozoan of the genus *Leishmania* and transmitted to humans by female hematophagous insects. The cutaneous form, in Brazil, is the most common and its clinical presentation is characterized by ulcerated lesions on the skin and/or mucous membranes, with well-defined borders, infiltrated and which may present exudate. It is an endemic disease in tropical regions, treatable and with low mortality, but it can leave consequences, generating social and psychological repercussions. Therefore, the objective of the work is to understand the epidemiological profile of leishmaniasis in the state of Maranhão, since its high incidence has already been proven in Brazil. **METHOD:** This is an epidemiological, retrospective, quantitative and descriptive study based on data made available by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospital admissions due to cutaneous leishmaniasis, in the state of Maranhão, from July 2018 to July 2023. The correlated variables were: number of hospitalizations, year of care, sex, age group, deaths, average number of days of hospitalization. **RESULTS:** During the analyzed period, 103 hospitalizations were observed due to cutaneous leishmaniasis, of which 78.64% were urgent. The highest incidence was in the North macro-region with 53 cases (51.45%). The most affected population was between 40 and 59 years old, totaling 38 cases (36.89%). The highest hospitalization rates in the period studied were in 2022 with 26 hospitalizations (25.24%) followed by 2020 with 20 hospitalizations (19.41%). Males were more affected with 66 hospitalizations (64%) and mixed-race individuals had 63 cases (61.16%). The average length of stay during the studied period was 10.1 days with the highest stay rate in 2020 with 12.5 days followed by 2021 with 12.3 days. The only death recorded in this period was of a woman in 2020. In relation to public cost, an expenditure of more than 52 thousand was observed. **CONCLUSION:** Based on the data above, the need to adopt measures to prevent cases of leishmaniasis in Brazil is clear, given the possible complications, despite the low mortality. In this sense, vector control and screening of reservoir hosts, as well as vaccination of healthy dogs are important measures to minimize this public health problem.

38. **ANALYSIS OF HOSPITALIZATIONS AND MORTALITY RATE FROM BRONCHIECTASIA IN MARANHÃO ( 2018-2023)**

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**INTRODUCTION:** Bronchiectasis is an irreversible change in bronchial architecture, whose pathological course tends to progressively worsen, as the disease both favors new infections and is also aggravated by inflammatory processes. When experiencing this vicious cycle, the patient requires hospitalization. The objective of this study was to evaluate characteristics of hospitalizations due to this condition, comparing data at different geographic levels to understand the scenario in Maranhão. **METHODS:** This is an epidemiological study, based on a descriptive analysis of data from DATASUS (Ministério da Saúde), covering the period from February 2018 to July 2023. Data were analyzed at three geographic scales: Brazil (BR), Northeast (NE) and Maranhão (MA). The characteristics studied regarding bronchiectasis were number of hospitalizations, mortality rate (MT), age and sex. **RESULTS:** During the period investigated, there were 6,084 hospitalizations due to bronchiectasis in the country. Of these, more than 1/3 occurred in the NE (2,392), with greater frequency in children under 1 year of age (370). Females were hospitalized more often, 51.54% in BR; 50.71% in NE; 61.94% in MA. From an age perspective, there were two peaks in hospitalizations. The first in age up to 4 years (21.67% in BR; 25% in NE; 23.88% in MA and 75.6% hospitalizations from January to July 2023 in MA). The second was from 40 to 69 years old (36.85% in BR; 35% in NE; 34% in MA). In Maranhão, hospitalizations in children up to 4 years of age in the first 7 months of 2023 correspond to 52.54 hospitalizations in this age group since 2018. The MT increased with advancing age, reaching a maximum above 80 years: 12.5% in BR; 13.71% in NE; 10% in MA. The MT for bronchiectasis in the NE was 4.01%, therefore higher than the national rate of 3.57%. In addition to having the 2nd largest MT in the country, the NE accumulated the highest number of deaths (96). The MT in MA was lower than the national rate, at 2.83%, and in this state there were no deaths due to bronchiectasis in individuals under the age of 39. **CONCLUSION:** The study suggests the need for greater discussion about bronchiectasis in NE, given the unfavorable profile of hospitalizations and mortality exposed. The atypical increase in hospitalizations in children up to 4 years of age, between January and July 2023, in the state of Maranhão, requires special attention and intervention. Although the mortality rate in this age group is low, it is noteworthy that the disease is chronic and compromises the patient's quality of life.

39. **RISK ANALYSIS OF PATIENTS WITH LEUKEMIA: CONTRIBUTIONS TO THE STUDY OF ONCOLOGICAL PROGNOSIS**

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**INTRODUCTION:** Leukemias are a group of diseases that share a common proliferative pathogenesis and occur within vascular beds. Typically, leukemia can be of myeloid or lymphoid lineage and classified as acute or chronic in nature. From this perspective, leukemias are acute and potentially fatal if not treated. The objective is to evaluate the factors that may be related to hospitalizations and deaths from leukemia within the Brazilian public health network through a retrospective documentary study. **METHODS:** This is a retrospective study with an analytical approach, carried out on data accessed via the access to information law (Law nº 12,527, sanctioned on November 18, 2011). The data were obtained from official records of hospitalizations resulting from Leukemia in the last five years (August 2017 to August 2022). Data were processed by Gaph Pad Prism software (GaphPad Software for Science, San Diego CA). Second Pearson coefficient and Odds Ratio Analysis. **RESULTS:** The analysis of hospitalizations in the last five years shows that there is a tendency towards a negative correlation, ( $r^2 = -0.8589$ ) showing that a greater number of leukemia cases affect younger people ( $p < 0.001$ ) (children between 1 and 4 years makes up the most significant age group), the group of age groups from 1 to 12 years old accounts for 44.34% of cases. The findings are corroborated by the study by Brayley et al., (2019), which points out that leukemia is the most common cancer in children with wide manifestations, from a relatively well child to life-threatening complications. In relation to deaths, the Pearson correlation is positive ( $r^2 = 0.8566$ ), showing that there is a strong positive correlation between deaths and age ( $p > 0.001$ ). In this context, 56.33% of deaths are of patients aged 50 and over, even though this age group accounts for only 23.58% of cases. The data show that males have a slight but significant higher risk of death from leukemia, the risk varies from 1.086 (1.047 to 1.126) times higher for men compared to women, considering  $p < 0.05$ . **CONCLUSION:** The data allow us to conclude that there are particular profiles that predispose to a poor prognosis related to increasing age, despite the majority of cases occurring in young people. Furthermore, it is worth mentioning that the risk of death is slightly higher in males, an important finding to be taken into consideration.

40. **ANALYSIS OF TEMPORAL TRENDS IN THE PNEUMONIA MORTALITY RATE IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Pneumonia is an acute inflammation of the lung parenchyma, triggered by microorganisms or inhalation of toxic substances. It is the leading cause of death in children under 5 years old and a significant factor in the mortality of the elderly, with a substantial impact in Maranhão. Therefore, this study aims to analyze temporal trends in the mortality rate due to pneumonia in the state of Maranhão. **METHODS:** This is an ecological, cross-sectional analysis with a quantitative approach, using data from the Department of Informatics of the Unified Health System (DATASUS). Data related to the number of hospitalizations, gender, race, age group, deaths, and mortality rate were collected. Prais-Winsten regressions were used to analyze the trends in incidence rates, considering autocorrelation in time series. Annual Increment Rates (AIR) and their confidence intervals were calculated. Statistical analysis was performed using SPSS 25.0 for Windows, adopting a significance level of 5%. **RESULTS:** From 2013 to 2022, 218,061 cases of pneumonia were recorded in Maranhão, with 111,724 cases in males and 106,337 in females. Additionally, approximately 245,461 hospitalizations and a total of 4,913 deaths for males and 4,499 deaths for females were reported. The age group of 1 to 4 years old in males had the highest number of hospitalizations (31,584), while in females, the age group of 50 to 79 years old had the highest (27,745). The mortality rate showed a growing trend, increasing from 2.44% (2013) to 5.18% (2022) in males and from 2.2% (2013) to 5.63% (2022) in females. Regarding race, the highest number of cases occurred in the "parda" category (113,893), followed by "amarela" (9,156), "branca" (6,829), and "preta" (2,556). The Prais-Winsten method demonstrated an increasing trend in pneumonia mortality cases in Maranhão for both males, with an AIR of 20.2 (15.3; 26.6;  $p < 0.001$ ), and females, 23.1 (17.8; 29.1;  $p < 0.001$ ). **CONCLUSION:** It is inferred that monitoring and temporal tracking of pneumonia in Maranhão are essential to assess improvements in access to healthcare services and the effectiveness of prevention actions over the years, representing a fundamental strategy for epidemiological surveillance.



**41. ANALYSIS OF THE HOSPITALIZATION PROFILE BY HEART FAILURE IN THE NORTHEAST BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Heart Failure (HF) is a complex condition in which the heart becomes inefficient for the proper pumping of blood into the body, generating a reduction in cardiac output or increased pressure when trying to reach its filling. This syndrome is characterized by the inability of the patient to perform usual activities and may have the presentation of symptoms (dyspnea, fatigue, edema, among others) even at rest. Therefore, it is a clinical condition that brings limitations to the individual's living standards. In addition, HF has various causes, such as coronary artery disease, acute myocardial infarction and arterial hypertension, which are diseases conditioned by aging sometimes. **METHODS:** This is a time series study regarding hospitalization data by Heart Failure in the Northeast, has been presented in the form of absolute and relative frequency. The variables adopted were: sex, age group and race/color and the data collected were in the period from 2018 to 2022, from secondary data extracted out of DATASUS. **RESULTS:** In the period analyzed by the research, the profile outlined in the Northeast presents a total of 208,532 cases, with Bahia (31.42%) as the state of highest prevalence, followed by Pernambuco (20.13%). Of all the cases in the region, there is a higher occurrence in males (113,188), with a corresponding age group between 70 and 79 years (51,087), with the predominant race being brown (118,103). **CONCLUSION:** Through the analysis of the profile of hospitalization for Heart Failure in the Northeast, among its states, it was observed that Bahia had a higher prevalence. In addition, there was a predominance in males, in the age group of 70 to 79 years and in the brown color/race over all number of cases. However, the aforementioned results do not coincide with the existing literature regarding Brazilian statistics, despite converging regarding the male sex, the highest rate of cases is in the age group of 80 years or more and in the white color/race. In short, the conclusions of this study can direct future research and improve public policies related to early diagnosis and prevention of a limiting disease. Investments in these areas are essential to promote a better quality of life and effectively face this public health challenge.

**42. ANALYSIS OF THE EPIDEMIOLOGICAL PROFILE OF MATERNAL DEATHS IN MARANHÃO FROM 2012 TO 2021**

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**INTRODUCTION:** Maternal deaths are those that occur during pregnancy, childbirth, or during the 42 days of postpartum. These numbers are important indicators regarding women's living conditions and health care, since, in developing countries, social and economic obstacles affect the population's health. The objective of this study was to analyze the epidemiological profile of maternal deaths, as well as understand who are the women who die most during the pregnancy-puerperal cycle. **METHODS:** This is a cross-sectional and retrospective study, analyzing secondary data on maternal deaths in the state of Maranhão from 2012 to 2021, coming from health information systems (DATASUS). Variables such as race, education, marital status, and age group were used. **RESULTS:** In the period described, 1.035 maternal deaths were recorded, with 2021 being the year with the highest number of deaths recorded (146 deaths). The majority of maternal deaths (74,7%) occurred due to direct obstetric death. Black women were the biggest victims (82,8%) and the most affected age group was 20 to 29 years old (32,6%). Only 21% of women were married and the majority (82,2%) had less than 12 years of education. Of the 1.035 deaths, 88% occurred in hospitals, 4,5% occurred at home and 2,8% occurred on public roads. Regarding the period of death, 29,6% of deaths occurred during pregnancy, childbirth, or abortion, 40,8% occurred during the postpartum period (up to 42 days) and 5,8% did not occur during pregnancy or the postpartum period. **CONCLUSION:** In Maranhão, the majority of victims of maternal deaths are black, single women without higher education and the majority of deaths occurred during the postpartum period (up to 42 days). Furthermore, socioeconomic factors influence this problem, as socially vulnerable individuals have more difficulty accessing health services. Therefore, it is important to know the profile of women who die as a result of the pregnancy-puerperal cycle, to promote healthcare policies that reach these women.

**43. ANALYSIS OF THE EPIDEMIOLOGICAL PROFILE OF GESTATIONAL TOXOPLASMOSIS IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Toxoplasmosis is a zoonosis caused by the intracellular protozoan *Toxoplasma gondii* (*T. gondii*) that affects humans and other warm-blooded animals. *T. gondii* infection is generally considered to pose a major risk of miscarriage, prematurity, and low birth weight. The transplacental passage of the parasite depends on several factors, such as the gestational period in which the infection occurs. The detect for this pathology during prenatal care is important, because the infection can occur without clinical manifestations. Therefore, this study have to identify the epidemiological profile of gestational toxoplasmosis in the state of Maranhão in the period from 2019 to 2022. **METHODS:** This is a descriptive epidemiological study based on data about gestational toxoplasmosis that are available in the Department of Informatics of the Unified System of Health (DATASUS). The population studied were pregnant women in the state of Maranhão, who have gestational toxoplasmosis between 2019 and 2022. The keywords used in the study were: "year of processing", "confirmed cases", "age group" and "education". **RESULTS:** During the analysis, there were 1,204 case notifications by pregnant women infected with toxoplasmosis in the state of Maranhão. Over the years, there has been a progressive increase in infection, so that in 2022 there was the highest number (n = 390, 32.39%), while in 2019 the lowest (n = 243, 20.18%). Regarding the cases confirmed throughout the study, there were a total of 777, with the majority of these cases being confirmed during the second trimester of pregnancy (n = 380, 48.91%). According to age group, 70.35% (n=847) of reported cases are aged 20-39, representing the majority, while only 1.58% (n=19) of reported cases are aged 40-59. years. About education, 38.21% (n=460) completed high school, 14.78% (n=178) did not complete high school and 0.58% (n=7) were illiterate. **CONCLUSION:** As a result, this study highlights the increase in the number of women infected with toxoplasmosis during pregnancy in the state of Maranhão. Similarly, it was found that the prevalence of cases in pregnant women occurs in the age group of 20 to 39 years, during the second trimester of pregnancy and that the majority of those infected have completed high school. Moreover, the identification of the most vulnerable groups makes it possible to urgently target intervention actions seeking the prevention, diagnosis and treatment of gestational toxoplasmosis in the state.

**44. ANALYSIS OF THE EPIDEMIOLOGICAL PROFILE OF AIDS CASES IN MARANHÃO FROM 2018 TO 2022**

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**INTRODUCTION:** Acquired Human Immunodeficiency Syndrome (AIDS) is an immunodepressant infectious disease caused by the Human Immunodeficiency Virus (HIV). HIV is an emerging infectious agent with high transmissibility and morbidity when not adequately treated, being one of the main public health problems globally. Therefore, this study seeks to better understand the epidemiological profile of AIDS in Maranhão. **METHODS:** This is a quantitative and retrospective cross-sectional study resulting from the survey of AIDS epidemiological data in Maranhão from 2018 to 2022. The data were obtained through the Information and Notifiable Diseases System (SINAN) and made available by the Information Technology Department of the Unified Health System (DATASUS). For the epidemiological analysis, the variables gender, race, age group and municipality of residence were evaluated. The information obtained was statistically analyzed to identify patterns and epidemiological trends related to AIDS in the state. **RESULTS:** In the period from 2018 to 2022, according to SINAN data, 1,860 cases of AIDS were diagnosed in Maranhão. Among these, a higher frequency was found in males, equivalent to 64.6%, and in the age groups of 35-49 years and 20-34 years, representing respectively 39.5% and 37.5% of total AIDS cases. in the period analyzed. Regarding race, the highest frequency of the disease was observed in brown individuals, with 71.8%. Furthermore, São Luís had the highest number of cases diagnosed per municipality (58.8%), followed by Imperatriz (13.1%) and Caxias (6.2%). **CONCLUSION:** In view of the above, there is a high frequency of new cases of AIDS in Maranhão, especially in the urban environment due to the strong relationship between the disease and the degree of development and population size. It is also possible to observe that the population group made up of men, mixed race and young adults is the most frequently affected by the disease. This epidemiological trend may be related to risky sexual behaviors or a deficit in sexual education, frequently observed in this group. Therefore, health education measures focusing on groups at risk for HIV infection, in the long term, are important for reducing cases of the disease.

45. **ANALYSIS BETWEEN BCG VACCINE APPLICATIONS IN THE TARGET POPULATION, IN THE NORTHEAST, FROM 2018 TO 2022**

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**INTRODUCTION:** The BCG vaccine, so called because it is composed of the Calmette-Guérin bacillus, protects against serious forms of tuberculosis, a contagious disease, which, if not properly treated, can cause serious damage, such as respiratory conditions, and even lead to death. Thus, the vaccine is the form of immunization to prevent the disease and needs to be applied in a single dose, to the target population, all of whom are born alive, preferably on the day of birth. Therefore, the objective of this work is to analyze the number of doses of BCG applied, by state in the northeast region, from 2018 to 2022.

**METHODS:** This is an epidemiological, quantitative, descriptive study on BCG vaccination, with secondary data from the tabnet-DATASUS-Immunizations and tabnet-DATASUS-Vital Statistics, period from 2018 to 2022 in the northeast region of Brazil. The vaccination coverage indicator was calculated (total doses vaccinated, divided by the target population) for each state in the period analyzed.

**RESULTS:** 3,528,974 BCG applications were carried out in northeastern Brazil from 2018 to 2022. There was an oscillating trend in the period, with a decline from 2018 to 2021 and an increase in 2022. Bahia was the state with the highest number of vaccinations (n=803,652), followed by Pernambuco (n=626,228), Ceará (n=549,560), Maranhão (n=464,630), Paraíba (n=252,346), Alagoas (n=231,135), Piauí (n=225,172), Rio Grande do Norte (n=215,839) and, finally, Sergipe (n=160,412). As for vaccination coverage, Sergipe and Rio Grande do Norte lead with approximately 97% vaccinated target population, followed by Pernambuco (n≅96%), Alagoas (n≅95%), Piauí (n≅92%), Paraíba (n≅90%), Ceará (n≅88%), Maranhão (n≅87%) and, finally, Bahia (n≅85%). **CONCLUSION:** BCG vaccination is an important means of preventing worrying forms of tuberculosis. Therefore, it was observed that, in the Northeast, the states that administered the most vaccines were Sergipe and Rio Grande do Norte, with emphasis on Ceará, Maranhão and Bahia which, in a period of 5 years, did not reach 90% of vaccination coverage, which is the goal established by the National Immunization Program. In view of this, it is necessary to increase vaccination coverage in these states, through immunization campaigns, with the help of community agents in the active search for newborns, in addition to establishing vaccination in the maternity ward as a criterion for receiving hospital discharge, to reach the designated target and expand tuberculosis prevention.

46. **EPIDEMIOLOGICAL ANALYSIS OF MORTALITY CAUSED BY SICKLE CELL ANEMIA IN NORTHEAST OF BRAZIL IN THE LAST 10 YEARS**

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**INTRODUCTION:** Sickle cell anemia (SCA) is an autosomal recessive hereditary disease, in which there is a substitution mutation in the  $\beta$ -globin gene that causes abnormal hemoglobin type S (HbS). In this context, deficient red blood cells are susceptible to the sickling process, which induces inflammation and causes clinical repercussions that can lead to death, such as cerebral infarction and acute chest syndrome. Therefore, this work aimed to evaluate the epidemiological profile of SCA mortality in the Northeast region between 2012 and 2021.

**METHODS:** It consists of a descriptive epidemiological study, with a quantitative approach, based on data provided by the platform of the Department of Informatics of the Unified Health System (DATASUS). Information on mortality due to Sickle Cell Disorders (ICD code D57) was gathered from 2012 to 2021. The variables addressed were: sex, race/color, age group, education and place of death. **RESULTS:** During the period studied, the Northeast region occupied the second place with the highest number of deaths (1564), behind only the Southeast region, which had 2023 records. Regarding sex, there was a slight predominance of males, with 829 cases, that is 12% more than females. The most affected race/color was brown, with 971 occurrences, followed by black, with 371. In relation to age group, adults aged 20 to 24 and adolescents aged 15 to 19 stood out, with 176 and 169 cases, respectively. There was also a significant prevalence in children aged zero to ten years with 355 deaths (22.6%). About the education, among the applicable cases, only 81 people completed primary education, that represents 7.3%. 82% of deaths occurred in the hospital environment (1286 records). This situation is explained by the successive hospitalizations faced by patients with SCA, since the complications generated by sickling crises, if not properly prevented, become recurrent. **CONCLUSION:** The study carried out proves the need for further discussions regarding the prevention of mortality caused by sickle cell disorders, as it affects different age groups, including children. The risk factors stand out as male individuals, aged 20 to 24, with incomplete primary education and who required hospitalization due to the disease.

**47. EPIDEMIOLOGICAL ANALYSIS OF SYPHILIS ACQUIRED IN MARANHÃO BETWEEN THE YEARS OF 2018 AND 2021**

Fernando Vinicius Brandão Rocha de Almeida<sup>1</sup>; Alynne Bayma dos Santos<sup>1</sup>; Bruna Leão Lemos Câmara<sup>1</sup>; Igor Gustavo da Silva Melo<sup>1</sup>; Mateus Oliveira Viana<sup>1</sup>; Mariana Alencar Bisinotto; Leonardo Bezerra Maciel<sup>1</sup>.

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**INTRODUCTION:** Syphilis is one of the most common sexually transmitted infections (STIs) in the world, with an alarming incidence of six million cases annually. Caused by the bacterium *Treponema pallidum* and classified as congenital or acquired (transmitted sexually or blood transfusion), syphilis can present different clinical manifestations. Although it is an easily treatable disease, when not treated properly, it can evolve into serious forms that can affect the central nervous and cardiovascular systems, leading to death. The high number of cases of acquired syphilis still reported over the years emphasizes the need to prioritize the quality of health care, as it is essential to plan control, prevention and surveillance actions related to this issue. With this perspective, the present study aims to analyze the epidemiological profile of people diagnosed with acquired syphilis in Maranhão between 2018 and 2021. **METHODS:** This is a descriptive, quantitative and retrospective epidemiological study with secondary data from syphilis cases acquired in Maranhão. The data were extracted from the Information Technology Department of the Unified Health System (DATASUS), with the following variables listed: age group, sex, race and education. **RESULTS:** During the period, 5,450 cases were reported, with 2018 (n=1,787) being the year with the highest number of infections (32.78%) and 2021 (n=674) the lowest (12.36%). Regarding age group, adults aged 20 to 39 years were the most infected, corresponding to 52.78% of cases (n=2,877), followed by the age group 40 to 59 years: 28.12% (n=1,533). Regarding sex, 56.09% (n=3,057) of infections were registered among men and 43.90% (n=2,393) among women. Furthermore, 68.89% (n=3,755) of those infected were brown. With regard to education, the majority had completed high school, recording a total of 1,275 (23.39%) occurrences. The outcome for the majority of those infected was cure: 2,030 (37.24%). **CONCLUSION:** In this analysis of the epidemiological profile of the population with acquired syphilis in Maranhão, the seriousness of the situation is evident. The high number of reported cases, especially among young adult men, highlights the need for preventive and awareness measures to be adopted by health authorities, aimed at this population. Therefore, improving notification and epidemiological surveillance is essential for more effective public health management.

**48. EPIDEMIOLOGICAL ANALYSIS OF MELANOMA IN MARANHÃO BETWEEN 2018 AND 2022**

Viviane da Silva de Sousa<sup>1</sup>; Flávio Augusto de Alencar Oliveira<sup>1</sup>; Layra Giovana Carvalho Câmara<sup>1</sup>; Vicente de Sousa Dias Neto<sup>1</sup>; Vitor Hugo Mesquita Seixas<sup>1</sup>; Sueli de Souza Costa<sup>1</sup>.

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**INTRODUCTION:** Malignant melanoma is caused by damage to the DNA of melanocytes due to excessive and unprotected exposure to ultraviolet (UV) rays. Melanoma manifests itself in the form of spots and nodules, with characteristics of asymmetry and irregularity. Malignant melanoma is the most serious type of skin cancer due to its high potential for metastasis, which highlights the need to detect the cancer at an early stage and thus enable a good prognosis for the disease. In addition, preventive measures that are accessible to the population are essential to avoid an increase in cases. Therefore, this study aims to identify the epidemiological profile of melanoma in Maranhão and compare its incidence in relation to the Northeast. **METHODS:** This was a descriptive, comparative and analytical study between 2018 and 2022, based on data provided by the Cancer Information System (SISCAN). The parameters used were age group, gender, year of diagnosis and treatment, and therapeutic modality used. **RESULTS:** Between 2018 and 2022, the Northeast quantified 3,364 diagnoses of malignant melanoma 152 of which were in Maranhão, which represents approximately 4.5% of cases. In terms of age group, 60 to 64 year olds were the most affected in the state, while the prevalence in the region was 80 years and over. Males predominated in both analyses, accounting for 55.2% of cases in Maranhão and 50.3% in the Northeast. The year with the most diagnoses in the state and the region was 2022, which was also the year with the most treatments in Maranhão (35). However, 2019 was the year with the most treatment in the Northeast (418). Finally, with regard to the therapeutic modality, chemotherapy was the method most used in the state, in 62 cases. Surgery, on the other hand, was the intervention most adopted at regional level, in 822 cases. As for the lack of treatment information in Maranhão and the Northeast, the rate was 26.3% and 47.3%, respectively. **CONCLUSION:** Between 2018 and 2022, Maranhão was one of the states with the lowest rate of diagnosis of melanoma, with the male population being the most affected. In addition, the data shows that the prevalent age group for this cancer is younger in Maranhão when compared to the Northeast. Furthermore, chemotherapy is the most common treatment for patients with malignant melanoma in the state, while surgery was the most common technique in the region.

49. **EPIDEMIOLOGICAL AND VACCINATION ANALYSIS OF PERTUSSIS IN CHILDREN IN BRAZIL FROM 2011 TO 2022**

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**INTRODUCTION:** Pertussis refers to an acute infectious disease caused by the *Bordetella pertussis* bacillus, with high transmission potential, worldwide significance, and being a major cause of infant morbidity and mortality, characterized by respiratory symptoms that can progress to paroxysms of dry cough and wheezing. As prophylaxis, the Ministry of Health establishes vaccination for children at the second, fourth, and sixth months of life. Thus, an epidemiological analysis is necessary based on recent data indicating a decrease in childhood vaccination in Brazil. **METHODS:** This is an epidemiological and descriptive study of pertussis cases in pediatrics in Brazil between 2011 and 2022, and childhood pertussis immunizations between 2011 and 2022 in Brazil, extracted from DATASUS, from the Ministry of Health, to evaluate the correlation between the data. **RESULTS:** There were a total of 30,037 cases of pertussis in patients aged 0 to 19 years in Brazil between 2011 and 2022, with the highest number of occurrences in 2014 (7,638). The most affected population was children under one year old, representing 65.74% (N= 19,746) of the number of cases. In addition, regarding the quantity of immunizations in the Brazilian infant population between 2011 and 2022, 548,529 doses of the Acellular Pertussis vaccine (DTPa) were administered, with the highest number of doses in 2012 (117,109) and the lowest in 2022 (9,509). The population that received the vaccine the most were children under one year old, totaling 52.93% (N= 290,353). A significant reduction of 91.88% in the number of doses administered was observed comparing 2012 to 2022. **CONCLUSION:** The epidemiological scenario points to a decrease in the number of pertussis cases per year, while also revealing a sharp decrease in vaccinated children against the disease. Concurrently, there is an increase in the spread of unsubstantiated speeches and campaigns promoting vaccine hesitancy, generating a continuous trend where future statistics continue to reveal a decrease in the number of vaccinated children, allowing diseases like pertussis to increase in incidence and return to prominence. Furthermore, it is evident that the population under one year old is both the most affected and the most vaccinated. From this, the need for immunization policies to prevent Brazil from suffering from an increase in these cases in the future is highlighted.

50. **ANALYSIS BY AGE GROUP OF COLORECTAL CANCER DIAGNOSES IN BRAZIL FROM 2012 TO 2022**

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**INTRODUCTION:** Colorectal cancer is one of the most common neoplasms in Brazil. It affects portions of the colon up to the rectum and has no symptoms in the early stages. Its prevalence is mostly in the 50 and over age group. However, recent research in developed and developing countries has reported an increase in cases in adults under the age of 50. Therefore, this study aimed to describe the prevalence of colorectal cancer by age group in Brazil from 2013 to 2022. **METHODS:** This was a descriptive, retrospective and quantitative study. Secondary data was collected on the number of colorectal cancer diagnoses, by age group, in Brazil from 2013 to 2022, through the Cancer Information System (SISCAN), on the platform of the Department of Informatics of the Unified Health System (DATASUS), with the data tabulated by the TABNET application. **RESULTS:** In 2013, there were 13,953 cases of colorectal cancer in Brazil, of which 2,801 were in the 30-49 age group and 7,613 in people aged 50-69. In 2018, the total number of registrations was 23,116 (na increase of 65.6%), of which 4,042 were people aged 30 to 49 - an increase of 44.3% compared to 2013 - and 11,757 diagnoses in the 50 to 69 age group. In 2022, the total number of cases amounted to 35,361 (52.9% more than in 2018), of which 5,625 were in the 30 to 49 age group -an increase of 39%- and 19,269 represented people aged between 50 and 69. In addition, colorectal cancer cases among adolescents and young adults (10 to 29 years old) rose from 237 cases in 2013 to 1,245 diagnoses in 2022. **CONCLUSION:** Although colorectal cancer is still more prevalent in people over the age of 50, an increasing number of diagnoses can be seen in all age groups over the last 10 years. Thus, the increase in incidence among adults under the age of 50 is a wake-up call for investigation into the possible causes influencing the early development of colorectal cancer, with a view to understanding these reasons and generating health promotion strategies for all age groups.

**51. PROGNOSTIC ANALYSIS OF PATIENTS WITH PANCREATIC ADENOCARCINOMA: A LITERATURE REVIEW**

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**INTRODUCTION:** Pancreatic adenocarcinoma (PAD) holds the worst prognosis among common solid malignancies, with a 5-year overall survival of only approximately 10%. Despite its high prevalence, early diagnosis remains challenging, often resulting in advanced-stage diagnoses and limiting curative treatment options. The objective is to emphasize the importance of conducting a literature review to assess prognostic factors, aiming to enhance perspectives and the quality of life for affected patients. **METHODS:** This literature review on the prognosis of patients diagnosed with PAD was constructed from publications found in the Pubmed, SciELO, and BVS databases. Scientific productions were selected using the descriptor "Prognosis of pancreatic adenocarcinoma." Eight articles in Portuguese and English, published between 2018 and 2023, were chosen. **RESULTS:** Selected articles indicate that treatment and prognosis are guided by staging. It was observed that the presence of nodal or distant metastases, poorly differentiated tumors, and patient characteristics such as advanced age and male gender are associated with an unfavorable prognosis and increased morbidity and mortality in PAD cases. Additionally, patients with elevated preoperative levels of CA19-9, a high modified Glasgow prognostic score, and positive peritoneal cytology were more likely to experience early postoperative recurrence, resulting in a reserved prognosis. While surgical resection remains the only potentially curative approach for PAD, the use of perioperative adjuvant therapy and neoadjuvant chemotherapy, particularly gemcitabine-based, gradually improves outcomes. Furthermore, the impact of early detection on outcomes is highlighted, as patients with PAD smaller than 1 cm, diagnosed through endoscopic ultrasound, had higher 5-year survival rates. **CONCLUSION:** Despite significant advances in understanding recurrent and complicating factors of PAD, the disease's prognosis remains challenging, partly due to late detection and therapeutic limitations in advanced cases. This underscores the need for studies establishing earlier diagnostic strategies, enabling disease control, either curatively or by alleviating patient symptoms in palliative care.

**52. REGIONAL ANALYSIS OF HOSPITAL ADMISSIONS FOR CROHN'S DISEASE AND ULCERATIVE COLITIS IN BRAZIL (2013-2023)**

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**INTRODUCTION:** Inflammatory Bowel Diseases (IBD) have exhibited a significant incidence in recent years, potentially rising to the status of a global epidemic. IBD is recognized as a chronic inflammation affecting the digestive tract, with the small and large intestines being the primary sites of involvement. The predominant pathologies encompass Crohn's Disease (CD) and Ulcerative Colitis (UC), which manifest in genetically predisposed individuals. These conditions manifest with a variable clinical spectrum, encompassing manifestations from intestinal symptoms to extraintestinal symptoms such as abdominal pain, recurrent diarrhea, hemorrhagic evolution, anemia, and nutritional deficiencies. Therefore, the study aimed to analyze the incidence of hospital admissions for IBD across different regions of Brazil from 2013 to 2023. **METHODS:** Data were extracted from the Hospital Information System of the Unified Health System (DATASUS), focusing on the Hospital Morbidity of SUS dataset, specifically targeting Chapter XI - Diseases of the Digestive System, and the morbidity list related to CD and UC. The assessment period spanned from January 2013 to August 2023. Regions were categorized according to Brazil's official division into North, Northeast, Southeast, South, and Midwest. For each region, the Absolute Difference in Admissions ( $\Delta N$ ) between 2023 and 2013, as well as the Average Annual Growth Rate (AAGR), were calculated using the formula for obtaining the geometric mean of the annual growth rate over the ten analyzed years. Subsequently, data tabulation and descriptive analysis were conducted using the Microsoft Office Excel program. **RESULTS:** The regions that exhibited reductions in both  $\Delta N$  and AAGR were the North ( $\Delta N$ : 128/AAGR: 8.83%), South ( $\Delta N$ : 130/AAGR: 2.61%), and Midwest ( $\Delta N$ : 23/AAGR: 1.11%). Conversely, those demonstrating an increase in admissions were the Northeast ( $\Delta N$ : 197/AAGR: 1.66%) and Southeast ( $\Delta N$ : 286/AAGR: 1.31%) regions. In comparison across all regions, there was an increase of 202 admissions, equating to an average annual growth rate of 0.49% over ten years. **CONCLUSION:** The results reveal significant variations in the trends of hospital admissions for CD and UC throughout the analyzed period. This regionalized analysis provides valuable insights for healthcare policy management and resource planning for the early diagnosis and treatment of these conditions in Brazil.

53. **OROLINGUAL ANGIOEDEMA AFTER ALTEPLASE INFUSION IN ISCHEMIC STROKE**

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**INTRODUCTION:** Ischemic stroke (IS) is often treated with the administration of recombinant tissue plasminogen activator (rtPA), such as Alteplase, aiming to restore cerebral blood flow. However, orolingual angioedema, a potentially severe complication associated with rtPA therapy, although underestimated, is characterized by a sudden and severe edema of the soft tissues of the oral cavity and oropharynx, which can lead to airway obstruction. This review aims to examine orolingual angioedema following the use of Alteplase in the management of IS, covering its clinical manifestations, predisposing factors, and management strategies. **METHODS:** A literature review was conducted in the PubMed database using the descriptors "Angioedema" and "Alteplase" linked by the boolean operator AND. Initially 47 articles were found. Filters were applied to select only articles published in the last 5 years, with full text available for free and written exclusively in English. After applying the filters, 14 articles remained that were selected for full reading and subsequent analysis. Of these 14 articles, 3 were excluded for not being directly related to the theme of this review and 1 for being partially written in Japanese. In the end, 10 articles were included in this review. **RESULTS:** Studies show that orolingual angioedema after thrombolysis with alteplase in ischemic stroke occurs in 1.3-5% of patients. Risk factors include previous use of ACEI, insular cortex infarction, and female sex. It manifests ipsilaterally to the lesion, between 30 minutes and 4 hours after the start of infusion. Its pathophysiology involves bradykinin accumulation due to the action of alteplase. The recommended management is to discontinue the fibrinolytic and administer corticosteroids, antihistamines, and epinephrine, with reports of use of icatibant and C1 inhibitors. With proper treatment and monitoring, most cases show complete resolution. **CONCLUSION:** Orolingual angioedema is a rare but potentially severe complication of rtPA administration for the treatment of IS. It is important that physicians be aware of this complication and know how to recognize and treat it properly. Further research is needed to better understand the underlying mechanism of angioedema after rtPA administration and to develop effective preventive strategies.

54. **LAPAROSCOPIC VERSUS OPEN APPENDECTOMY: A COMPARATIVE ANALYSIS**

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**INTRODUCTION:** Acute appendicitis is an inflammatory abdominal disease. It is the most common emergency with 17 patients/1,000 inhabitants, affecting mainly young people. Characterized by inflammation and infection of the vermiform appendix, acute appendicitis requires surgical intervention in its treatment, with appendectomy being the gold standard for treatment, through the laparotomic or laparoscopic approach. The laparoscopic technique has been shown to be superior, associated with shorter hospital stays, better aesthetic results and a reduction in the number of surgical wound infections when compared to the laparotomic technique. However, this route depends on an adequate structure and trained surgeons, making this technique more expensive. The aim of this study was to carry out a comparative study of the techniques used in the five regions of Brazil, in order to improve knowledge about the health services available in the country, comparing the number of laparoscopic and laparotomic surgeries performed. **METHODS:** Cross-sectional analytical study comparing the number of conventional and laparoscopic appendectomies performed in the five regions of the country between 2018 and 2022, with data obtained from **DATASUS** and processed in the Microsoft Excel® program for descriptive statistical analysis. **RESULTS:** Between 2018 and 2022, a total of 580,675 appendectomies were performed in Brazil. Of these, 536,792 were performed by laparotomy, representing approximately 92.5% of the total. On the other hand, only 43,883 procedures were carried out using the laparoscopic technique, corresponding to around 7.5% of all appendectomies performed. The number of laparoscopic appendectomies by region was as follows: a total of 18,332 procedures in the South, 17,518 in the Southeast, 2,652 in the Midwest, 5,192 in the Northeast and 189 in the North. **CONCLUSION:** The comparative analysis revealed that the conventional route accounts for over 90% of the number of procedures carried out. The South concentrates the largest number of video surgeries, while the North concentrates the smallest proportion. Thus, corroborating findings in the literature, it was found that the laparoscopic approach is still the least used due to its high cost.

55. **CLINICAL-EPIDEMIOLOGICAL ASPECTS OS TUBERCULOSIS CASES IN MARANHÃO FROM 2013 TO 2023**

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**INTRODUCTION:** Tuberculosis is a chronic infectious disease caused by *Mycobacterium tuberculosis* and spread through the air. The infection transmitted through aerosol droplets from bacilliferous patients can remain in a state of latency, occurring most of the time, or develop pulmonary and, less frequently, extrapulmonary manifestations. Therefore, the objective of the study is to characterize the clinical-epidemiological profile of tuberculosis in Maranhão over 10 years. **METHODS:** This is a cross-sectional and retrospective study of confirmed cases of Tuberculosis between the years 2013 and 2023 in the state of Maranhão. Data from the SUS Information Technology Department (DATASUS) were used, with analysis of the variables: age group, sex, race and clinical form. **RESULTS:** Between the years 2013 and 2023, the state of Maranhão recorded a total of 26,441 confirmed cases of tuberculosis, with 2022 being the year with the highest number of cases (n=3,222). In relation to age group, the most affected was 20 to 39 years old 42.8% (n=11,321), followed by 40-59 years old 31% (n=8,079), and the least affected was in children under 1 year old 0.04% (n=11). Regarding race, brown people represented 71.6% (18,943), while in terms of gender, men represented the majority of cases with 66% (n=17,530). The most common clinical form diagnosed was Pulmonary, recording 90% (n= 23,818) of all cases. **CONCLUSION:** Through epidemiological data taken from the DATASUS platform, it was possible to observe that the economically active population is the most affected. In this sense, it is concluded that Tuberculosis is a serious public health problem, as well as a constant challenge to be eradicated in the state of Maranhão.

56. **CLINICAL ASPECTS AND COMPLICATIONS OF HYDATIDIFORM MOLE: A LITERATURE REVIEW**

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**INTRODUCTION:** Hydatidiform mole (HM) is part of a group of diseases that develop from abnormal proliferation of the trophoblast and are classified as gestational trophoblastic disease (GTD). The two distinct types of HM, complete mole and partial mole, have different karyotypes, macroscopic and microscopic histopathology, clinical presentations, and prognoses. The aim of this study is to describe the clinical presentation and complications of HM. **METHODS:** This is an integrative literature review on HM, conducted through scientific articles from Scielo, Pubmed, BVS, and LILACS databases, in English, Spanish, and French languages from 2020 to 2023. The descriptors "molar pregnancy", "hydatidiform mole", "complications" were used. **RESULTS:** GTD refers to a group of tumors characterized by abnormal trophoblastic proliferation. This pathology has a frequency of 1-3.72 cases per 1000 pregnancies, with complete mole being the most prevalent type (65.2-66.6%). Risk factors include a history of molar pregnancy, pregnancies at reproductive extremes, low parity, and a history of abortion. Diagnosis involves clinical data, beta-hCG levels, abdominal and transvaginal ultrasound evaluation, and histopathological study, with the latter being the gold standard examination. Regarding beta-hCG, which is produced in large quantities by the hyperplastic trophoblast, it often presents values above 100,000 mIU/L. Clinically, these patients present with vaginal bleeding, hyperemesis, uterine enlargement for gestational age, hyperthyroidism, hypertension, proteinuria, and early preeclampsia. On ultrasound, the complete mole is easily visualized, while the diagnosis of partial mole occurs later, as changes are only visible from the 12th week of gestation. Treatment involves uterine evacuation through uterine aspiration and hysterectomy if the patient has completed childbearing and is hemodynamically stable. Additionally, post-molar follow-up with serum beta-hCG measurement is essential to detect possible progression to gestational trophoblastic neoplasia. **CONCLUSION:** According to the literature analyzed, it is essential to detect anomalous pregnancies early and understand their evolution, as early diagnosis and treatment are crucial to avoid complications.



**57. GENERAL ASPECTS OF REFEEDING SYNDROME: A LITERATURE REVIEW**

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**INTRODUCTION:** Refeeding Syndrome (RS) is defined as a severe hydroelectrolytic complication, with the potential risk of death, that happens shortly after the reintroduction of a diet, whether through oral, enteral, or parenteral means. Various factors contribute to the occurrence of RS, classified as moderate, high, and very high risk. Hypophosphatemia is the most crucial alteration in RS, but individuals may also present other metabolic changes affecting various systems (cardiovascular, respiratory, hematological, muscular, and neurological). Getting worse, cardiac arrhythmia, the main cause of death, can occur. Therefore, the objective of this review is to describe the general aspects of refeeding syndrome. **METHODS:** This is a literature integrative review study, conducted through data extraction from the LILACS database, in Portuguese and English languages, between the years 2012 and 2021. For the selection of publications, the following descriptors were used: Refeeding Syndrome; Protein-Energy Malnutrition; Hypophosphatemia. **RESULTS:** Regarding the pathophysiology of this syndrome, we have main conditioning is prolonged starvation leading to the depletion of glycogen energy reserves. Proteins they become redirected for structural and enzymatic functions within cells, what conditions the consumption of fat stores as an energy source. The volume of muscle fibers, hepatic cells, and brain cells decreases due to energy deficiency, hypophosphatemia occurs, leading to leads to clinical manifestations such as coagulation disorders, neuromuscular dysfunction, as seizures, for the commitment of the ventilatory muscles, mental confusion, and coma induced by neurological alterations. Adds up to the exposed, the changes metabolic, hypomagnesemia, hypokalemia, hyperglycemia, thiamine deficiency, water retention, vitamin deficiencies, and edema. **CONCLUSION:** RS is a condition that requires vigilance, since, they exist failures in early identification of the patient's nutritional status since there are often shortcomings. This is directly linked to unintentional weight loss, as well as to an increased risk of morbidity and mortality. Addressing the general aspects of RS proves to be important in professional conduct, given in view of impact on the prognosis of the hospitalized patient.

**58. ASPECTS RELATED TO THE PROGNOSIS OF PEDIATRIC PATIENTS WITH BILIARY ATRESIA**

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**INTRODUCTION:** Biliary atresia is a neonatal condition characterized by complete obstruction of intrahepatic and extrahepatic bile ducts, leading to chronic inflammation, fibrosis and cirrhosis in most patients. Clinical findings in a child with cholestasis typically include prolonged jaundice, scleral icterus, acholic stools, coluria and hepatomegaly, and early diagnosis is important to provide a better prognosis. Therefore, the aim of this study is to analyze the main factors related to a better prognosis in pediatric patients with biliary atresia. **METHODS:** A literature review was conducted, selecting articles published in the PubMed database from August 2018 to August 2023. Studies within the proposed period, available in English, and provided in full text were included. Duplicate articles, case reports, theses, dissertations, reviews and preclinical studies were excluded. **RESULTS:** After analysis, 2 articles were selected. It was identified that prognostic factors positively influenced jaundice treatment after portoenterostomy and long-term survival, including gestational age at term, normal delivery type, age at admission, age at diagnosis, and age at Kasai procedure. Initial prothrombin time (INR) was considered an independent prognostic factor for native liver survival in non-transplanted biliary atresia patients, as increased INR raised the risk of mortality. **CONCLUSION:** The results were promising in identifying factors for better prognosis, positively influencing jaundice treatment and long-term survival. On the other hand, the only predictor of surgical success was age, highlighting the importance of early diagnosis and timely surgical intervention in establishing a new biliary drainage system for patients with biliary atresia.

**59. ONCOLOGICAL CARE IN MARANHÃO: SURGICAL ADMISSIONS FROM 2017 TO 2022**

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**INTRODUCTION:** Among existing diseases, cancer is one of the illnesses with the greatest capacity for morbidity and mortality as it can cause various morphological, functional and metabolic changes, which compromises quality of life. According to the World Health Organization (WHO), around 80% of cancer patients require some surgical procedure. However, with the start of the spread of the SARS-CoV-2 virus, health services became overwhelmed, which may have impacted the outcome of treatment. Therefore, there is a need to determine whether there was any harm in execution of oncological surgeries during the COVID-19 pandemic in Maranhão. **METHODS:** Descriptive study on the number of hospitalizations related to surgical procedures in oncology in Maranhão, comparing the period from 2017 to 2019 with that of 2020 to 2022. Secondary data from the Hospital Information System were examined and the variables chosen were: oncology surgeries, hospitalizations, federative units and year/month of care. **RESULTS:** Maranhão recorded 21,125 hospitalizations for oncological surgeries between 2017 and 2022. In 2017, 2,867 oncological procedures occurred, with an upward trend until 2019, an average of 10.9% per year. In 2020, there was a drop of approximately 16% compared to the previous year. However, in 2021, there was an increase of around 35.5% compared to 2020, which recorded only 2970 procedures compared to 4024 the following year. The growth in the number of oncological procedures continued in 2022, maintaining the same growth trend as in the years before the pandemic. **CONCLUSION:** Therefore, it was found that, during the COVID-19 pandemic, there was a decrease in the number of hospitalizations for oncological surgeries in the first year. However, despite the Brazilian health system being oversaturated during the pandemic period, the state of Maranhão managed to reorganize oncological care in a timely manner, allowing the treatment of these patients to be carried out. Despite this, further studies are needed to assess the impact of the initial reduction in this treatment on the quality of life of affected patients.

**60. PRENATAL CARE AND ITS IMPACT ON NEONATAL INDICATORS IN MARANHÃO (2017-2021)**

Gildean Pereira Costa<sup>1</sup>; Miriam Santos Nunes<sup>1</sup>; João Pedro Lima Dos Santos<sup>1</sup>; Débora Cardoso De Oliveira<sup>1</sup>; João Pedro Oliveira Da Silva<sup>1</sup>

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**INTRODUCTION:** Prenatal care plays a crucial role in promoting maternal and neonatal health, allowing for the early detection of problems and enabling timely interventions to ensure a healthy pregnancy. However, the quality of this care remains a challenge, with significant regional disparities. The aim of this study is to describe the relationships between the number of prenatal consultations and neonatal indicators in the state of Maranhão. **METHODS:** This is a descriptive, cross-sectional, quantitative study, using data obtained from the Department of Health Information of the Unified Health System (DATASUS) for the period from 2017 to 2021 in the state of Maranhão. Data on live births were examined, focusing on the number of prenatal consultations, Apgar score at the 5th minute, birth weight, and duration of gestation, excluding records with incomplete or missing data. **RESULTS:** An increase in the number of prenatal consultations from <4 consultations to  $\geq 7$  consultations is associated with a reduction in the frequency of live births with Apgar at the 5th minute  $\leq 7$  (from 4.02% to 2.06%), low birth weight (<2500g) (from 11.96% to 5.46%), and prematurity (from 18.94% to 7.54%). Out of 13,498 pregnancies with babies with Apgar  $\leq 7$ , 21.77% had <4 prenatal consultations, while 39.98% received  $\geq 7$  consultations. Conversely, pregnancies with babies with Apgar >7 (506,195) had more consultations, with only 13.88% having <4 consultations and 50.59% having  $\geq 7$  consultations. Out of 476,620 newborns with normal weight (2500 to 3999g), 14.28% had <4 prenatal consultations and 50.20% had  $\geq 7$  consultations. On the other hand, out of 6,729 live births with very low birth weight (<1500g), 35.27% received <4 consultations, while only 22.05% had  $\geq 7$  consultations. Additionally, among the 7,884 newborns born at <32 weeks, 39.29% received <4 consultations, and only 17.30% had  $\geq 7$  consultations. In comparison, out of 454,355 term babies (37 to 41 weeks), 12.48% received <4 consultations, while 52.38% had  $\geq 7$  consultations. **CONCLUSION:** There was a significant association between a lower number of prenatal consultations (<4) and a higher incidence of premature births, as well as babies with low birth weight and lower Apgar scores at the 5th minute. These indicators were mitigated in pregnant women who received adequate prenatal care. These findings emphasize the importance of adequate prenatal care in reducing complications during pregnancy and ensuring good neonatal health.

61. **ASSOCIATION BETWEEN ADHD, HYPERSEXUALITY AND PARAPHILIAS: A REVIEW**

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**INTRODUCTION:** Attention deficit hyperactivity disorder (ADHD) is the most common neuropsychiatric disorder in childhood and adolescence, often persisting into adulthood, and is characterized by inattention, hyperactivity and impulsivity, including lack of self-control, impacting psychological, social and behavioral functioning. In this way, the greater the impulsivity, the less self-control, favoring undesirable results due to the behavior, such as financial losses or physical injuries, whether due to alcoholism, smoking, substance abuse, traffic violations or risky sexual behavior. Therefore, patients with ADHD are more susceptible to hypersexuality, sexual compulsion and paraphilias. **METHODS:** This is a literature review, in which we searched the Google Scholar and PubMed portals, using as eligibility criteria original articles published from 2019 onwards, without language restriction, and that specifically presented the theme. The descriptors used were: "ADHD"; "hypersexuality"; "paraphilias". **RESULTS:** It is clear that the hyperactivity and impulsivity of ADHD, especially the inattentive subtype, are associated with hypersexuality, currently called compulsive sexual behavior disorder, which is characterized by a persistent pattern of failure to control impulses or intense sexual urges, resulting in repetitive sexual behavior that causes harm or distress. As such, some ADHD patients have increased sexual desire, greater frequency and less sexual satisfaction than the general population. Because of this, some studies claim that there is also a relationship between ADHD and a higher prevalence of paraphilias, which are recurrent sexually arousing fantasies, urges, or sexual behaviors usually involving non-human objects, suffering or humiliation of oneself or one's partner, or of children or other people without consent. Paraphilia is differentiated from paraphilic disorder in that it does not threaten the well-being of other individuals. So, it can be seen that paraphilic symptoms are more common in adults, in the third decade of life, so it is more related to ADHD that persists into adulthood. **CONCLUSION:** Therefore, although there are studies associating ADHD, hypersexuality and paraphilias, there is still a need for more studies correlating the themes.

62. **SERVICES TO THE VARICOSE VEINS OF THE LOWER EXTREMITIES IN MARANHÃO FROM 2018 TO 2022**

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**INTRODUCTION:** Varicose veins are dilated and tortuous veins that develop due to the malfunction of their valves, which causes the blood to return and stagnate inside the veins, causing dilation and reflux. Varicose veins are a severe consequence of varicose veins, which can result in prolonged hospital stay, time off work and surgical intervention. Therefore, the clinical and surgical importance of this venous disorder lies in the impact it causes on the physiological health, aesthetics and social life of patients, which can progress to serious stages with systemic repercussions. **METHODS:** The study in question is an epidemiological analysis, whose general objective is to evaluate the profile of care for varicose veins of the lower limbs in Maranhão between the years 2018 and 2022. The sociodemographic characteristics of the patients treated were investigated, the information was collected at the Information Technology Department of the Unified Health System (DATASUS) and several variables were analyzed. **RESULTS:** There were 1,603 elective hospitalizations, with the municipality of Timbiras having the highest percentage of cases (45.3%), followed by São Luís (31.5%), Imperatriz (6%) and Caxias (5.5%). The year 2019 had the highest number of hospitalizations of the period, totaling 449 cases (28%). Analyzing the profile of elective hospitalizations, it is clear that: women are responsible for around 82% of the cases, 71,8% are mixed race and the most affected age group was 40 to 49 years old (30,7%). There were 803 emergency admissions, 57,7% of whom were female and 47,4% were mixed race. There were 26 deaths from the disease, 69,2% of which were female, with emphasis on the state capital, responsible for 30,7% of deaths. The cost of medical care for varicose veins of the lower limbs total R\$414,307.18 in Maranhão, with Timbiras responsible for 43,5% and São Luís, for 34,7%. **CONCLUSION:** Thus, the Maranhão epidemiological profile outlined revealed a higher incidence among female, mixed-race people, between 40 and 49 years old, which highlights the need for public health strategies aimed at this group, aiming to guarantee prevention and combat the increase in rates of varicose veins in the lower limbs in Maranhão, based on the reduction in costs with medical services in the municipalities of São Luís and Timbiras, where the highest rates in the state were concentrated.

**63. ACADEMIC ASSIGNMENTS AND THE MENTAL HEALTH OF MEDICAL STUDENTS: A NARRATIVE REVIEW**

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**INTRODUCTION:** Extensive study hours, rigid curriculum and competitiveness are realities in the lives of medical students. Due to a multifactorial process, medical students have shown higher rates of sleep deprivation, symptoms of anxiety and depression, and suicidal ideation than the general population. In addition, these students often have difficulty recognizing their own mental disorder. Therefore, this study aims to address the main impacts of academic assignments on the mental health of medical students. **METHODS:** This is a literature narrative review based in the SciELO and Pubmed databases. Articles were selected with the descriptors "medical students", "mental health" and their equivalents in Portuguese, written in Portuguese and/or English, published between 2019 and 2022 and that answered the theme question of this work. At the end of the research, 8 articles were selected, from which relevant information was taken for the preparation of this review. **RESULTS:** The analysis of the articles corroborated that the medical school requires an intense workload and dedication of the students, which, added to the pressure imposed by the process of becoming a doctor, can trigger symptoms of anxiety and depressive disorders. However, the impact on the mental health of this group is a multifactorial issue that includes sleep deprivation and interpersonal and socioeconomic issues, and was also aggravated during the COVID-19 pandemic. In addition, it was noted, in 3 studies, that the female sex is the most affected by psycho-emotional disorders and the most interested gender in research related to this subject. In addition, 4 articles report harmful actions practiced by university students that aim to mitigate these conflicts, such as drug and alcohol consumption noted as the most prevalent actions. **CONCLUSION:** Medical education, through a multifactorial process, causes a psychological disorder in students, accentuated in females, which extends from minor effects, such as sleep disorders, to the establishment of psychiatric diseases. The socio-economic profile remains a modulator of perception and action in relation to mental illness. Thus, there is a need for more organized care networks accessible to listening, in order to reduce the harm caused by academic life during medical education.

**64. INCREASE IN CASES OF HERPES ZOSTER DURING THE COVID-19 PERIOD: A LITERATURE REVIEW**

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**INTRODUCTION:** Herpes Zoster (HZ) is a dermatological disease, caused by the Virus Varicella-Zoster (VZV), the same that cause varicella, aka chickenpox. After transmitting chickenpox, this virus still inactive in the body, may have its activity resumed as a adult or people who have low body defenses, such as those with chronic illnesses, such as hypertension, diabetes, AIDS or cancer. Thus, giving rise to HZ. After the start of the COVID-19 pandemic, studies reveal that SARS-Co V-2 infection often leads to immunosuppression of those infected. Given this context, the objective of all this was to verify the increase in the number of HZ cases during the COVID-19 period and establish the relationship between SARS-Co V-2 infection and HZ. **METHODS:** This is an intriguing review of the literature based on data collected in platform Google academic, between 2020 and 2023. The descriptors used were "COVID-19" and "Herpes zoster" or "Varicella zoster" and "Aumento" and "Pandemia". Articles that were not in Portuguese or English, duplicate articles, incomplete articles and articles that did not establish a relationship between HZ and COVID-19 were excluded. **RESULT:** 34 articles were identified, 10 of which met the established inclusion criteria. Of the selected articles, five highlight a low immune system as one of the main factors in the appearance of HZ, one of the studies mentions the disease affecting all age groups and the other four works address other aspects also related to the topic, such as, emotional stress, COVID-19 vaccine, and lack of exposure to chickenpox. Furthermore, a study cites the frequency of clinical cases of HZ in large Brazilian regions, comparing the period before the COVID-19 pandemic. And it was observed that in the first moment the proportion of cases was 30.2 for 1 million inhabitants, while in the second moment it was 40.9 cases for the same population, demonstrating the growth of this situation during the COVID-19 period. **CONCLUSION:** The correlation between the increase in HZ cases and COVID-19 is evident. Therefore, a more in-depth study of the immunological mechanisms that may be linked to the increase in HZ cases during the pandemic period is necessary to better understand these clinical results.

65. **INCREASE IN THE NUMBER OF INFECTIOUS MENINGITIS CASES IN THE POST-PANDEMIC PERIOD**

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**INTRODUCTION:** Meningitis is the inflammation of the membranes that cover the brain and spinal cord, called meninges. It is usually caused by bacteria and viruses. Taking into account the prevalence and severity of this problem, as well as verifying the increase in the number of cases in the post-pandemic period, an analysis of the topic is necessary in order to understand which factors influenced this observation. **METHOD:** An epidemiological, descriptive and quantitative study was carried out, based on secondary data from the Department of Informatics of the Unified Health System (DATASUS). These data refer to the period between 2019 and 2023. The variables researched were: year of first symptoms, region of notification, age group, race, sex, etiology and criteria for confirming the diagnosis. **RESULTS:** During the period analyzed, a total of 47,276 confirmed cases were observed, the majority in the Southeast region (52.09%), which may be the result of environmental factors, such as large population concentrations and the circulation of people in closed environments, facilitating the spread of the disease. The year with the highest number of cases was 2019 (n=16,552), with the pandemic and protective measures there was a drop of 45% in 2020 and 41% in 2021. In 2022, there was a significant increase (n =12,494) when compared to the previous year. Individuals between 20 and 39 years old were most affected. This may be related to the fact that, during adulthood, there is a loss of immunity acquired through vaccination in childhood, making individuals in this age group more susceptible. Regarding sex and race, there was a predominance of men, self-declared white and mixed race. This finding can be explained by the greater exposure of males to activities that facilitate the transmission of infectious diseases. Regarding etiology, viral meningitis was predominant (43.89%), possibly due to rapid spread, and the most used confirmation criterion was the chemocytological examination. **CONCLUSION:** Infectious meningitis is an important public health problem, listed in the group of diseases whose notification is compulsory. Therefore, the present work found that there was an increase in cases in 2022, mainly in the age group of 20 to 39 years old, demonstrating the need for new studies to promote the elucidation of this increase. The hypothesis for this phenomenon is due to the loss of immunity and being the most exposed population.

66. **EVALUATION OF DEPRESSION IN PATIENTS AT A BASIC HEALTH UNIT IN SÃO LUÍS, MARANHÃO**

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**INTRODUCTION:** Depression is a chronic psychiatric illness that affects mood, sleep and appetite, differing from common sadness by persisting without improvement. With more than 300 million people affected globally, depression is a common condition among patients treated in Basic Health Units (UBS), especially as this is the first line of care accessible to the population. However, less than half of those affected receive help, as obstacles such as lack of resources and social stigma associated with mental disorders make this support unfeasible. Therefore, the objective of this research is to investigate the prevalence of depression among UBS patients, aiming to understand the extent of the problem and identify areas of intervention to improve mental health care. **METHODS:** This is an analytical and cross-sectional study carried out with 30 adult patients, of both sexes, treated from June to September 2023 at the Parque Vitória UBS, in São Luís-Maranhão. As a collection instrument, a socioeconomic questionnaire was used, in addition to the Beck Depression Inventory, whose cutoff point for interpretation was summarized as: score 0-13: absence, and between 14-63: presence of depression. The project was approved by the UniCeuma Ethics and Research Committee with an opinion substantiated by CEP N° 5,330,886. **RESULTS:** The research revealed that there is a significant probability of depression in the individuals evaluated, indicating a prevalence of 30%, of which 66.6% are female, which can be justified by the fact that women seek preventive medical assistance more than men.; 88.9% do not currently work, suggesting that feelings of sadness and despair caused by unemployment encourage the emergence of typical characteristics of depressive disorder. Furthermore, 44.4% of those interviewed live alone, which reflects directly on the relevance of the family support network for minimizing factors associated with the disorder, while those who share a house with family members seem to present fewer symptoms of depression. **CONCLUSION:** In this context, it is possible to state that factors such as gender, income and marital status can influence both beneficial and harmful behaviors for the mental health of individuals, in addition to reflecting the lack of demand for professional help and adherence to treatment, making it necessary to prepare UBS and train professionals to recognize and treat patients with depression.

67. **EVALUATION OF SUICIDE CASES IN MARABÁ AND IMPERATRIZ BEFORE AND DURING COVID-19**

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**INTRODUCTION:** Social distancing, economic uncertainty and concerns about health were factors that worsened mental health during the pandemic years. Thus, there was a significant increase in suicide cases during this period. Furthermore, the overload on the health system, due to the high number of cases and deaths from COVID-19, has made access to health professionals more difficult. Therefore, this summary aims to analyze the number of suicide cases in the cities of Marabá and Imperatriz by comparing the period 2018-2019 with the years 2020-2021. **METHODS:** This is a retrospective study, carried out using data available in DATASUS. Information was collected about notifications of deaths caused by intentional self-harm that occurred in the cities of Marabá (PA) and Imperatriz (MA) between 2018 and 2021. Such information served as analysis variables for the study in question. **RESULTS:** In the pre-pandemic years, there were 50 deaths in the two municipalities, 21 in Marabá and 29 in Imperatriz. In the pandemic years, there was a 64% increase in cases compared to the previous two years, with 82 deaths, 40 in Marabá and 42 in Imperatriz. It was noticed that, in both cities, suicide affected more men aged between 30 and 39 years, mixed race, single and with 8 to 11 years of education in the two periods analyzed. **CONCLUSION:** Although the profile of patients with death caused by self-harm remained the same before and during the pandemic, in 2020 and 2021, there was an increase in cases of suicide in females of all ages and in white races and black from both cities. There were no records of suicide among the yellow and indigenous races in any of the years analyzed. The period of social isolation could have major consequences for the mental health of Brazilians, especially in regions least supported by functioning psychology and psychiatry services, such as the North of the country. Added to this, psychophobia and the association of mental illness with asylum hospitalization mean that people do not assume they need help of shame and do not seek mental health services out of fear. Therefore, mental health policies must be intensified in poorer regions, especially in those where access to mental health services does not occur in its entirety, guiding the population and addressing the issue with its due importance.

68. **EVALUATION OF THE BALANCE OF ELDERLY PEOPLE PARTICIPATING IN AN EXTENSION PROJECT**

Míuria Joyce Pereira Raposo<sup>1</sup>; Poliana Sousa Raposo<sup>2</sup>; Anna Beatriz Costa Azevedo<sup>2</sup>; Gustavo Bender Hendges<sup>1</sup>; Antônia Márcia Dutra Rabelo<sup>1</sup>; Maria Clara Gadelha Lopes da Silva<sup>1</sup>; Luciana Oliveira dos Santos.<sup>1</sup>

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**INTRODUCTION:** Imbalance is defined as the sensitivity of decreased or postural inconstancy<sup>3</sup>. Thus, mobility depends on three systems: sensory (visual, vestibular and proprioception), Central Nervous System (CNS) and musculoskeletal<sup>4</sup>, as well as temporary factors such as acute illnesses and medication use. In addition, aging generates changes in the vestibular system, loss of muscle mass, reduction of reflexes and cerebellar function. Therefore, the elderly population suffers from loss of balance even in the absence of previous pathology<sup>3</sup>. Consequently, the aim of this study was to assess the balance of elderly people taking part in an extension project. **METHODS:** Before data collection, all individuals read and signed the informed consent form and the research was approved by the research ethics committee of the University of Tocantins State with CAAE: 63326022.7.0000.8023. An interview was carried out to verify the inclusion and exclusion criteria and the elderly people's interest in participating in the research. Next, the Minibest Test was performed, which assesses static and dynamic balance. The maximum test score is 28 points divided between 14 items that vary between 0 (unable to perform), 1 (performed with assistance) and 2 (performed alone). **RESULTS:** In the present study, 18 elderly volunteers were evaluated, 5 were male, the average age was 68.05±6.6 years. The average score of elderly individuals in the test was 22.05±3.7. For this age group, a value of 26 points would be expected. This shows that these individuals have a deficit in static and dynamic balance. The loss of balance in this population is due to the reduction in basal metabolism, comorbidities and lack of exercise<sup>2</sup>. Accordingly, in an evaluation, physically active elderly women showed more independence in carrying out activities of daily living (ADL) when compared to sedentary women<sup>1</sup>. In line with this finding, Vieira et. al. observed that physical exercise is relevant to reduce the risk of falls in the elderly<sup>5</sup>. **CONCLUSION:** The group of elderly people participating in the extension project in the assessment of balance using the Minibest Test scored 22.05. This result infers that individuals have a deficit in static and dynamic balance, since the expected value for this age group would be 26 points.

69. **ASSESSMENT OF THE RISK OF POOR EVOLUTION FOR DIABETIC FEET IN PATIENTS WITH TYPE 2 DIABETES MELLITUS**

Débora Gonçalves de Oliveira<sup>1</sup>, Larissa de Sousa Miranda<sup>1</sup>, Ana Clara Tavares Dantas Nogueira<sup>1</sup>, Ana Beatriz Paixão Rodrigues<sup>1</sup>, Luana Donato Primo Costa<sup>1</sup>, Aarão Filipe Ataídes Lima<sup>1</sup>, Sheila Elke Araújo Nunes<sup>1</sup>

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**INTRODUCTION:** Diabetic foot represents one of the most severe complications of Diabetes Mellitus (DM), with its progression to Diabetic Foot Ulcers (DFU) being associated with increased morbidity, mortality, and healthcare costs. Preventive actions are essential to mitigating adverse clinical outcomes. Therefore, this study aimed to screen for complications and risk factors associated with diabetic foot among patients attending a Primary Health Care Unit (PHCU) in Imperatriz, MA. **METHODS:** The study included individuals diagnosed with type 2 DM, aged 18 and above, who consented to sign the Informed Consent Form. Anamnesis and physical examination of the feet were conducted, comprising medical history assessment, neuropathy symptoms, capillary glycemia, dermatological evaluation, and sensitivity alterations assessment using the Semmes-Weinstein Monofilament 10g, pinprick, and 128 Hz tuning fork. The research was approved by the Brazil Platform, Hospital Carlos Macieira Research Ethics Committee, under opinion number 5,360,789 and CAAE: 55572722.8.0000.8907. **RESULTS:** The study group (33 individuals) primarily consisted of elderly women with other comorbidities and glycemic control issues (54.5%). Several conditions associated with increased risk of ulceration were identified: calluses (60.6%), xeroderma (39.4%), improper nail cutting (48.5%), lack of awareness and/or non-use of appropriate footwear (60.6%), absence of foot assessments (84.8%), and absence of foot care instructions from healthcare professionals (87.8%). Sensitivity alterations were absent in 66.6% of participants, while 3%, 18.1%, and 18.1% presented loss of protective, painful, and vibratory sensitivity, respectively. Neuropathic signs and symptoms in the Lower Limbs (LL) included recurrent neuropathic pain (54.5%), cramps (51.5%), paresthesia (30.3%), and hypoesthesia (12.1%). **CONCLUSION:** High percentages of dermatological manifestations, neuropathic signs, and symptoms in the LL associated with poor evolution to diabetic foot were observed, despite the preservation of vibratory, painful, and protective sensitivities in many individuals. Additionally, there was a clear lack of access to information regarding foot self-care and a reduced number of patients who had their feet previously assessed by a healthcare professional.

70. **SCIENTIFIC ADVANCEMENTS FOR THE REPOSITIONING OF PROPRANOLOL: A REVIEW**

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**INTRODUCTION:** The repositioning of a drug is relevant for reducing the high costs of the traditional process of developing new pharmaceuticals, as well as optimizing the average development time. Repurposing a low-cost, off-patent drug is ideal for ensuring greater patient accessibility. In this context, propranolol, initially prescribed for hypertension, irregular heart rate, essential tremor, and anxiety, has shown increasing evidence of its pharmacological properties for other diseases over the last decade. The objective of this work, therefore, is to gather updates on the repositioning of propranolol, through the evaluation of different types of clinical studies with this medication. **METHODS:** This is a systematic review, using the PubMed database. The descriptors "propranolol" and "clinical trials" were chosen and used, combining them with the Boolean operator "AND". Among the 713 studies found, 6 articles were selected for the composition of this work based on the following criteria: being a clinical study, addressing the theme; being in English; having been published between 2022 and 2023. **RESULTS:** Two studies addressed the use of propranolol in adult patients of both sexes for migraine prophylaxis, but they contribute little to better elucidate the mechanism of action of propranolol in this pathology, in order to establish an optimal therapeutic dose for patient management. A recent clinical study demonstrates the efficacy of propranolol use in cases of infantile hemangioma in a 5% topical gel, capable of reducing lesion discoloration after the proliferative phase. This efficacy may indicate promising prospects for propranolol studies for use in cases of infantile hemangioma, suggesting a positive repositioning of this drug for this context. Another field for propranolol repositioning was its use in patients with severe traumatic brain injury within the first 48 hours, although the authors emphasize that its use is very challenging in terms of treatment and prognosis. **CONCLUSION:** Further studies are needed to corroborate the elucidation of the mode of action of propranolol in migraine across different populations and age groups, as well as in infantile hemangioma, in order to establish more precise clinical management in these pathologies and contribute to the repurposing of this drug.

**71. ADVANCES AND LIMITATIONS IN MINIMALLY INVASIVE APPROACHES IN FETAL SURGERY**

Rebeca Leticia Moucherek do Nascimento Cutrim<sup>1</sup>, Victoria de Menezes Sá Lazera<sup>1</sup>, Maria Fernanda Sales Campos<sup>1</sup>, Isadora Cristine Ferreira Oliveira<sup>1</sup>, Andressa Silva de Carvalho Barreto<sup>1</sup>, Mariana Silva Regadas<sup>1</sup>, Rakell Almeida Soares<sup>1</sup>

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**INTRODUCTION:** Fetal medicine is characterized as the science that studies fetal development, arising from the need to intervene in lesions that may lead to progressive damage to the fetus in the intrauterine environment. Surgeries are thus performed during gestation to increase the chances of fetal survival and reduce developmental impairments. This study aims to analyze minimally invasive approaches involving fetal surgery and their impact on patient prognosis. **METHODOLOGY:** A bibliographic review was conducted using articles published between 2014 and 2022, indexed in SciELO, PubMed, and Google Scholar databases. Articles in the Portuguese language with keywords such as "fetal surgery," "myelomeningocele," and "fetal treatment" were included. **RESULTS:** The analysis reveals a lack of consensus on a term defining all fetal interventions, ranging from ultrasound-guided punctures to more complex open procedures (maternal laparotomy followed by hysterotomy and direct fetal exposure). Fetal interventions include placental vessel coagulation with laser, cardiac interventions, procedures for lower urinary obstruction, fetal tracheal occlusion with inflatable balloon, and myelomeningocele correction (MMC). Some procedures, like valvoplasties and ultrasound-guided cardiac septostomies, are still in the study phase but have raised high expectations. Fetal tracheal occlusion with an inflatable balloon in congenital diaphragmatic hernia (CDH) aims to assist fetal lung growth by preventing fluid leakage into the amniotic cavity. Fetal surgery has become the gold standard for MMC correction, either open or through fetoscopy. However, both techniques carry the risk of premature membrane rupture, leading to the exploration of endoscopic correction variations to reduce the risks of open surgery. **CONCLUSION:** Fetal surgeries are invasive procedures associated with maternal and fetal mortality risks. Nevertheless, they contribute to revolutionizing the natural history of various diseases, fostering fetal development, and preventing permanent damage.

**72. ADVANCES IN THE PREVENTION AND TREATMENT OF PRE-ECLAMPSIA IN PREGNANT WOMEN**

Gloria Maria Aguiar Brito Lima<sup>1</sup>, Alexandre Rodrigues Lobo Vidal<sup>1</sup>, Ianne Karine Lindoso de Souza<sup>1</sup>, Lara Emannuely Alves Ferreira<sup>1</sup>, Heloisa Helena de Sá Paiva<sup>1</sup>

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**INTRODUCTION:** Pre-eclampsia is a complex and potentially serious medical condition that affects pregnant women around the world, representing a significant challenge for contemporary obstetrics. In this literature summary, we explore recent advances in the understanding, prevention, and treatment of preeclampsia, a condition characterized by hypertension, proteinuria, and organ dysfunction, which can have serious consequences for the mother and fetus. Based on recent research and findings, we highlight innovative strategies that promise to improve the clinical management of this condition, reduce complications, and improve obstetric outcomes. This summary offers a comprehensive overview of current trends and future perspectives in the management of preeclampsia, providing important insights for clinical practice and maternal-fetal health. **METHODS:** This is a summary of literature, where databases such as PUBMED, SCIELO and GOOGLE ACADEMICO were used, using the keywords: pregnant woman, advances, prevention, treatment and pre-eclampsia. **RESULTS:** As a result of the research, it was proven that adequate prevention of pre-eclampsia (PE) is carried out through a good anamnesis and a well-performed physical examination, thus enabling the identification of risk factors that will guide proven methods for preventing this condition. Therefore, the use of acetylsalicylic acid (ASA) and calcium supplementation should be recommended if there is one high risk factor or two moderate risk factors present in the evaluation of these patients. Therefore, the appropriate treatment in the prior identification of pregnant women with PE would be referral to a specialized unit, blood pressure and laboratory monitoring associated with the use of antihypertensive drugs if necessary. The studies also showed that ratios between biomarkers such as sFlt-1/PlGF > 38 can be used to make decisions regarding clinical management. **CONCLUSION:** It is concluded that the use of protocols by health professionals is flawed and for this reason the institution of prevention and adequate and early treatment is lacking. Therefore, to optimize the care of these patients, it would be ideal to apply innovative methods such as the use of biomarkers to help with therapeutic decisions, the provision of guidelines in primary care, which must be collected and monitored, as well as referral to specialized care with the aim of reducing maternal-fetal mortality.



73. **THE NUTRITIONAL TRANSITION BETWEEN OBESITY AND MALNUTRITION**

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**INTRODUCTION:** Obesity and malnutrition are extremes that stigmatize and adversely affect an individual's health. In children, the presence of these conditions serves as a warning sign, as they are responsible for bringing consequences into adulthood and serve as good indicators of a population's health. Therefore, it is crucial to understand nutritional transition in the current context as a public health issue. **METHODS:** This is a literature review, in which scientific evidence was sought through articles in multiple databases such as Google Scholar, PubMed and Scientific Journals. The words Obesity, Malnutrition and Child Development were used as descriptors. The inclusion criteria were articles with up to 5 years of publication and exclusion criteria, those with a longer period of time and which didn't directly relate the study variables. Of the 10 articles, 9 demonstrated relevance to the topic. **RESULTS:** Nine studies were included, most of which focused on the comparison of obesity and malnutrition rates, and the effects of these changes over time. For years, child malnutrition prevailed, however, with modernization, there is a trend towards a decrease in these rates and an increase in the number of cases of overweight and obesity, due to a higher consumption of hypercaloric foods. The increase in these rates is associated with a higher prevalence of chronic diseases in childhood, such as diabetes and cardiovascular diseases. The articles also highlighted significant associated psychosocial changes, such as low self-esteem, relationship problems and social interaction, which affect the quality of child development. **CONCLUSION:** This review highlights the importance of addressing both childhood malnutrition and obesity with attention and appropriate actions. It is necessary to implement strategies that promote balanced nutrition and early nutrition education, aiming not only at physical health but also at the psychological well-being of children. Additionally, it is necessary to continue researching and monitoring these health issues to develop effective approaches in prevention and treatment, ensuring that future generations have a solid foundation for a healthy life, with a reduction in the number of cases of non-communicable diseases.

74. **ADVANCES IN THE TREATMENT OF ALZHEIMER'S DISEASE: A LITERATURE REVIEW**

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**INTRODUCTION:** Alzheimer's disease (AD) is a neurodegenerative disease and the most prevalent form of dementia among individuals over the age of 65 years caused by the progressive loss of mental functions from degeneration of brain tissue, involving b-amyloid plaques, neurofibrillary tangles cells, neuritic plaques and a significant increase in tau protein levels. Current treatment has not been successful in the slow and gradual progression of AD, which highlights the need for more scientific research to develop new therapies. **METHODOLOGY:** This is a systematic review, carried out in August 2023, selecting scientific articles published in the PubMed database, with the descriptors: "Neurodegenerative diseases", "Alzheimer's disease", "treatment" or "drug", combined using the Boolean operator AND, in accordance with the recommended PRISMA guidelines. 2231 articles were found, of which 15 met the selection criteria and, therefore, are included in this study. **RESULTS:** It is observed that the main advances in the literature include the use of anti-amyloid treatment, monoclonal antibodies and tyrosine kinase inhibitors. UB-311, an active immunotherapeutic anti-amyloid vaccine, demonstrated to be well tolerated and to have a durable response in a randomized phase 2a study, the results of which suggest the continued development of UB-311. Masitinib, a tyrosine kinase inhibitor that targets activated cells of the neuroimmune system (mast cells and microglia), in a phase 3 clinical study, proved to be potentially useful as an adjuvant to cholinesterase inhibitor and/or memantine in patients with mild dementia moderate associated with AD, where 4.5 mg/kg/day/12 weeks brought significant benefit in the 182 patients included in the study, with general improvement in cognition. More recently, a phase 3 study of 578 patients ages 65 to 85 showed that solanezumab, which targets monomeric amyloid in people with high levels of brain amyloid, did not slow cognitive decline compared with placebo over a period of 240 weeks in people with Alzheimer's disease. **CONCLUSION:** There is a growing increase in pharmacotherapeutic innovation for AD, where new therapeutic targets have been investigated. Also noteworthy is the repositioning of the drug masitinib, which can benefit people with mild to moderate AD. More studies need to be conducted to substantiate these data.

75. **PHRENIC NERVE-SPARING BLOCKS: A REVIEW OF LITERATURE**Raphael de Matos Lima<sup>1</sup>, Bruna de Oliveira Montes do Rosário<sup>1</sup><sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Shoulder surgeries are common procedures in which regional anesthesia plays an important role. In this scenario, interscalene block is the most used technique, but it causes paralysis of the phrenic nerve and diaphragm. Therefore, the use of this method in individuals with pulmonary dysfunction has disadvantages, so that strategies that spare this structure are important. Therefore, this work aims to point out these alternative techniques. **METHODS:** This is a narrative review of the literature on sparing phrenic nerve blocks. To this end, works were selected on the MEDLINE and PubMed research platforms, totaling 25 articles. Next, the production abstracts were analyzed, excluding those considered not relevant to the topic. Finally, a sample of 10 articles was obtained, which are the basis for this review. **RESULTS:** The first of these is the upper trunk block, which originates in the C5 and C6 region and corresponds to a good target, due to the distance of the phrenic nerve in relation to the brachial plexus at this level. Studies indicated that pain scores and opioid consumption in the first 24 hours were not significantly different. The same was observed in the blockage of the erector spinae plane, accessed in the transverse process below the erector spinae muscles. It is also worth mentioning the suprascapular and axillary techniques, which showed better results when used together. The first can be performed in the suprascapular fossa or in the root of the distal neck, while the second in the posterior region of the humerus. Its use resulted in better pain scores in the first 24 hours, but less immediate pain control and greater opioid consumption. Costoclavicular block was another technique treated, being performed at the junction of the three fascicles of the brachial plexus within the costoclavicular space, however studies have shown greater slowness in complete motor paralysis and immediate pain control compared to interscalene block. All strategies discussed showed better action on the phrenic nerve, which resulted in less diaphragmatic dysfunction. **CONCLUSION:** Upper trunk and erector spinae plane blocks had better results, while the suprascapular plus axillary technique had caveats. Finally, the costoclavicular block pointed to an unfavorable scenario when compared to the interscalene block.

76. **TRACHEA, BRONCHI, AND LUNG CANCER: EPIDEMIOLOGICAL PROFILE IN MARANHÃO FROM 2018 TO 2022**Francisca Erika Ferreira Sousa<sup>1</sup>; Bruno Luiz de Paula Pereira<sup>1</sup>; Beatriz Cardoso Ferreira<sup>1</sup>; Cácio Laylon Lira Silva<sup>1</sup>; Johnatha de Sousa Oliveira<sup>1</sup>; Wellyson da Cunha Araújo Firmo<sup>1</sup><sup>1</sup>Universidade Estadual da Região Tocantina do Maranhão

**INTRODUCTION:** Lung cancer ranks 5th among the most frequent cancers in Brazil, intricately linked to smoking—a preventable risk factor. However, the high rate of underdiagnosis and underreporting, attributed to limited access to diagnostic methods in the public healthcare system, often leads to an underestimation of these numbers. Thus, this study aims to identify the epidemiological characteristics of patients hospitalized for malignant neoplasms of the trachea, bronchi, and lungs in the state of Maranhão. **METHODS:** This is a cross-sectional and descriptive epidemiological study with a quantitative approach, covering the period from 2018 to 2022. Data were obtained from the Hospital Information System of the Unified Health System (SUS), provided by the Department of SUS Informatics. The variables analyzed included the number of hospitalizations, sex, age group, race or ethnicity, and number of deaths. **RESULTS:** Between the years analyzed, there were 2,250 hospitalizations for trachea, bronchi, and lung cancer. Of these, 2020 had the lowest rate (381), while 2021 had the highest (513). Regarding sex, there was a higher incidence among males (1,134), accounting for 50.4% of total hospitalizations, a value very close to females (49.6%), possibly related to increased smoking prevalence among this demographic. The age range analyzed included individuals from under 1 year to over 80 years old. The age group between 60 and 69 years recorded the highest numbers (678), consistent with literature indicating the peak incidence of lung cancer between 65 and 70 years old. Analysis by race or ethnicity showed a higher number of hospitalizations among individuals of mixed race (1,172). Additionally, 668 deaths were recorded during the study period, with higher rates among men (50.7%) aged 60 to 69 years (31.4%). **CONCLUSION:** Respiratory tract cancer exhibits significant hospitalization rates in Maranhão, primarily affecting men in their sixth and seventh decades of life. Thus, the study underscores the need for the development of strategies for early diagnosis and treatment in this population. Furthermore, due to its strong association with modifiable factors, a more assertive approach to preventive measures is imperative.

**77. CHARACTERIZATION OF THE MANAGEMENT OF POPULAR RESTAURANTS IN BRAZIL**

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**INTRODUCTION:** Popular Restaurants (PR) are one of the oldest public facilities aimed at guaranteeing the Human Right to Adequate Food (HRAF). Initially, promoted by Josué de Castro and, later, combined with a political agenda that prioritized issues related to food security, it generated a support and integration network in search of guaranteeing the HRAF. Therefore, this work aims to characterize the management of restaurants that make up the Popular Restaurants Program in the five macro-regions of Brazil from the perspective of public managers. **METHODS:** Application and analysis of a questionnaire adapted from the methodology of Oliveira et al. (2019), composed of questions related to the Popular Restaurants Program, through interviews with 15 program managers in seven municipalities in the five macro-regions of the country, with approval from the Research Ethics Committee under opinion no. 31197720.8.00005087. The analysis of numerical variables occurred using means and standard deviations and of categorical variables using raw and relative frequencies. The R Studio® program was used for the analyses. Pearson's Chi-square test was used to make comparisons between proportions. Statistical significance was set at 5%. **RESULTS:** A large portion of the restaurants were opened between 2002 and 2020, have outsourced public management, operate on weekdays, follow the recommendations by the rules for creating the program regarding location and physical structure. All public facilities evaluated required adaptations to the meal offering model during the COVID-19 pandemic. Low frequency of health promotion and food and nutritional education actions, articulation with other policies and social control within the scope of the program, were identified. **CONCLUSION:** The performance in the management of Popular Restaurants configures them as important instruments for guaranteeing Food and Nutritional Security and the Human Right to Adequate Food for the portion of the Brazilian population in situations of social and economic vulnerability, although there are still challenges to be faced.

**78. CHARACTERIZATION OF BURN HOSPITALIZATIONS IN MARANHÃO BETWEEN 2012 AND 2022**

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**INTRODUCTION:** Burns are traumatic injuries that can cause serious damage to the skin and underlying tissues, often requiring intensive hospital treatment. Maranhão faces specific challenges related to this type of injury due to socioeconomic, climatic, and cultural factors, representing a reality that demands attention and action. This study aims to highlight the characteristics of hospitalizations for burns and corruptions in Maranhão between 2012 and 2022. **METHODS:** This is an ecological study analyzing hospitalizations for burns and corruptions in Maranhão between the years 2012 and 2022. Data were collected through the SIH/SUS and tabulated using the TABWIN and TABNET systems. The variables observed were: hospitalizations by municipalities, type of care, age group, sex, race/ethnicity, length of hospital stay, deaths, mortality rate, total value, and average value. **RESULTS:** During the analyzed period, a total of 4,854 hospitalizations for burns and corruptions were observed in Maranhão. There was an average annual of 441.27 hospitalizations and a median of 444. The three municipalities with the highest occurrence were, respectively, Imperatriz (29%), São Luís (27%), and Presidente Dutra (4%). The majority of cases were treated as emergencies (97%). The most affected age group was 1 to 4 years old with approximately 27% of hospitalizations, while the least affected was the 70 years and older group, with nearly 3%. Males accounted for 65% of cases. Regarding race/ethnicity, 61% of the data were not tabulated, and 27% self-declared as mixed race. The average length of hospital stay in days was 6.1. The number of registered deaths was 99, reflecting a mortality rate of 2.03%. The total expenditure on hospitalization for burns was R\$5,879,107.87, resulting in an average cost of R\$1,211.18 per hospitalization. **CONCLUSION:** Through the analysis of the data, it is noted that the number of hospitalizations for burns and corruptions in Maranhão is relevant and has remained stable over the years. The hospitalization profile is characterized by emergency cases, in patients aged 1 to 4 years, male, self-declared mixed race, with an average length of stay of 6.1 days, a mortality rate of 2.03% (lower than the national rate of 4.57%), and an average cost per hospitalization of R\$1,211.18. Thus, the identification of this information is of utmost importance in the development of public health policies to minimize hospitalizations for burns.

**79. CHARACTERIZATION OF DEATHS FROM CHILD MALNUTRITION IN BRAZIL FROM 2012 TO 2021**

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**INTRODUCTION:** Child malnutrition is a pathological condition characterized by a lack of essential nutrients for the human body, with repercussions on physical, psychomotor and social development, often associated with the socioeconomic conditions of the population. In the last year, with Brazil's return to the UN Hunger Map (2022), the rates of infant deaths due to food deficits have caused a public health alert. In this context, the aim of this study is to analyze data on deaths from child malnutrition in Brazil between 2012 and 2021. **METHODOLOGY:** This is an ecological, quantitative, cross-sectional and time-series study. Data was collected from the Mortality Information System of the Unified Health System (SIM/DATASUS) from 2012 to 2021, using the ICD-10 category "child malnutrition", with the following parameters for analysis: number of deaths per household, age group, sex, color/race and place of death. **RESULTS:** In the period analyzed, there were 2,876 deaths due to malnutrition in children between 0 and 9 years of age, representing 5% of the total for the same cause in Brazil. The Northeast, the second most populous region, stands out among the rest of the country, with 39.2% - the states of Bahia (n=281) and Maranhão (n=237) having the highest rates - followed by the North with 31.2% the Southeast with 16.4%. There was a predominance of deaths among children under the age of 1 (62.7%), males (52%) compared to females, and people of brown color/race (48%). Regarding the place of occurrence, the highest number of deaths was in hospital units (77%), followed by the home (12.8%). Looking at the time period, there were slight fluctuations, with a downward trend in the numbers: in 2013 there were 396 deaths, the highest number since then. **CONCLUSION:** The regions with the lowest Human Development Indexes (HDI), the North and Northeast, have a higher number of deaths, especially among children between 0 and 1 year old, males, of brown color/race and in hospitals. Thus, the importance of this research is based on the urgent need to establish public health strategies and measures aimed at combating malnutrition and its impact on the child population, with a view to seeking a promising and healthier future for generations to come.

**80. CAUSES AND CONSEQUENCES OF A LATE DIAGNOSIS OF AUTISTIC SPECTRUM DISORDER**

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**INTRODUCTION:** The Autistic Spectrum Disorder (ASD) consists in several symptoms that interfere in the patient's neurologic development. It can be classified as level one, two or three, according to the neurological damage. Among those, the first level is usually the hardest to diagnose for its similarity to other conditions, being constantly underdiagnosed. The person who has ASD presents a triad of symptoms, like behavior issues, low social abilities and lack of communication skills. The early diagnostic leads to a more efficient treatment, which improves the chances of having a high quality of life. However, the late diagnostic makes getting good results harder, as the ASD interferes in cognition and can result in humor and anxiety disorders. In conclusion, due to the damages of this delay, a literature review is necessary to comprehend the causes and consequences of the ASD's late diagnostic. **METHOD:** A literature review was carried out in 11 articles of two databases: Scielo and Pubmed, between 2018 and 2023, and of the portals of the World Health Organization and the Brazilian Pediatric Society. The research's descriptive terms were autistic spectrum disorder, late diagnostic and autism. **RESULTS:** It was concluded that ASD's signs can be noticed since patient with two years old, but many circumstances can have influence over the ASD's recognition, as singularities of each person, lack of family awareness and difficulty of access to specialists. Therefore, the late diagnostic can deepen inappropriate behaviors and the development of social relations, which can cause consequences as anxiety and depression. However, even late, the right diagnostic and following therapy is important for self- knowledge and for a better quality of life. **CONCLUSION:** The late diagnostic can be related to the level of the family's knowledge and access to proper health care, and can cause a negative e impact to the patient's cognitive and psychological development.

**81. CERVICAL CYTOLOGY IN MARANHÃO: INCIDENCE OF HIGH-GRADE INTRAEPITHELIAL LESIONS 2020-2022**

Iasmim Bianca Melo Passos de Oliveira<sup>1</sup>, Déborah Lima Lopes Araújo, Denise Nascimento Carvalho<sup>1</sup>, GUYLHERME FERNANDO FERNANDES FERREIRA<sup>1</sup>

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**INTRODUCTION:** High-grade Squamous Intraepithelial Lesions (HSIL) are identified in the cervix region by cervical cytology examination, also called preventive examination. They are precursor lesions of invasive squamous cell carcinoma of the cervix, with unquestionable potential for evolution and invasion of the cervicovaginal tissue. According to the Brazilian Group of Gynecological Tumors (EVA), Maranhão has a prevalence of 21.71 cases of this cancer for every 100 thousand women and leads the cases in the Northeast region. **METHODS:** A descriptive time series study was carried out, with the purpose of analyzing the incidence of HSIL in the reports of cervical cytology exams carried out between the years 2018-2022 in Maranhão. Data was collected through the DATASUS platform, in the National Cancer Information System (SISCAN) – cervix and breast, selecting the cervical cytology options by patients and the state of Maranhão. The variables considered were: age group, cytopathological report and year of result 2018-2022, being allocated in an Excel spreadsheet. Secondary data was used and submission to the Research Ethics Committee was not necessary. **RESULTS:** A total of 651,438 cytopathological reports were obtained in the period 2018-2022, among which 627,186 were negative reports and 7,139 were unsatisfactory reports. In total, 16,611 reports with cytopathological changes were found, and of these, 3,429 with positive findings for HSIL, representing 20.64% of the total cytopathological changes between the years of the study. The predominant age group was between 35 and 39 years old, comprising 15.13% among all age groups with HSIL. The year with the highest number of cases detected was 2022, with around 1,034 cases of HSIL, on the other hand, the year with the lowest detection of cases was 2020, with around 348 detections. **CONCLUSION:** Studies that evaluate the incidence of HSIL show promise from the point of view of secondary health prevention in Maranhão. The results of this work point to the significant detection rate of HSIL (20.64%), when compared to the more than 11 possible changes in the cytopathological reports. In this sense, the relevance of early detection of HSIL is highlighted by carrying out preventive examinations regularly and assertively, and it is essential to guide women regarding the need for investigation and, eventually, treatment.

**82. CHLORTHALIDONE AND HYDROCHLOROTHIAZIDE IN ANTIHYPERTENSIVE TREATMENT: UPDATES**

Bruno Miranda Rosa Gonçalves<sup>1</sup>, Carlos Vinícius Vale De Andrade Costa<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Gláucio Lima Barboza Filho<sup>1</sup>, Nicollas Barroso De Oliveira Pereira<sup>1</sup>, Rachel Melo Ribeiro<sup>1</sup>.

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**INTRODUCTION:** Systemic arterial hypertension (SAH) is recognized worldwide as one of the leading causes of mortality, being frequently associated with other cardiovascular diseases with atherothrombotic characteristics, whose pharmacological treatment includes the use of thiazide and thiazide-like diuretics, represented by hydrochlorothiazide (HCTZ) and chlorthalidone (CTD), respectively. The report aims to compare the efficacy of the therapeutic use of chlorthalidone and hydrochlorothiazide in antihypertensive treatment. **METHODS:** An integrative literature review was conducted in July 2023, using the PubMed database. In order to maximize the scope of the bibliographic research, from a search in the Health Science Descriptors (DeCS), the descriptors "chlorthalidone" and "hydrochlorothiazide" were chosen and used, combining them with the boolean operator "AND". Among the 36 studies initially found, 06 articles were selected for the composition of the present work based on the following criteria: original articles, dealing with the topic addressed; be in English; have been published between 2021 and 2023. **RESULTS:** The results show that the use of CTD reduces the blood pressure (BP) of hypertensive patients to desired optimal levels, while HCTZ promotes BP reduction, however depending on the magnitude of reduction needed to be achieved, it could not be more indicated in clinical practice, when compared to CTD. In contrast, most studies highlight a greater hypokalemia associated with the use of CTD. In black patients, both diuretics showed proportional efficacy in reducing blood pressure levels to normotensive values, however HCTZ was associated with the lowest incidence of hypokalemia and hyperuricemia. Similarly, in patients with renal impairment and alteration in glomerular filtration rate, HCTZ showed greater benefit and reduction of adverse effects. **CONCLUSION:** In view of the observed results, it can be concluded that more clinical studies are needed to determine the efficacy of these diuretics in SAH, since the data reported in the scientific literature still remain controversial.

**83. HEPATITIS B VACCINATION COVERAGE IN NEONATES IN THE SOUTHEAST REGION BETWEEN 2017-2022**

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**INTRODUCTION:** Hepatitis B is considered a public health problem. Worldwide, more than 250 million people are chronically infected. In Brazil, the hepatitis B vaccine has been recommended for all age groups since 2016, and doses are made available free of charge by the Unified Health System (SUS). The aim of this study is to analyze hepatitis B vaccination coverage in children up to 30 days old (neonates) in the Southeast region. **METHODS:** This is a retrospective epidemiological study using information from DATASUS on vaccination coverage against hepatitis B in neonates from 2017 to 2022 in the Southeast region. **RESULTS:** In the Southeast, the highest vaccination coverage against hepatitis B in children up to 30 days was observed in 2017 (89.71%), followed by 2018 (88.94%). In 2019, a vaccination coverage rate of 73.59% was identified, around 17.25% lower than the previous year. In subsequent years, coverage rates were lower than 77%, reaching a minimum in 2020 (57.91%), followed by 2021 (60.48%). Rates below 61% occurred in the years of the SARS-Cov 2 pandemic. In 2022, vaccination coverage increased from 60.48% in 2021 to 76.19% in 2022, with an increase of approximately 26% in 2022 compared to 2021. In none of the years analyzed did the Southeast region come close to the target of 95% vaccination coverage against hepatitis B for neonates recommended by the Ministry of Health. **CONCLUSION:** The study reveals a low level of protection against hepatitis B in children up to 30 days old in the Southeast. The vaccination coverage observed in the period analyzed was below 90% in all years, reaching minimum levels of 57.91%. Vaccination in the Southeast region in relation to hepatitis B in the group studied demonstrates the urgent need for interventions to enable parents to adhere to vaccination, so that the target recommended by the PNI - National Immunization Program - can be reached (90%), since an inverse relationship is observed between the number of vaccinated and the incidence rate of hepatitis B infections.

**84. PNEUMOCOCCAL VACCINATION COVERAGE IN IMPERATRIZ: ANALYSIS OF PERCENTAGE VARIATION FROM 2014-2022**

Larissa Saboia de Freitas Diógenes<sup>1</sup>, Larissa De Sousa Miranda<sup>1</sup>, Pedro Lucas Baía da Paixão<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Lara Bezerra de Matos<sup>1</sup>, Luana Donato Primo Costa<sup>1</sup>, Alice Marques Moreira Lima<sup>1</sup>

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**INTRODUCTION:** The 10-valent pneumococcal vaccine (PCV10) of Brazil's National Immunization Program (PNI), established in 2010, has been highlighted as a crucial tool in protecting children against pneumococcal diseases. Comprising ten serotypes of *Streptococcus pneumoniae*, the vaccine covers both invasive and non-invasive manifestations of the disease. Since its inclusion in the Brazilian vaccination schedule twelve years ago, PCV10 immunization aims to reduce mortality and hospitalization rates in children up to five years old. In addition to decreasing cases of pneumonia and pulmonary diseases, PCV10 also contributes to reducing penicillin-resistant variations. Therefore, the study aims to analyze vaccination coverage in the municipality of Imperatriz, Maranhão, over a span of nine years. **METHODS:** Relevant data were obtained from the Information System for Immunization Program Evaluation, available on the electronic portal of the Department of Health Informatics of the Unified Health System (DATASUS). To ensure precise analysis, the sample was restricted to the Maranhão State, Imperatriz Municipality, and pneumococcal vaccination coverage from 2014 to 2022. Data organization was carried out using Excel software. Subsequently, the concept of percentage variation was applied, consisting of subtracting the current year's vaccination coverage from the previous year's, divided by the previous year's vaccination coverage, multiplied by 100. **RESULTS:** The analysis of pneumococcal vaccination coverage in Imperatriz revealed differing coverage profiles. It was observed that in 2016, there was an 11.8% increase compared to 2015, while in 2022, there was a 4.6% increase compared to 2021. Conversely, during the COVID-19 pandemic period from 2020-2021, a notable reduction of 11.3% was observed compared to the non-pandemic period, where the reduction was only 2.2%. **CONCLUSION:** The data indicate notable fluctuations during the analyzed period. While some years showed significant increases, others recorded significant reductions, which may correlate with the period of social isolation during the coronavirus pandemic. These results provide crucial insights to enhance vaccination efforts and underscore the importance of maintaining constant vigilance over vaccination coverage to ensure community protection against pneumococcal bacteria.

**85. CO-INFECTION BY LEISHMANIASIS AND NEUROTOXOPLASMOSIS IN PATIENTS WITH AIDS: CASE REPORT**

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**INTRODUCTION:** Toxoplasmosis is an infection caused by *Toxoplasma gondii*, an obligate intracellular protozoan with worldwide distribution. Neurotoxoplasmosis (NT) is the main cause of damage with mass effect on the central nervous system (CNS) in patients with Acquired Immune Deficiency Syndrome (AIDS). Visceral Leishmaniasis (VL) is a systemic and chronic disease caused by the parasite *Leishmania* spp, and the diagnosis can be made using immunological and parasitological techniques. These diseases can lead to fatal complications if left untreated. This case report describes the management and evolution of a patient with these concomitant conditions. This report was submitted for evaluation by the Research Ethics Committee (CEP), in accordance with the guidelines and regulatory standards for research involving human beings, approved according to Certificate of Presentation for ethical assessment no. 54533521.0.0000.5084. **CASE DESCRIPTION:** 35-year-old male patient, diagnosed with AIDS 2 years ago, on irregular antiretroviral treatment, with CD4 cell count of 100 cells/mm<sup>3</sup> and detectable HIV viral load. The patient reported having lived in an area endemic for Leishmaniasis, presenting ulcerated skin lesions for 2 months. He did not seek care until systemic symptoms, including recurrent fever, anorexia, weight loss and progressive weakness, led to his hospitalization. He was diagnosed with VL based on pancytopenia, splenomegaly, hepatosplenomegaly and myelogram with amastigote forms of *Leishmania* spp. Therefore, he was treated with Amphotericin B. During hospitalization, he developed intense headache, hemineglect of the left upper limb and deviation of the right lip rhyme. He performed a computed tomography of the skull, confirming multifocal lesions compatible with TN and positive serology for Toxoplasmosis. Treatment began immediately with sulfamethoxazole and trimethoprim. The patient was referred to the infectious diseases reference hospital to continue clinical treatment. **CONCLUSION:** This case highlights the importance of clinical surveillance and management of opportunistic infections in patients with AIDS, especially when serious conditions such as Visceral Leishmaniasis and Neurotoxoplasmosis are present simultaneously. Timely diagnosis and treatment can improve the quality of life and survival of these patients.

**86. COMPARISON OF HOSPITAL MORBIDITY FROM MALARIA BETWEEN THE NORTH AND NORTHEAST FROM 2013 TO 2022**

Emilly Conceição Ribeiro<sup>1</sup>, Claudio de Azevedo Gonçalves Junior<sup>1</sup>, Maria Gabriella Menezes Carneiro<sup>1</sup>, Katarina Costa Silva<sup>1</sup>, Julia Oliveira Sousa<sup>1</sup>

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**INTRODUCTION:** Malaria is an infectious disease, transmitted by the female *Anopheles* mosquito and caused by the *Plasmodium* parasite, which is prevalent in tropical and subtropical areas, such as the Amazon. The objective of this work is to present the relationship between hospital morbidity due to this infection and places with different levels of dissemination: North and Northeast of the country, considering the tropical and subtropical characteristics of the regions. **METHODS:** This is an ecological and retrospective epidemiological study on hospital morbidity due to malaria, when comparing the North and Northeast regions of the country. Secondary data were collected from epidemiological bulletins made available by the Department of Informatics of the Unified Health System (DATASUS) and tabulated by TABNET, between the years 2013 and 2022. **RESULTS:** 16,211 malaria hospitalizations were recorded in the North region from 2013 to 2022, and there was no relevant difference related to sex. In the Northeast region, 1,012 hospitalizations were documented, with a higher incidence in men (around 740 patients) and the most affected age group was 20 to 29 years old in both regions. According to censuses by the Brazilian Institute of Geography and Statistics (IBGE) from 2013 to 2022, the population of the North region varied between 17 and 19 million, while the Northeast region varied between 55 and 58 million. Therefore, the number of hospitalizations should be higher in the Northeast region, however, the data showed the opposite. **CONCLUSION:** Given the above, it is possible to infer that, in the period between 2013 and 2022, the North region of the country had more than fifteen times the number of hospitalizations for malaria, when compared to the Northeast, which may be even more significant, due to the possibility of there being even more hospitalizations that were not registered in DATASUS, configuring a study limitation. The numbers of hospitalizations relate the need to combat malaria in specific areas with operational solutions according to each region, considering that prevention brings positive impacts to the SUS. For this reason, it is essential to carry out measures to reduce the prevalence of malaria in the North of Brazil, through campaigns that promote individual prevention measures, in addition to the need to carry out collective prevention, such as sanitation works to eliminate breeding sites for the vector. and improving housing and working conditions.

**87. THE IMPACT OF VENEZUELAN REFUGEES ON HEALTH SPENDING IN TWO RORAIMA CITIES**Elder Teles Teixeira<sup>1</sup><sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** According to data from the Federal Police's International Traffic System (STI), Brazil is currently home to more than 477,000 Venezuelan refugees. Most of the immigrants enter through the north of the country, in the state of Roraima (RR), and are initially concentrated in the cities of Boa Vista and Pacaraima. In these cities, refugees are welcomed, sheltered and receive health care. The aim of this study is to analyze the impact of spending approved for health care in two cities in Roraima. **METHODS:** This is a comparative study of the amounts approved for outpatient care in two cities in RR with a high number of Venezuelan refugees, between the periods 2011 to 2016 (1st period) and 2017 to 2022 (2nd period). The figures for care were obtained from DATASUS, the Ministry of Health, and the number of refugees in Brazil from STI. As this is a study using secondary data, approval by the Research Ethics Committee is not required. **RESULTS:** In the first period, the municipalities analyzed had a total of R\$257,679,943.08 approved for outpatient care. In the 2nd period, the amounts approved increased by 23% compared to the previous 6 years. This increase did not occur evenly over the years, with a lower amount approved in 2020 than in almost all the years of the 1st period. 2020 also saw the lowest number of Venezuelan refugees entering the country (47,661). The highest amounts approved for outpatient care occurred in 2022, 2018, 2017 and 2019, respectively, coinciding with the years with the highest influx of Venezuelan refugees. **CONCLUSION:** The results suggest a correlation between the influx of Venezuelan refugees and the increase in the amounts approved for health care in the municipalities that primarily receive them. Further research should be carried out to prove this hypothesis.

**88. NEUROLOGICAL COMPLICATIONS ARISING FROM LEPROSY: THE SITUATION OF MARANHÃO IN THIS CONTEXT**Samia Raysa Sales Rodrigues<sup>1</sup>, Murilo Freitas e Silva Filho<sup>1</sup>, Enzo Matheus Mathias Pereira Raiol<sup>1</sup>, Luis Miguel Moraes Araujo<sup>1</sup>, Lanna Marry Silva de Moraes<sup>1</sup>, Wanderson Fortes de Sousa<sup>1</sup>, José Alberto Pereira Pires<sup>2</sup><sup>1</sup>Universidade Federal do Maranhão<sup>2</sup>Hospital Universitário da UFMA

**INTRODUCTION:** Leprosy is an infectious disease, whose etiological agent is the bacterium *Mycobacterium leprae*, transmitted through airway. Its clinical presentation is manifested by skin lesions and, notably, impacts on the peripheral nervous system that can lead to atrophies, paresis, changes in sensitivity and even permanent physical disabilities. It is classified as grade I of functional disability when it affects eyes, hands and feet with decreased or loss of sensitivity, and grade II when these lesions are more severe (lagophthalmos and/or ectropion, trichiasis, visual impairment, hands and feet with visible damage). The state of Maranhão has a high endemicity for the disease, implying the need for studies on its impact in the region. **METHODS:** A descriptive epidemiological study was conducted using a database available at the Information Technology Department of the Unified Health System (DATASUS) regarding the number of cases with neurological complications due to leprosy. The studied population consisted of leprosy cases classified as grade I and II, at the level of functional disability registered in Maranhão between the years 2020 and 2023. **RESULTS:** During the analyzed period, there were 3,881 notifications of functional disabilities of grades I and II in Maranhão – 2,968 (76.5%) grade I and 913 (23.5%) of grade II –. 2022 had the highest number of registrations. In terms of gender, 1,928 (64.95%) were male with grade I disability, also being the majority for grade II disability (77.33%). Regarding race, the majority, 2,633 (67.8%), were mixed race. Finally, concerning health macro-regions, a higher number of registrations were observed in the North Macro-region, 2,283 (58.8%), consisting of the municipalities of São Luís, Rosário, Pinheiro, Viana, Santa Inês, Bacabal, Chapadinha, Itapecurú Mirim and Zé Doca. **CONCLUSION:** Neurological involvement due to leprosy should be evaluated more carefully, given its high prevalence in the state, demonstrating the intimate relationship between the quality of healthcare offered and the complications of the pathology. Furthermore, grade I neurological involvement had the highest number of registrations, with brown men being the majority, highlighting the need for studies that can clarify the increased occurrence in this group.



**89. POSTOPERATIVE COMPLICATIONS IN WHIPPLE SURGERY: A LITERATURE REVIEW**

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**INTRODUCTION:** Whipple surgery or pancreaticoduodenectomy is a complex and high-risk surgical intervention involving the removal of the pancreatic head, duodenum, part of the bile ducts, and the gallbladder. This procedure is of paramount importance and represents the curative treatment for the fourth leading cause of cancer death worldwide, pancreatic cancer. Given its complexity and relevance, this study aims to understand and identify postoperative complications attributed to Whipple surgery. **METHODS:** This is a systematic literature review of complications and mortality after the Whipple procedure, constructed from publications found in the "Pubmed" and "SciELO" databases using the descriptors "Whipple," "complications," and "mortality." Five studies published between 2010 and 2023 were selected, excluding those outside the mentioned period. **RESULTS:** Based on the literature review, Whipple surgery is a complex and high-risk intervention, with an intra-hospital or within 30 days postoperative mortality rate of 15.8%. Complications can lead to unfavorable clinical conditions, including sepsis, pneumonia, pulmonary thromboembolism, vascular thrombosis, and multiple organ failure, with septic shock being the most prevalent cause of death. Additionally, a relevant association between cardiac arrests and mortality was observed. The need for blood transfusion during surgery was associated with a worse prognosis. Furthermore, postoperative pancreatic fistula represents an important determinant outcome post-pancreaticoduodenectomy, potentially resulting in hemorrhagic and septic complications. **CONCLUSION:** Despite advances in surgical techniques, operative management, and intensive care therapy, along with a concurrent reduction in postoperative mortality, Whipple surgery still presents a high prevalence of postoperative complications. There is a need to improve surgical techniques and teams so that postoperative complications and operative morbidity and mortality decrease over time, thereby enhancing the outcomes and quality of life of patients undergoing this surgery.

**90. POSTOPERATIVE COMPLICATIONS AFTER LATE BARIATRIC SURGERIES BY GASTRIC BY-PASS**

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**INTRODUCTION:** The most widely performed procedure in the field of bariatric surgery today is gastric bypass, considered the most effective treatment for obese patients with various metabolic disorders and related pathological conditions. However, the procedure is not without postoperative complications, which can manifest with varying degrees of morbidity and mortality, categorized as early or late onset with diverse causes, mostly influenced by intrinsic patient factors as well as the technique used. The research aims to describe the late surgical complications of bariatric surgeries by gastric bypass. **METHODS:** This is an integrative review of an exploratory and qualitative nature, conducted based on articles found in the PUBMED and SCIELO databases. The research was carried out using Health Science Descriptors (DeCS/MeSH): "Bariatric surgery" and "Postoperative complications," combined with the boolean operators "AND" and "OR." 101 studies were found in accordance with the inclusion criteria used: full text, available for free access, published between 2019 and 2023. Among these, 6 articles were selected that fit the purpose of this research. **RESULTS:** Late postoperative complications of gastric bypass surgeries vary in incidence from 1.8% to 25%, as indicated by studies. Among the possible complications, the most recurrent are anastomotic stenosis, gastric and duodenal ulcers, internal hernias, fistulas, and dumping syndrome. To prevent such complications, regular patient follow-up and early identification of signs and symptoms associated with these adverse events are important for timely surgical intervention. Furthermore, late complications may also include nutritional deficiencies and long-term weight gain. **CONCLUSION:** Gastric bypass is a bariatric surgery technique considered the gold standard but may present late complications. In addition to the inherent risks of the procedure, it is important to consider the individual risk factors of each patient. To ensure the best results in terms of health and quality of life, it is crucial for the surgeon to comprehensively and individually assess the risks and benefits of gastric bypass for each patient.

91. **BIRTH CONDITIONS OF NEWBORNS IN BRAZIL, FROM 2019 TO 2021**

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**INTRODUCTION:** The study of maternal and child health is crucial for understanding the development and physical well-being of both the pregnant woman and the baby, being linked to disease prevention and health promotion. In this sense, the Unified Health System (SUS) created in 1990, from the Live Birth Information System (SINASC), the Declaration of Live Birth (DNV), a document for registering maternal and child conditions, such as the Apgar score, birth weight, and gestational age; important indicators for defining appropriate birth parameters. Thus, the present study aims to analyze the birth conditions of newborns in Brazil from 2019 to 2021. **METHODS:** The study is an analytical observational cross-sectional study, using data obtained through SINASC for all newborns in the years 2019, 2020, and 2021, considering Apgar scores at 1st and 5th minutes, birth weight, and gestational age. Newborns were classified as being born in favorable conditions if they had a birth weight greater than or equal to 2500g and less than or equal to 4000g, Apgar scores at 1st and 5th minutes equal to or greater than 7, and gestational age greater than or equal to 37 weeks and less than 42 weeks. **RESULTS:** There was a 6.03% reduction in the number of live births from 2019 to 2021. There was a decrease in the proportion of 1st-minute Apgar scores from 2019 to 2020, and an increase from 2020 to 2021. From 2019 to 2021, there was a general reduction in 5th-minute Apgar scores. From 2019 to 2020, there was a decrease in the proportion of low birth weight and adequate weight newborns, and an increase in newborns with high birth weight. From 2020 to 2021, there was an increase in low birth weight newborns, adequate weight newborns, and a decrease in newborns with high birth weight. There was an increase in preterm newborns from 2019 to 2021. From 2019 to 2020, there was an increase in term newborns and a reduction in post-term babies, and from 2020 to 2021, there was a reduction in term live births and an increase in post-term births. **CONCLUSION:** It is evident that, although the analyzed triennium was marked by challenges to maternal and child health, the analysis of the data indicates a percentage increase in births considered favorable by the study. In addition to this, there is a reduction in unavailable data, demonstrating a fundamental role played by the public health system in improving birth conditions. Therefore, the need to expand and advance services provided to the mother-baby dyad is concluded, in order to enable the rise of favorable markers observed.

92. **CONSUMPTION OF NEUROSTIMULANTS BY MEDICAL STUDENTS: A LITERATURE REVIEW**

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**INTRODUCTION:** Brain stimulants are substances with properties such as increasing motivation, alertness and improving concentration. Students on medical schools commonly use these resources with the finality of improving academic performances given that college education requires high levels of cognitive development. The present study aims to investigate, through a literature review, aspects related to the consumption of neurostimulants by medical students. **METHODS:** A literature review was carried out between 2015 and 2021, using the following databases: Pubmed, Google Scholar, Bireme and Scielo. After a systematic evaluation of the studies, the most pertinent articles were used to compose the core of this research. **RESULTS:** Central nervous system stimulants are widely used to contribute to cognitive improvement, reduce depressive symptoms and increase mood and performance. The most commonly utilized substances are caffeine, energy drinks, 3,4-methylenedioxy-N-methylamphetamine (MDMA), methylphenidate, modafinil and amphetamines. Although the specific mechanisms of action may vary, these stimulants act directly or indirectly on neurotransmitters that influence the improvement of motivation, attention and reward. Thus, 52.3% of the university students analyzed on the age range of 18 to 23 years consume these substances with a higher prevalence of caffeine and energy drinks, which are mostly used before exams and in the first year of the course. Methylphenidate, also known as ritalin, was one of the most widely used synthetic nootropics, and 23.5% of the students admitted to using it without a prescription. It demonstrates a lack of knowledge about its mechanism of action and adverse effects. In addition, there are important side effects related to the use of psychostimulants, which can vary in the short term, such as loss of appetite, irritability, insomnia, headache and abdominal pain, and in the long term, addiction, cardiovascular effects, anxiety and tremors. **CONCLUSION:** It can be inferred that the majority of medical students consider neuro-stimulants as a necessity and an effective way for momentary comfort and motivation. However, in the long-term period, these substances can carry negative health effects on the students. It is crucial then to assess the consequences of consuming these stimulants in order to minimize possible harmful effects.

**93. GLYCEMIC CONTROL IN RUNNERS WITH TYPE 2 DIABETES**

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**INTRODUCTION:** Type 2 diabetes is a metabolic disease characterized by hyperglycemia due to alterations in insulin secretion and/or action. Glycemic control in regular runners is a therapeutic strategy for the prevention and treatment of this syndrome, improving body composition and muscle metabolism related to lifestyle in this group. With this in mind, the study aimed to review the effect of running on glycemic control in diabetic patients who practice this modality. **METHOD:** Data was collected through a literature review using the descriptors "Controle glicêmico" or "glycemic control", "Corrida" or "running", "Diabetes Mellitus type 2" or "Diabetes Mellitus type 2", using articles from the BVS, Scielo, lilacs and Medline search engines. The inclusion criteria were original articles published in full online in Portuguese and English, within the last 5 years, using the aforementioned descriptors in the respective languages. The exclusion criteria were duplicate articles and those that did not meet the theme of the data search using the defined descriptors. **RESULTS:** With regard to the evidence of glycemic adjustment, it was possible to observe in the literature that there are significant benefits related to running and diabetes, such as a reduction in insulin resistance, a reduction in abdominal circumference and visceral fat in regular runners who run at least three to five times a week. It was possible to see a direct effect and significant impacts within a year of doing this physical exercise, as evidenced by the reduction in glycated hemoglobin, which resulted in a 15-20% reduction in cardiovascular events and a 37% reduction in microvascular complications. There was also an increase in the suppression of hepatic glucose production, improving the insulin sensitivity index in the liver, evidenced by the decrease in the postprandial C-peptide marker as an indicator of improvement in this result. **CONCLUSION:** Therefore, the importance of running as a regular practice can be seen, as it is directly related to improving quality of life and reducing glycemic indices.

**94. CORRELATION BETWEEN ANTHROPOMETRIC INDICATORS AND CARDIOVASCULAR RISK IN THE ELDERLY**

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**INTRODUCTION:** The aging of the population has contributed to increasing numbers of prevalence of cardiovascular diseases, as they are the pathologies that most affect this population. Anthropometric parameters are important sources of cardiovascular risk indicators as they take into account changes in body composition experienced in the older population. Therefore, this study aimed to verify the correlation between the Body Mass Index (BMI) and anthropometric indicators of cardiovascular risk in the elderly. **METHODS:** Cross-sectional study based on data from 7,072 elderly people participating in the second wave of the Brazilian Longitudinal Study on Aging (ELSI-Brazil), aged 60 years or over, living in the five major regions of the country. Data were collected between 2019 and 2021, related to socioeconomic, demographic, behavioral and anthropometric characteristics. The study was approved by the Ethics Committee of the Oswaldo Cruz Foundation - Minas Gerais (CAAE: 34649814.3.0000.5091). For data analysis, the Stata® version 14.0 program was used and for correlation between anthropometric indicators of cardiovascular risk, waist circumference (WC), waist-hip ratio (WHR), waist-height ratio (WHtR) and the BMI, Pearson's coefficient was used (p-value < 0.05). **RESULTS:** The average age was 70.1±8.8 years, of which 61.1% were women, 47.3% considered themselves white, 50.2% were married or had partners, 59.6% had the elementary school, 58.3% had a family income of less than one minimum wage, 89.2% did not smoke, 81.0% did not consume alcohol and 72.2% were sedentary. In reference to anthropometric variables, it was found that BMI and other indicators point to the risk of developing cardiovascular diseases. A strong correlation was also found between BMI and WC and WHtR. **CONCLUSION:** It was found that the best correlation to analyze the risk of cardiovascular disease in the elderly is between BMI, WC and WHtR. When correlating anthropometric parameters, the most consistent with each other are WC and WHtR, followed by WC and WHR in a moderate way, as well as WHR and WHtR. This information can help prevent probable cases of cardiovascular risk for this population. It is also important to highlight that the best way to prevent the onset of cardiovascular disease is a healthy and adequate diet associated with physical activity.

95. **OBSTETRIC CARE IN THE CONTEXT OF PERINATAL BEREAVEMENT: AVAILABLE SCIENTIFIC EVIDENCE**

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**INTRODUCTION:** Perinatal bereavement covers losses occurring during pregnancy from 22 weeks to the 29th day of life. It is estimated that almost half of late fetal deaths occur in apparently uncomplicated pregnancies. Therefore, families are generally not prepared for the loss, or for the loss of expectations of a birth full of happiness. In this scenario, the work of a qualified multidisciplinary team is essential to minimize suffering. Therefore, this work aims to review the best scientific evidence available to guide the actions of professionals who provide obstetric care in the context of perinatal bereavement. **METHODS:** This is a literature review constructed by searching multiple databases, such as: UpToDate, PubMed and ACCESSSS. The words Perinatal Bereavement, fetal death and Palliative Care were used as descriptors. **RESULTS:** The moment of diagnosis is especially painful for families and brings to light the need for the ability to communicate bad news and an institutionalized protocol in the health service, which must be known by the entire team. A type of "advance directive" can be considered for fetuses with serious malformations diagnosed during prenatal care, to be decided together with the family and the assistant team, which must include a neonatologist and palliative care team. Counseling is crucial in coping with loss, and intervention must be guided by the parents' wishes, also considering that the baby does not suffer from dysthanasia. The peripartum period must be attended in a separate space from other patients. Postpartum assessment is essential in planning a new pregnancy, if the family wishes. It is also necessary for the assisting professional to know the legal requirements for terminating a pregnancy, as well as limiting or withdrawing the life support system, even if such procedures conflict with their personal beliefs. It is recommended that the family be offered the possibility of seeing and holding the deceased baby, after being prepared for its physical appearance when it is extremely premature or has malformations. **CONCLUSION:** Team preparation is crucial when helping the family to develop a bond with the baby, as it helps prevent emotional distance from the loss and helps in the preparation of healthy mourning. The performance of the assisting health professional can be decisive in the outcome for the mental health of the family involved in the loss.

96. **PALLIATIVE CARE AND CHEMOTHERAPY IN TERMINAL PATIENTS: WHAT IS THE BEST INTERVENTION?**

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**INTRODUCTION:** Chemotherapy in the final weeks of life is a controversial medical approach. The pursuit of quality of life becomes crucial at this stage, and the decision to proceed with chemotherapy should be carefully considered, as palliative care, in some cases, could be the better option. The overall goal of this research is to assess the effectiveness of chemotherapy in terminal cancer patients, considering both potential benefits and associated challenges, as well as the ethical and clinical issues related to decision-making in this sensitive context. **METHODS:** The study presents itself as a qualitative, retrospective research with a literature review approach. Bibliographic search was conducted on platforms such as PubMed, BVS Saúde, and Scielo using the descriptors: "Chemotherapy," "Cancer," "Palliative Care," and "Quality of Life." Article synthesis was based on the review of scientific studies and the formulation of the guiding question: "What are the impacts of chemotherapy on the quality of life of terminal patients?" Articles in both Portuguese and English were included, and the temporal delimitation of the research focused on articles published between 2017 and 2023. **RESULTS:** From the bibliographic survey, it became evident that palliative care is the most appropriate alternative for terminal cancer patients, offering a significant improvement in quality of life and symptom relief, along with providing necessary psychological support and dignity to the patient. However, there is still a significant number of patients undergoing chemotherapy in their final weeks of life, even without the prospect of curing the disease. This represents a disregard for the individual patient's wishes and exposes them to unnecessary toxic substances and unwanted effects. **CONCLUSION:** Palliative care for terminal cancer patients provides humane care at a lower cost to the healthcare system, reducing ICU admissions, overall hospitalizations, and interventions. It brings significant benefits to the quality of life for both patients and their families. Moreover, chemotherapy treatment in patients in a terminal state ends up causing more harm than good, considering the lack of necessary humanized support for patient care.

**97. EPIDEMIOLOGICAL DATA OF AMERICAN TEGUMENTARY LEISHMANIASIS IN A CITY IN SOUTH MARANHÃO**Asafe Diniz Matos<sup>1</sup>, Maria Clara Gadelha Lopes<sup>1</sup>, Giovanna Santana Mendonça<sup>1</sup>, Wellyson da Cunha Araújo Firmo<sup>1</sup><sup>1</sup>Universidade Estadual da Região Tocantina do Maranhão

**INTRODUCTION:** American Cutaneous Leishmaniasis (ATL) is a pathology caused by the protozoan of the genus *Leishmania*, present in Brazil since 1934, when it was first confirmed in São Paulo. Therefore, ATL transmission occurs through the bite of the female straw mosquito (*Lutzomyia cruzi*), its incubation time varies from 2 to 3 months. Therefore, to prevent contamination, accumulation of garbage, stagnant water and exposure to mosquitoes must be avoided. For a complete cure, the patient must faithfully follow the proposed treatment, which is provided free of charge by the SUS. Furthermore, this studied pathology mainly affects low-income populations, which do not have adequate basic sanitation and personal protection conditions, which is why it is a neglected disease. Finally, the objective of this study is to expose and analyze the numbers of ATL in the city of Açailândia, as well as the gender most affected. **METHODS:** To carry out the proposal, the TabNet platform was used, where the number of positive cases was researched in the four-year period from 2019 to 2022, and the gender most affected by the disease was researched in the years analyzed. **RESULTS:** During the proposed years, in 2019, 75 positive cases of the disease were found, 59 cases in men and 16 in women. The following year, 43 cases were reported in total, of which 34 were in men and 9 in women. In 2021, 19 diagnoses were made to men and 9 to women, totaling just 28 confirmed cases. In the last year (2022) analyzed, there were 107 cases of ATL reported, 84 cases in men and 23 in women. At the end of the proposed four-year period, 253 cases of the disease were confirmed, 196 (77.4%) in males and 57 (22.4%) in females, showing a considerable discrepancy between the affected sexes. **CONCLUSION:** Regarding the sex of patients, it is concluded that men are more exposed to contamination, due to the lack of adequate protection and certain jobs that are historically more common for men, which is why there is greater notification to the male public. From the perspective of notifications, in the years 2020 and 2021, there was the COVID-19 pandemic, which reflected in the reduction of ATL notifications, due to social isolation and the consequent lack of demand for primary care. In 2022, there was a large increase in notifications, due to the restructuring of services, with the end of the state of emergency caused by the pandemic.

**98. CHEMICAL DEPENDENCE ON OPIOIDS: CLINICAL CONSEQUENCES OF THE INDISCRIMINATE USE OF FENTANYL**Romulo Diniz Rego Lima<sup>1</sup>; Felipe Viegas Assunção<sup>1</sup>; Mayara Kelly Coelho Berrêdo<sup>1</sup>; Elaine Souza Lobato<sup>1</sup>; Victor de Souza Calixto Neves da Silveira<sup>1</sup>; Darlan Ferreira da Silva<sup>1</sup>.<sup>1</sup>Universidade Ceuma

**INTRODUCTION:** Opioids are frequently used in hospital settings, due to their high analgesic and sedative potential for moderate to severe pain. Of the most used active ingredients, Fentanyl stands out, derived from morphine, with significant tolerance and dependence power. Therefore, this work aims to understand the consequences of the indiscriminate use of this medication. **METHOD:** This study is a descriptive literature review that includes analysis and interpretation of data, aiming at a critical assessment of the indiscriminate use of Fentanyl. The research was based on articles from the Scientific Electronic Library Online (SCIELO), Google Scholar and PubMed platforms, in the time range from 2018 to 2023. **RESULTS:** Chemical dependence on Fentanyl is associated with a combination of factors, including genetic predisposition, psychological profile and sociocultural context. This occurs due to the adaptation mechanism in the  $\mu$  receptors of the central nervous system, responsible for analgesia. With chronic consumption, tolerance develops, and with this comes the need for larger doses to produce similar effects, leading to a deterioration in mental and physical health in general. The risk of overdose from Fentanyl is significantly high, being around 100 times more potent than morphine, with lethal doses of around 2 mg. This is evidenced by the increase in deaths from synthetic opioids in the USA between 2020 and 2021, with 56,000 and 70,000 deaths, respectively, representing an almost fifteen-fold increase compared to 2010, predominantly due to Fentanyl. **CONCLUSION:** In this scenario, the indiscriminate use of Fentanyl is alarming due to its popularization and the associated serious clinical consequences. Uncontrolled use is related to worsening dependence with high doses often combined with other pain-relieving drugs, increasing the risk of intoxication and overdose. Therefore, it is crucial to critically address the use of Fentanyl to combat this growing public health crisis.

99. **DEPRESSION IN THE ELDERLY: AN ANALYSIS OF RISK FACTORS AND PHARMACOLOGICAL THERAPY**

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<sup>1</sup>FAHESP/IESVAP<sup>1</sup>

**INTRODUCTION:** The elderly population is more vulnerable to health problems, with a higher prevalence of mental illnesses, with an emphasis on depression, which has a prevalence of 15% in this group. The disease is caused by a series of psychopathological changes that can differ in symptoms, severity and prognosis. Several biopsychosocial risk factors are described, including clinical comorbidities, functional decline, grief and social isolation, as well as chronic conditions, loss of independence and mobility. It is most commonly manifested by a depressive and/or irritable mental state. The treatment has a medicinal approach as the first choice, and can be combined with psychotherapy and physical exercise. Therefore, the present study aims to understand the risk factors and pharmacological management of these patients. **METHODS:** This is an integrative, qualitative, retrospective and bibliographic literature review. Around 10 articles were analyzed between the period 2019 and 2023, extracted from the following databases: Google Scholar, Scielo and Lilacs, about risk factors and pharmacological treatment of depression in the elderly with the descriptors "Depression", "Elderly", "Factors risk", "Pharmacological Therapy" and Boolean operators "AND" and "OR". **RESULTS:** Pharmacological therapy is carried out with antidepressants, with selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants, monoamine oxidase inhibitors, selective noradrenaline reuptake inhibitors, serotonin and noradrenaline reuptake inhibitors being recommended for the elderly population. SSRIs receive greater emphasis as they present lower intoxication, dropout rate, drug interactions and side effects, characteristics that offer greater benefit to these patients who sometimes have several comorbidities and are on polypharmacy. On the other hand, attention should be paid to the rates of suicidal thoughts at the beginning of treatment, as its action begins after two weeks. Biopsychosocial risk factors can negatively interfere with treatment as they can lead to a worsening of the condition. **CONCLUSION:** It is concluded that depression is a multifactorial disease, of great importance, with several factors that influence it and that affects a large proportion of elderly people. Therefore, one must have knowledge of pharmacological treatment. Thus, doctors must have a critical approach to this problem and ask themselves how best to help their patients.

100. **DEPRESSION IN POLYCYSTIC OVARY SYNDROME (PCOS) WOMEN IN SÃO LUÍS-MA, BRASIL**

Walex Randly Alves Lima<sup>1</sup>, Klésio Mendes Serrão Filho<sup>1</sup>, Anny Luísa Bonfim Lisboa<sup>1</sup>, Francisco Victor Teles de Souza<sup>1</sup>, Taysa Mendonça Silva<sup>1</sup>, Maryana Oliveira Viana<sup>1</sup>, Haissa Oliveira Brito<sup>1</sup>  
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**INTRODUCTION:** The Polycystic Ovary Syndrome (PCOS) is an endocrine disease that presents symptoms related to metabolic syndromes, like type 2 Diabetes and cardiovascular diseases, and presenting irregularity in the menstrual cycle. Being prevalent in women of reproductive age, varying according to age, ethnicity and used diagnostic criteria. Furthermore, has unknown etiology with genetics and epigenetics. The current study has the goal to investigate the association between the depressive behavior and women with the polycystic ovary syndrome. **METHODOLOGY:** A cross-sectional study was conducted with 139 women, 71 women with PCOS and 68 healthy women in the control group aged 24-33 years old. The patients attended the Gynecology Clinic of a public research Hospital in Maranhão, where PCOS was confirmed through nutritional assessment, biochemical tests and ultrasound exams. To investigate levels of depression related to PCOS, the Beck's Depression Inventory (BDI) was applied. This study was approved by the Research Ethics Committee from the University Hospital — UFMA (protocol #71987) and meets the requirements of the Declaration of Helsinki. All the participants signed a consent form. **RESULTS:** PCOS women presented higher risk of low, moderate or high depression (OR = 6.00; 95% CI: 2.39-15.05; P < 0.01) while compared with control group, regardless of cofactors such as age or marital status. **CONCLUSION:** It was found that PCOS women are at increased risk for symptoms of depression when compared to women without PCOS.

**101. DERMATOSIS ASSOCIATED WITH HIV INFECTION: LITERATURE REVIEW**

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**INTRODUCTION:** The human immunodeficiency virus (HIV) causes great depletion of the immune system by reducing the total number of CD4 lymphocytes, leading to the emergence of opportunistic infections in various organs, including the skin. It is known that approximately 90% of people living with HIV present, during the course of the disease, skin changes that are considered by the WHO to be useful in assessing the severity of the infection. This article reviewed the main studies available in the literature on the topic, given their relevance and clinical importance. **METHODS:** Bibliographical survey, carried out on the LILACS, Scielo and Pubmed platforms, of studies addressing the topic of dermatoses related to HIV infection, published in Portuguese, English and Spanish between the years 2017 and 2023. No articles were analyzed outside the period of survey or in another language. **RESULTS:** Most HIV-positive patients present some mucocutaneous lesion of infectious origin, whether fungal (33.03%), bacterial (28.18%) or viral (14.55%). HIV infection predisposes to co-infection by other pathogens, particularly herpes simplex (52.4%) and oropharyngeal candidosis (47.6%), which is considered a predictor of immunological status. Among the most common dermatoses, xerosis (54.8%) and seborrheic dermatitis (54.4%) stand out, the latter of which can reach an incidence of 85 to 95% in cases of advanced HIV infection. Regarding the inflammatory dermatoses most commonly associated with HIV, the following are evident: psoriasis, atopic dermatitis, eosinophilic folliculitis, pruritic papular eruption, photosensitivity disorders, nodular prurigo and acquired ichthyosis. There is also a link between HIV-induced immunosuppression and increased predisposition to some skin cancers, including squamous cell carcinoma, melanoma, Kaposi's sarcoma and Merkel cell carcinoma. **CONCLUSION:** The intimate relationship between HIV and many dermatological manifestations is evident. HIV-positive individuals present dermatoses that are important markers of the evolution of immunosuppression, also enabling the diagnosis of opportunistic infections with extracutaneous involvement, which demonstrates undeniable clinical relevance. Therefore, it is essential for all health professionals to recognize early cutaneous manifestations related to HIV. HIV infection.

**102. PERSISTENT CHALLENGES: A RETROSPECTIVE STUDY OF MATERNAL MORTALITY IN MARANHÃO (2012-2021)**

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**INTRODUCTION:** Maternal death, as defined by the World Health Organization (WHO), refers to the death of a woman during pregnancy or within 42 days after the end of pregnancy. In Brazil, the main causes include hypertensive disorders, hemorrhages, puerperal infections, and complications resulting from abortions. The reduction of maternal mortality is one of the Sustainable Development Goals (SDGs); however, despite efforts made, Brazil still faces significant challenges in achieving this goal. Maternal mortality persists as a serious public health issue. **METHODS:** This is a descriptive retrospective study on maternal mortality in the state of Maranhão from 2012 to 2021. Data were obtained through queries to the database available at the Department of Health Information System (DATASUS) and processed using Microsoft Excel® for descriptive statistical analysis. **RESULTS:** Between the years 2012-2021, 1,035 maternal deaths were recorded, with 88% occurring in a hospital setting. Direct obstetric causes accounted for 75% of cases, while indirect causes composed 24%. Eclampsia was the leading cause (16%). An increase in deaths due to infectious and parasitic diseases was observed in 2020 and 2021, possibly related to the COVID-19 pandemic, with 17 and 57 cases respectively in each year, while the previous 8 years (2012-2019) totaled 11 cases. Regarding the sociodemographic profile, the most affected age group was 20-29 years (41%), followed by 30-39 years (33%). The majority of women identified themselves as mixed race (69%). About 46% were single, and 43% had between 8 to 11 years of education. **CONCLUSION:** Maternal mortality is a crucial indicator of reproductive health that reflects the quality of health services. Cases of infectious and parasitic diseases have increased in recent years, possibly due to the COVID-19 pandemic. Maranhão still faces challenges in reducing maternal mortality, emphasizing the needs for improvements in prenatal care and new strategies to address this issue.

**103. DESCRIPTION OF MALE BREAST CANCER CASES IN THE STATE OF MARANHÃO BETWEEN 2012 AND 2023**Marliane Lisboa Soares<sup>1</sup>; Dâmaris Gonçalves Vieira<sup>1</sup>; Mariana Azevedo Oliveira<sup>1</sup>; Ana Gabriela Caldas Oliveira<sup>1</sup><sup>1</sup>Universidade Federal do Maranhão (UFMA)

**INTRODUCCION:** Male breast cancer is a rare disease, accounting for less than 1% of all cancers in men. Although less common than female breast cancer, this condition deserves attention. The study aims to describe the occurrence of breast cancer in men over an 11-year period in the state of Maranhão. **METHODOLOGY:** This is a descriptive, observational study involving the collection of epidemiological data and information from mammography reports of male patients with breast cancer in Maranhão, as documented in the Department of Informatics of the Unified Health System (DATASUS). The study considers age, gender, educational level, and information about mammography. **RESULTS:** A total of 887 cases of male breast cancer were diagnosed, with a predominance in the year 2022 (23.11%, n=205), followed by 2023 (14.32%, n=127) and 2021 (13.53%, n=120). The age group with the highest incidence was between 45 and 64 years (n=484 cases). Approximately 98.20% of the sample (n=871) did not provide information on educational background, with only 0.90% (n=8) having completed high school, and 0.45% (n=4) having completed elementary school or being illiterate. Regarding mammography data, 83.54% (n=741) underwent screening mammography, and 17.47% (n=155) underwent diagnostic mammography. Both indications showed the highest number of cases in the age group of 45 to 64 years. **CONCLUSION:** The results demonstrate that male breast cancer primarily occurs in individuals over 40 years old, emphasizing advancing age as a risk factor for breast cancer development. The significant amount of missing data regarding education suggests a lack of interest in recording this information in medical records. Mammography is the primary examination performed in male patients with breast cancer. Therefore, it is crucial to implement policies aimed at preventing and facilitating early diagnosis of breast cancer in men in the state of Maranhão.

**104. COGNITIVE DEVELOPMENT OF INDIVIDUALS WITH AUTISM: A LITERATURE REVIEW**Vanessa Gonçalves de Sousa Vidal<sup>1</sup>, Carla Cristine Gonçalves de Souza<sup>2</sup>, Luís Augusto Marinho de Lucena<sup>2</sup>, Thalita de Cássia Silva de Oliveira<sup>1</sup>, Fernando Martins de Oliveira<sup>1</sup>, Laila de Castro Araújo<sup>1</sup>, Valéria de Castro Fagundes<sup>1</sup>.<sup>1</sup>Faculdade de Ciências Médicas do Pará - FACIMPA<sup>2</sup>Centro Universitário do Maranhão – CEUMA

**INTRODUCTION:** Autism Spectrum Disorder (ASD) is a chronic and invasive neurodevelopmental condition more prevalent in males' gender (around 4 times) when compared with females and its estimated prevalence is around 1-2%. It is a disorder that affects the social, communicative and behavioral development of individuals, resulting in difficulties in expression and social relationships, in addition to presenting specific interests and repetitive behaviors. Therefore, the aim of this work is to understand cognitive development in ASD in order to better understanding the signs and symptoms this disorder. **METHODOLOGY:** This work is a bibliographic review of studies published between 2019 and 2023, in the databases of Lilacs and Pubmed. For this, we used the crossing of the descriptors "Autistic Spectrum Disorder" and "Cognitive function" in Portuguese, English and Spanish. **RESULTS:** Observed that the deficiency of anti-inflammatory markers, such as progranulin, can cause cumulative damage result from unregulated inflammation that cause delay in cognitive development. Neuroimaging exams have associated larger volumes of gray substance in the temporal poles of middle temporal gyri of right and left to individuals with ASD and language delay. In the hearing field, histopathological studies show that patients of ASD have less neurons in the auditory hindbrain and the surviving neurons are smaller and dysmorphic, that result a hearing dysfunction. In reference, the autistic cerebellum has a reduced number of cells' Purkinje and the presence of ectopic neurons. This way, it is possible to understand the presence of postural instability and gait dysfunction in some patients. Regarding brain connection, it is possible notice, through magnetic resonance imaging, that there is weakened functional connectivity in the areas of the hippocampus, parahippocampal gyrus, superior frontal gyrus, inferior temporal gyrus, precuneus, amygdala and perirhinal cortex, with a predominance of hippocampus and parahippocampal gyrus – which can interfere with changes in social and behavioral patterns. **CONCLUSION:** People with ASD have an uneven cognitive development, where it is possible to observe that changes in developmental milestones from 6 months onwards when skills, especially motor skills, tend to delay. So, attention to children's development is essential for early diagnosis with appropriate treatment in order to promote quality of life.



**105. DEVELOPMENT OF ALCOHOLISM IN POST-BARIATRIC PATIENTS: A LITERATURE REVIEW**

Maria Eduarda Setuba Barros<sup>1</sup>, Stéphanie Cristina Ramos Soares<sup>1</sup>, Nathalia Neres Barros<sup>1</sup>, Vanessa Silva Sousa<sup>1</sup>

<sup>1</sup> Universidade Ceuma

**INTRODUCTION:** Obesity is a chronic disease with increasing rates, which can be defined as the accumulation of adipose tissue and excess food consumption compared to energy consumption for vital activities, leading to metabolic and systemic changes, which makes it a public health problem. The treatment of obesity is multidisciplinary and seeks to modify lifestyle. Bariatric surgery is currently the alternative with the best results in terms of long-term weight loss, improvement or remission of comorbidities and reduced mortality. However, studies point to its correlation with the post-surgical development of addictions to substances, especially alcohol. Therefore, this study aims to discuss the development of alcoholism in patients undergoing bariatric surgery. **METHODS:** A literature review was carried out based on articles from Google Scholar, Scielo and PubMed, published between 2017 and 2023. The descriptors used were obesity, bariatric surgery and alcoholism. The most relevant studies were selected to make up the body of the paper. **RESULTS:** According to the articles analyzed, there is unanimity among them that bariatric surgery patients, especially after Roux-en-Y gastric bypass (RYGB), have a higher risk of developing an alcohol use disorder. This tendency is associated with the anatomical alteration related to the surgical technique, which results in changes in the brain's reward system, predisposing to the disorder. In addition, another factor cited is the transfer of binge eating to alcohol abuse, because after the procedure, the patient looks for alternative ways to meet the need for reward and well-being. In addition, RYGB alters the mechanism of alcohol in the blood, enhancing its absorption and potentially increasing vulnerability to addiction or problematic use. The development of this alcoholism is seen mainly after 24 months post-surgery and continues to increase over the years. **CONCLUSION:** The influence of a number of related factors can lead to a good or poor prognosis in relation to alcohol in patients undergoing bariatric surgery. These factors can range from surgical technique to lack of knowledge about post-surgery and changes in lifestyle habits. It is therefore crucial that these patients are followed up beyond 24 months in order to improve their prognosis and quality of life.

**106. MISINFORMATION ABOUT HPV AS A RISK FACTOR FOR DEVELOPING PENILE CANCER**

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**INTRODUCTION:** Penile cancer (PC) is a neoplastic condition with prevalence in underdeveloped and developing countries. Among the various etiological factors associated with this pathology, the Human Papillomavirus (HPV) infection, especially type 16, stands out as the leading risk factor for the development of penile neoplasms. This study aims to identify, through pre-existing studies, the gap in knowledge regarding the population's understanding of the correlation between penile cancer and HPV. **METHODS:** Integrative literature review based on the bibliographic collection of the last five years from the SciELO, VHL, and PubMed databases. Controlled terms DeCS and MeSH were used, with "Human Papillomavirus Viruses," "Penile Neoplasms," and "Risk Factors" as descriptors. Ten studies that met the eligibility criteria for analysis were selected. **RESULTS:** The evaluation of the evidence revealed that the knowledge about the relationship between HPV infection and PC is substantially lower compared to cervical cancer. Remarkably, the understanding of HPV vaccination and its benefits is more pronounced among women compared to men, possibly due to a greater awareness of health issues in the first group. The level of education is also directly related to expanded access to information about the types of cancer associated with HPV infection. Furthermore, the population living in urban areas tends to have a higher level of knowledge on the subject, in contrast to those who live in rural areas. However, it is important to emphasize that, when it comes to the relationship between PC and HPV, the understanding of this topic is at an equally low level in both population groups. **CONCLUSION:** In this sense, the results suggest a significant lack of information about the association between penile cancer and HPV infection. This knowledge gap contributes to the expansion of risk factors associated with penile neoplasms on a global scale. Therefore, there is a clear need to facilitate and promote the dissemination of information related to public health among the male population, who historically neglected their self-care.

**107. GESTATIONAL DIABETES: AN APPROACH TO MATERNAL-FETAL COMPLICATIONS**

Gabriel Adler Rocha Gomes<sup>1</sup>, Tarcísio Ramos de Oliveira<sup>1</sup>, Layanna Timóteo dos Santos<sup>1</sup>, Carla Bruna Amorim Braga<sup>1</sup>, João Paulo Viana Araújo Segundo<sup>1</sup>, Yngrid Pereira de Santana e Silva<sup>1</sup>.

<sup>1</sup>Faculdade ITPAC

**INTRODUCTION:** Pregnancy imposes a metabolic load on women, i.e., weight gain and insulin resistance. Thus, gestational diabetes mellitus (GDM) is a metabolic complication in pregnant patients and can be defined as impaired glucose intolerance with onset or first recognition in pregnancy. Therefore, this condition generates complications during pregnancy, such as preeclampsia and premature birth. **METHODS:** Systematic review of pregnancy complications resulting from GDM. The works were searched on the PubMed, Scielo and Google Scholar platforms, limited to articles written in English, between 2017 and 2023, following inclusion and exclusion criteria of the works found in the literature. **RESULTS:** The results reveal that hyperglycemia increases the concentrations of fatty acids and amino acids in the maternal blood, which results in the elevated supply of nutrients to the fetus through the placenta. This supply will stimulate fetal pancreatic cells to produce more insulin, a process known as fetal hyperinsulinemia, which leads to the growth of insulin-sensitive tissues, such as the heart, liver, and adipose tissue. In this sense, newborns born to mothers with GDM may have more pronounced body weight and progression of metabolic diseases during childhood, such as dyslipidemia and diabetes. In view of maternal complications, there was a two-fold increased risk of cardiovascular and systemic diseases in women with GDM, in addition to the increased risk of preterm birth, cesarean section and preeclampsia. **CONCLUSION:** Therefore, it is evident that GDM is related to the emergence of adverse repercussions during pregnancy. In addition, medical inferences about future complications for the health of the fetus and the mother indicate that there is a development of metabolic syndromes and physiological dysfunctions during pregnancy, in addition to the risk of progression of cardiovascular and systemic diseases after childbirth. That being the case, it is necessary to emphasize that future studies should be carried out in order to elucidate unclarified points, such as the behavioral and psychosocial changes of pregnant women in the face of GDM, in addition to expanding epidemiological research on the early diagnosis of GDM in asymptomatic conditions.

**108. DIAGNOSIS OF LUNG INJURY ASSOCIATED WITH THE USE OF ELECTRONIC CIGARETTE OR VAPING PRODUCTS**

Biatriz Costa Diniz<sup>1</sup>, Danielle Almeida dos Santos<sup>1</sup>, Layza Hellen Fernandes Menezes<sup>1</sup>, Émerson Botelho Maia<sup>1</sup>, Paulo Victor Nascimento Silva<sup>1</sup>

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**INTRODUCTION:** The use of electronic cigarettes has recently begun and was created to mitigate smoking, but has not achieved proven results. The great attraction of these devices is the diversity of types and flavors on the market. The National School Health Survey revealed that, in 2019, 16,8% of school-age children had already tried vaping. Its composition has vitamin E acetate which works as a diluent for tetrahydrocannabinol oil, identified as one of the main elements causing lung damage associated with the use of electronic cigarettes or vaping products (EVALI), as it was found in a large number of samples from the bronchoalveolar lavage (BAL). The objective of this study is to analyze the diagnosis of lung injury caused by electronic cigarette use. **METHODOLOGY:** Integrative review based on databases: PubMed, LILACS, and MEDLINE. With the descriptors: lung injury, electronic cigarette, and diagnosis. The inclusion criteria were: articles on image diagnosis and clinical signs, in Portuguese and English, indexed in the last 5 years and within the theme. And the exclusion criteria: are duplicate works, literature reviews, and articles that do not fit with the thematic axis, totaling 3 articles for analysis. **RESULTS:** Patients with EVALI present dyspnea, cough, fever, chills, and gastrointestinal symptoms, such as nausea and vomiting. In laboratory tests, there may be increased levels of erythrocyte sedimentation rate and C-reactive protein, in addition to leukocytosis. Patients also have negative viral and bacterial tests. On chest radiography, there are multilobular and multifocal opacities, which have variable distribution and extent. On CT, a diffuse or multifocal ground-glass pattern is seen, which is attributed to organizing pneumonia. Centrilobular thickening and mosaic attenuation are also observed. Such findings resemble eosinophilic pneumonia and hypersensitivity pneumonia. LVB cytology shows macrophages and neutrophils. **CONCLUSION:** It is therefore concluded that the number of diagnoses due to lung injury associated with the use of electronic cigarettes or vaping has increased in recent years, especially among adolescents and young adults. The diagnosis is normally made by exclusion and in most cases, it results from acute respiratory symptoms, with computed tomography being the most effective method for visualizing the damage caused to lung tissue.

**109. DIFFERENTIAL DIAGNOSIS OF BILIARY ATRESIA BASED ON DIAGNOSTIC IMAGING**

João Pedro Oliveira da Silva<sup>1</sup>, Gildean Pereira Costa<sup>1</sup>, Miriam Santos Nunes<sup>1</sup>, João Pedro Lima dos Santos<sup>1</sup>, Débora Cardoso Oliveira<sup>1</sup>

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**INTRODUCTION:** Biliary atresia is a neonatal condition characterized by total obstruction of the intra- and extrahepatic bile ducts, leading to chronic inflammation, fibrosis and cirrhosis in the majority of patients. Physical examination and clinical findings in a child with cholestasis typically include prolonged jaundice, scleral icterus, acholic stools, choluria, and hepatomegaly, and abdominal ultrasound is the first imaging test to be performed. Therefore, this study aims to analyze the main imaging tests that help in the differential diagnosis of biliary atresia in pediatric patients. **METHODS:** A literature review was carried out, selecting articles published in the PubMed database, from August 2018 to August 2023. To this end, studies were included that were in the proposed period, available in English and made available in full. Duplicate articles, case reports, theses, dissertations, reviews and pre-clinical studies were excluded. **RESULTS:** After analysis, 5 articles were selected. It was found that ultrasound features such as triangular cord thickness > 2 mm, gallbladder classification, presence of hilar microcyst, and serum GGT levels were found to be significantly useful for diagnosing biliary atresia. When analyzing the duodenal tube test, the relationship between total bile acid in duodenal fluid and serum GGT was the most specific parameter compared to hepatobiliary scintigraphy to evaluate biliary excretion. The spider-shaped hepatic subcapsular telangiectasia sign was highly accurate, being identified in all patients with biliary atresia. **CONCLUSION:** It was observed that the results were promising regarding the differential diagnosis using imaging methods, with a high success rate in identifying biliary atresia, such as the presence of the intraoperative sign of hepatic subcapsular telangiectasia, duodenal tube test and ultrasound characteristics associated with GGT levels, which facilitates early diagnosis and treatment, enabling a better prognosis for the patient.

**110. DIAGNOSIS AND TREATMENT OF CYSTIC FIBROSIS: A LITERATURE REVIEW**

Emanuele Camile Cardoso Carvalho<sup>1</sup>, Saani Maressa Lima Ribeiro<sup>1</sup>, Samia Raysa Sales Rodrigues<sup>1</sup>, Rayres Campos Ferreira<sup>1</sup>, Lanna Marry Silva de Morais<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>

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**INTRODUCTION:** Cystic Fibrosis (CF), also known as mucoviscidosis, is a severe autosomal recessive genetic disease characterized by the excessive production of thick mucus. The accumulation of mucus promotes the proliferation of microorganisms, initially in the respiratory tract, later in the gastrointestinal tract, and pancreas. More common in childhood, its treatment aims to improve the quality of life and increase the life expectancy of the patient. **METHODS:** A review study was conducted using the Medline, PubMed, Scielo, and Google Scholar databases, the terms were considered: cystic fibrosis, diagnosis, under 10 years old, in Portuguese, English, and Spanish, between the years 2019 and 2023. Studies outside this period and those that did not address the review objectives were excluded. The research aimed to identify diagnostic criteria in children under 10 years old and available treatments. **RESULTS:** Throughout the historical process, relevant methods have been developed, with the early diagnosis being crucial for the survival of patients. The sweat test, with electrolyte measurement, represents the gold standard, followed by prenatal screening, neonatal screening, DNA, and confirmatory laboratory tests, all of which present complexities and discussions in the literature. Symptomatology depends on the patient's immune status and the progression of the disease, requiring a careful medical history to guide test requests and rule out other diseases. Treatment encompasses various modalities, including nutritional therapy, antibiotics, and mucolytic agents for airway clearance, inflammation reduction, and infection control. Respiratory physiotherapy, aiding in expectoration, has a positive impact on the quality of life of individuals with CF. **CONCLUSION:** Given the multisystemic complications caused by CF, there is a need for understanding different diagnostic methods and challenges, as well as advantages in individualized treatment, aiming for a faster diagnosis and greater effectiveness in essential care to increase the life expectancy of individuals with the disease.

**111. DIAGNOSIS AND TREATMENT IN VULVOVAGINAL CANDIDIASIS: A LITERATURE REVIEW**

Victória Valentina Ferreira Costa<sup>1</sup>, Antônio Rodrigo Sousa Lima<sup>1</sup>, Jhone Bruno de Oliveira Idelfonso<sup>1</sup>, Francielle Macedo Cataldo<sup>1</sup>  
<sup>1</sup>Faculdade Pitágoras de Bacabal

**INTRODUCTION:** Vulvovaginal candidiasis (VVC) is a gynecological fungal infection with considerable prevalence in the female population, with reports of over 2 million cases per year in Brazil. *Candida albicans* is a microorganism responsible for approximately 90% of fungal infections, causing an imbalance in vaginal flora and consequently the presence of thick white discharge accompanied by inflammation. Although this condition is not considered serious, it is important to note that its symptoms can be extremely uncomfortable and significantly impact the quality of life of affected women. The present study aims to describe, through a literature review, the implications of VVC in women's lives, its diagnosis, and treatment.

**METHODS:** This is a literature review in which articles were sought in the Google Scholar database, using the descriptor "Vulvovaginal Candidiasis." Inclusion criteria included original articles addressing data related to vulvovaginal candidiasis between the years 2019 and 2023. Exclusion criteria involved articles discussing vulvovaginal candidiasis during pregnancy and adolescence. Additionally, articles that, upon reading their abstracts, did not address the specified theme were excluded. **RESULTS:** The main symptoms of VVC include the presence of thick white vaginal discharge, itching, and irritation in the vaginal and vulvar region. Some women may also experience pain during sexual intercourse and pain or burning during urination. The diagnosis of VVC is based on clinical symptom evaluation, as well as laboratory tests such as cultures, which can confirm the presence of the *Candida* fungus in the vaginal region. Antifungals, such as miconazole and fluconazole, are the most commonly prescribed medications for the treatment of the condition. On the other hand, a hindrance to proper therapy is the self-diagnosis that women often engage in leading to detrimental consequences such as fungal resistance to medications. **CONCLUSION:** Based on the conducted study, Vulvovaginal Candidiasis is a condition that can present symptoms or be asymptomatic. A notable drawback identified is the lack of consensus among the studied authors regarding predisposing factors for VVC. Positive aspects include the evolving presentations of various diagnostic and treatment approaches for VVC.

**112. FETAL DIAGNOSIS OF CONGENITAL HEART DISEASES: A LITERATURE REVIEW**

Fernanda Karolynne Sousa Coimbra<sup>1</sup>, Camila de Carvalho Vieira<sup>1</sup>, Glauber Miranda Silva Filho<sup>1</sup>, Andreia Sena Sousa Aguiar<sup>1</sup>, Welson Sousa Lopes<sup>1</sup>, Matheus da Silva Moraes<sup>1</sup>, Paulo Victor de Aguiar Ribeiro<sup>1</sup>  
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**INTRODUCTION:** Congenital heart disease in infancy is defined as any structural malformation of the heart. Various environmental, genetic and pathological factors are involved in the incidence of these abnormalities, especially during the period of heart formation, up to the eighth week. Despite the possibility of detection in the intrauterine period using methods such as morphological ultrasound and fetal echocardiography, many diagnoses go unnoticed or are not made, leading to negligence in the treatment of heart defects. These disorders are thus related to high morbidity and mortality during childhood. In this context, this study aims to assess the impact of diagnostic methods for congenital heart disease on preventing infant mortality. **METHOD:** This is a literature review, constructed through searches in the following databases: Scientific Electronic Library Online (SciELO), PubMed, and Google Scholar, using the descriptors "heart diseases," "congenital," and "diagnosis." The inclusion criteria were publications conducted between 2019 and 2023, including original articles and review studies on the proposed topic, in Portuguese and English languages, with full-text availability and all keywords present in the titles of the publications. Exclusion criteria were duplicate publications and those that do not fit within the defined theme.

**RESULTS:** It was observed that the most frequently cited tests for the early diagnosis of fetal congenital heart disease are fetal echocardiography and echocardiography, both of which were highlighted as having the highest accuracy in four of the seven studies analyzed. In addition, pulse oximetry was highlighted as part of the list of neonatal tests and was mentioned in three of the seven studies. Finally, physical examination and complementary tests such as morphological ultrasound, electrocardiogram (ECG), systemic ultrasound, karyotyping, chromosomal microarray analysis (CMA), nuchal translucency, prenatal cytogenetic diagnosis, dried blood samples, magnetic resonance imaging and computed tomography were also highlighted. **CONCLUSION:** In light of this, it is clear that tests such as echocardiography and fetal echocardiography are essential for diagnosing congenital heart disease and, consequently, for early care of the baby to prevent possible complications, thus improving quality of life. However, it was not possible to assertively infer that such early diagnosis reduces infant mortality.

**113. EARLY DIAGNOSIS OF RETINOBLASTOMA IN PEDIATRIC PATIENTS: A NARRATIVE REVIEW**

Ana Mariza dos Santos Gonçalves<sup>1</sup>, Stephanie Freire Soares De Farias<sup>1</sup>, Sarah Gonçalves Torres De Sá<sup>1</sup>, Katarina Costa Silva<sup>1</sup>, Safira Pontes De Almeida Costa<sup>1</sup>, Graziela Gama Da Conceição<sup>1</sup>, Laina Luiza Pitombeira Rocha<sup>1</sup>.

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Retinoblastoma (RB) is a rare intraocular tumor with high mortality rates, making it the most prevalent type of cancer in childhood. Symptoms are variable depending on size and location. In this context, guardians usually notice a different shine in the child's eyes and seek out a doctor, who is essential for early diagnosis, as they must recognize the first signs of eye disease. Given this, it is believed that developing countries have higher rates of RB, due to late diagnosis, as a result of doctors' unpreparedness in carrying out clinical ophthalmological examinations. Therefore, the present study aims to collect information about methods for early diagnosis of RB in children. This is a narrative review that used the descriptors "Child", "Early Detection of Cancer" and "Retinoblastoma" in two databases (Scielo and Biblioteca Virtual em Saúde Brasil) in October 2023. Written articles were included in Portuguese or not, published between 2018 and 2023. In total, 22 articles were found, of which 6 were in line with the objective of this work. The articles analyzed indicated that the main signs found in RB are leukocoria and strabismus. However, these signs may be absent, which contributes to late diagnosis as a result of not carrying out a complete physical examination, given the lack of medical suspicion. Furthermore, the studies mentioned the Red Reflex test, the Pupillary Reflex test and Fundoscopy as the main clinical exams to be carried out to detect the tumor. With regard to imaging tests such as Ultrasonography, Computed Tomography (CT) and Magnetic Resonance Imaging, they have complementary value to diagnosis, with CT being the most important. Retinoblastoma is a serious neoplasm that may not be diagnosed due to the lack of a complete and thorough evaluation. Therefore, it is important that professionals are trained to carry out screening tests, in order to be able to suspect the disease and subsequently refer it to a specialist. Furthermore, it is necessary that all children, immediately after birth, undergo the "eye test" and that every year of early childhood, the pediatrician carries out a complete ophthalmological examination. Thus, it is possible to make an early diagnosis and promote a better prognosis for patients.

**114. FEMALE SEXUAL DYSFUNCTION INDUCED BY SELECTIVE SEROTONIN REUPTAKE INHIBITORS**

Pâmella Maria Ferreira Cantanhêde<sup>1</sup>, Giovana Ferreira Crispim<sup>1</sup>, Zamorano Galvão Moraes<sup>1</sup>, Erick Fernando Souza Rolins<sup>1</sup>, Marisa Lacerda Guida de Brito<sup>1</sup>, Erielton Sales da Costa<sup>1</sup>

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**INTRODUCTION:** A functioning sex life is important for maintaining physical and emotional health, as any problem can affect well-being. Thus, much is discussed about male sexual dysfunction and ends up neglecting female sexual dysfunction, which affects around 40 women, and can manifest itself in different ways, such as decreased sexual desire, impaired arousal, inability to reach orgasm or pain during sexual intercourse. Therefore, the etiology of this dysfunction is generally multifactorial and includes psychological problems, such as depression and anxiety, and the use of medication, especially selective serotonin reuptake inhibitors (SSRIs), first-choice medications in many psychiatric disorders and are associated with different aspects of female sexual dysfunction (FSD). **METHODS:** This is a literature review, in which the Google Scholar and Pubmed portals were searched, using as eligibility criteria original articles published from 2019 onwards, without language restrictions, and which specifically presented the topic. The descriptors used were: "sexual dysfunction in females"; "selective serotonin reuptake inhibitors"; "depression". **RESULTS:** FSD can be caused by multiple factors, psychological, medication, iatrogenic or surgical, with patients with depression being affected doubly by the disease and the medication. Therefore, it is clear that DSF is a side effect that affects 30 to 65 people, being more common with the use of SSRIs, reaching up to 80% of patients. This happens because SSRIs negatively regulate and desensitize 5HT1A receptors, involved in the regulation of sexual desire, and act to activate 5HT2A and 5HT2C receptors, which indirectly alter neurotransmitters that are associated with sexual functioning. Because of this, patients who use SSRIs experience reduced libido, anorgasmia, poor arousal and inadequate lubrication. In these cases, it is recommended to wait 2 to 8 weeks for a spontaneous remission, if this does not happen, check whether the patient is on the minimum dose, if so, change to another antidepressant, such as bupropion, a noradrenaline-dopamine reuptake inhibitor, or mirtazapine, tricyclic antidepressant. **CONCLUSION:** Therefore, the importance of discussing DSF and how it affects female well-being is noted, in addition to understanding how SSRI treatment can cause DSF.

115. **GENDER DISPARITIES IN STROKE INCIDENCE AND MORTALITY IN MARANHÃO**

Elizabet Taylor Pimenta Weba<sup>1</sup>, Nicolas Louzada Borchart Gomes<sup>2</sup>, Benjamin Alves Pessoa Neto<sup>2</sup>, Fernando Viana de Azevedo Naves<sup>2</sup>, Marcos Vinicius da Costa Vilela<sup>2</sup>, Iraciane Rodrigues Nascimento Oliveira<sup>2</sup>

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**INTRODUCTION:** Stroke stands as the second leading cause of global mortality and is the primary cause of death and disability in Brazil. Clinically characterized by the interruption of blood flow in a specific region of the brain resulting in local cell suffering and death due to reduced levels of nutrients and oxygen. This context underscores the critical relevance of understanding the pathophysiology and clinical implications of stroke, considering its significant impact on global and local public health. In this regard, the present study aims to analyze the epidemiological profile of stroke incidence and mortality in Maranhão, describing gender disparities associated with the disease. **METHODS:** This is an ecological, cross-sectional analysis with a quantitative approach, using data from the Department of Health Informatics of the Unified Health System (DATASUS). Data were collected regarding the number of hospitalizations, gender, age group, deaths, and mortality rate. Statistical analysis was performed using SPSS 25.0 software for Windows, with Kendall's Tau-b and chi-square tests, adopting a significance level of 5%. **RESULTS:** During the period, 51,380 stroke hospitalizations were reported, with an average of 5,138 hospitalizations per year, incidence was slightly higher in males (52.5%). The age group between 50-79 years was the most frequent (63.7%), with males having a slightly higher prevalence (52.6%) within the total. The total mortality was 7,429 individuals. Regarding the mortality rate, between genders, similar rates were observed among men and women, 12.7% and 13.5% respectively. The chi-square test of independence showed an association between gender and patient survival status ( $p = 0.017$ ). **CONCLUSION:** Based on the epidemiological analysis, it is concluded that stroke has significant implications in the population's life, mainly in individuals over 50 years old and with a slight emphasis on the male population. Thus, preventive and intervention measures are necessary to reduce the morbidity and mortality associated with stroke.

116. **ACUTE AORTIC DISSECTION AS A DIFFERENTIAL DIAGNOSIS OF CHEST PAIN**

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**INTRODUCTION:** Aortic dissection is a critical and potentially fatal medical condition characterized by the separation of the layers of the arterial wall, which can result in internal bleeding, heart failure or even sudden death. The aim of this study was therefore to analyze scientific literature on the subject of acute aortic dissection and its relationship with the differential diagnosis of chest pain. **METHODOLOGY:** This is a narrative literature review study carried out to analyze scientific productions on the subject of acute aortic dissection as a differential diagnosis of chest pain. Articles were selected from the databases Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed and Scientific Electronic Library Online (SciELO) for the review and selection of articles. **RESULTS:** The main symptom of Acute Aortic Dissection (AAD) is intense chest pain with sudden onset, which can radiate to other areas and may be accompanied by dyspnea, dizziness and paralysis, or even be completely painless. Due to the varied clinical picture, the diagnosis of AAD is often confused with Acute Coronary Syndrome (ACS), which is estimated to account for less than a fifth of chest pain cases. In order to make this diagnosis, more characteristic signs and symptoms of AAD can be used, such as the involvement of poorly controlled hypertension, the presence of pulse and systemic blood pressure asymmetry, the presence of an aortic regurgitation murmur and radiological signs such as an abnormal aortic contour and mediastinal enlargement. Cases of AAD can also show ST-segment elevation on the electrocardiogram, and should be excluded from the differential diagnosis before using thrombolytics. Furthermore, it is recommended that, in the event of non-specific symptoms that may be of vascular origin, AAD should always be considered as a differential diagnosis, especially if chest pain is present. Once AAD has been considered, the diagnosis should be confirmed by imaging tests, such as angiography or echocardiography, which will lead to a more precise approach and efficient treatment. **CONCLUSION:** Acute aortic dissection is one of the emergency causes of chest pain. This differential diagnosis should be considered and investigated promptly in the clinical evaluation, in order to avoid sudden death among patients presenting with chest pain.

**117. MENSTRUAL DISORDERS CAUSED BY STRESS IN THE COVID-19 ERA**Ana Clara Silva de Alencar<sup>1</sup>, Ana Clara Mota Gonçalves<sup>1</sup>, Giulia Germano de Azevedo Silva<sup>1</sup><sup>1</sup>Universidade Ceuma

**INTRODUCTION:** Stress consists of the body's physiological response to tension events, promoting the release of chemical mediators. By activating the Hypothalamus-Pituitary-Adrenal axis, stressful events end up producing cortisol, a steroid that suppresses GnRH, a hormone that stimulates the secretion of gonadotropins essential for the proper functioning of the menstrual cycle: FSH and LH. Amid the Covid-19 pandemic, the population found itself more exposed to stressful episodes, be they the loss of family and friends, financial crisis or the fear of becoming another statistic of the disease. The impacts of this atypical moment have affected female menstrual flow and frequency. Therefore, the present study aims to carry out a literature review to evaluate the impacts of stress caused by the Covid-19 pandemic on the menstrual cycle. **METHOD:** This was a review of the impacts of stress on women's menstrual cycles in times of pandemic, carried out in the SciELO, Google Scholar and PubMed databases. **RESULTS:** It was noted that many studies report the impacts of stress on the menstrual cycle, but few findings have linked menstrual disorders due to stress to the pandemic. However, the bibliographic survey showed that the pandemic brought with it not only the adoption of preventive measures against coronavirus contamination, but also a series of stressful events responsible for the secretion of cortisol, a chemical mediator that acts by inhibiting the release of gonadotropins. Menstrual regularity depends on the normal release of FSH and LH, and therefore, dysfunctions in GnRH secretion influence bleeding patterns, leading to cycles of amenorrhea, hypomenorrhea or menorrhagia. **CONCLUSION:** Therefore, the study demonstrated that the stress caused by the Covid-19 pandemic could indeed be closely related to menstrual disorders at the time, since by stimulating the release of cortisol, stressful events end up suppressing the secretion of GnRH and, consequently, interfering with the menstrual episode.

**118. DOPAMINE AND BRAIN HYPERCONNECTIVITY: A NEUROSCIENTIFIC PERSPECTIVE**Paulo Vitor Loiola Braide<sup>1</sup>, Túlio Martins Rezende<sup>1</sup>, Mellanie Demelo Contreras<sup>1</sup>, Maria Eduarda Longo Sousa<sup>1</sup>, Victor de Souza Calixto Neves da Silveira<sup>2</sup><sup>1</sup>Centro Universitário Dom Bosco<sup>2</sup>Universidade CEUMA

**INTRODUCTION:** Dopamine, often referred to as the "reward neurotransmitter," plays a fundamental role in the functioning of the nervous system. It has a diverse and multifaceted role, being intrinsically involved in motivation, learning, mood modulation, and cognition. Brain hyperconnectivity on social networks is a phenomenon that has become increasingly prominent in the digital age. It refers to the state in which social media users are constantly connected, interacting, sharing information, and consuming online content incessantly. With that said, the present study aims to correlate how excessive use of social networks impacts the dopaminergic reward system. **METHODS:** This study is a literature review. Articles were chosen through searches on the "PubMed" and "Google Scholar" platforms using the descriptors: "Dopamine", "Reward System", "Social Media". Inclusion criteria were studies published in the last 5 years, written in English and/or Portuguese. Articles that exceeded the publication date, did not correspond to the study goals, and duplicates were excluded, resulting in 8 publications that addressed the theme of this review. **RESULTS:** According to the selected studies, excessive use of social networks leads to constant activation of the reward system, especially when users receive likes, compliments, or watch short-duration videos, thereby generating an exacerbated dopaminergic discharge. However, despite initially feeling gratified, hyperconnectivity causes receptors to become less sensitive to the neurotransmitter. As a consequence, individuals will seek more and more stimuli to satisfy the addicted reward circuit, increasing time spent connected to screens. This situation brings about psychosocial impairments, as "offline" activities, such as walking on the beach or having a family dinner, do not provide the same level of satisfaction to a reward system accustomed to instant pleasures and large doses on the internet, even affecting basic daily tasks in more severe cases. **CONCLUSION:** In light of the foregoing, it is evident that hyperconnectivity on social networks impacts quality of life, given the dysregulation of the reward circuit associated with excessive dopaminergic release, affecting the mental health of users.

**119. NEUROPATHIC PAIN IN PATIENTS WITH SICKLE CELL ANEMIA: A LITERATURE REVIEW**

Ana Carolina Silva Rocha<sup>1</sup>, Rayres Campos Ferreira<sup>1</sup>, Lyanne Silva Oliveira<sup>1</sup>, Pedro Igor de Sousa Rios<sup>1</sup>, Camila De Carvalho Vieira<sup>1</sup> Thiago Alves Rodrigues<sup>1</sup>  
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**INTRODUCTION:** Neuropathic pain represents a painful chronic complication that may occur in individuals suffering from sickle cell anemia, a genetic disorder of the blood system that gives red blood cells a sickle shape. Thus, the aim of this study is to analyze and understand the prevalence and characteristics of neuropathic pain in patients with this pathology. **METHODOLOGY:** This study is an integrative and descriptive literature review conducted in September 2023. Data were collected from SciELO, PUBMED, and LILACS databases, using Portuguese and English Health Sciences Descriptors (DeCS/MeSH): "Neuropathic pain," "Sickle cell," "Anemia," with the boolean operator AND. Inclusion criteria were full articles published between 2018 and 2023 in Portuguese or English, excluding duplicates, grey literature, and articles outside the specified timeframe. **RESULTS:** From the search, 29 studies were found; of these, 9 fit the proposed scope. Based on these studies, neuropathic pain was described as a debilitating and underdiagnosed complication in sickle cell anemia (SCA) patients, directly impacting their treatment. Several studies agreed on a higher prevalence of neuropathic pain in SCA in female and African descent patients. Regarding pain, predominantly moderate to very severe intensity was reported, with symptoms described using various unique descriptors (burning, heat, electric shocks, shots, stings, pins, needles, numbness, and tingling). Physical examinations revealed positive sensory signs (allodynia, hyperalgesia) and negative signs (partial symptoms or complete sensory loss). In terms of quality of life, although neuropathic pain (13.6% to 40%) is less prevalent than nociceptive pain, its influence is more significant. Additionally, all studies affirm that neuropathic pain affects all domains of quality of life, assessed by scales that include sensory, affective, evaluative, and temporal descriptors. **CONCLUSION:** Neuropathic pain is an under-evaluated and debilitating complication in sickle cell patients, significantly impacting their treatment and quality of life. Furthermore, the pain is characterized by moderate to severe intensity and a variety of sensory descriptors. These findings reinforce the importance of early diagnosis and proper management of neuropathic pain in SCA patients.

**120. DUAL ANTIPLATELET AGGREGATION POST CORONARY ANGIOPLASTY: AN ANALYSIS OF THE EVIDENCE**

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**INTRODUCTION:** Coronary angioplasty is a procedure widely used in the treatment of coronary artery disease. After performing angioplasty, prevention of thrombotic complications becomes imperative to ensure the lasting success of the procedure. Considering that dual antiplatelet therapy (DAPT) with acetylsalicylic acid (ASA) and P2Y12 inhibitors plays a central role in preventing these adverse events, this review therefore seeks to gather and analyze the evidence available. **METHODS:** Bibliographic review was carried out using the PubMed database. The descriptors were "dual antiplatelet therapy", "duration dual antiplatelet therapy" and "dual antiplatelet coronary therapy". Included articles with the described theme and published between 2018 and 2023. Exclusion of duplicate works or those that addressed the theme indirectly. **RESULTS:** DAPT with aspirin (ASA) and clopidogrel for 6 to 12 months and optional chronic use of ASA has established itself as a standard approach in the treatment of post-angioplasty patients. However, the search for an ideal balance between the risk of bleeding and the risk of thrombotic events has led to the development and testing of new strategies. Recent trials have shown that monotherapy with a P2Y12 inhibitor or AAS after 1 to 3 months of DAPT showed no benefit, and there was even an increase in ischemic events in monotherapy with clopidogrel after 1 month of DAPT. However, satisfactory results were identified in patients at high risk of bleeding who underwent DAPT for 1 to 3 months, compared to DAPT for 6 months, presenting less risk of bleeding and without increasing ischemic risk, especially with the use of ticagrelor, both in DAPT, as well as post-DAPT monotherapy. Furthermore, the chronic use of a P2Y12 inhibitor was superior to the chronic use of ASA. Currently, new DAPT de-escalation strategies are being tested, some even initially showing favorable results. **CONCLUSION:** DAPT remains a cornerstone of treatment after coronary angioplasty. As new therapeutic modalities and drugs are developed and tested in clinical studies, alternatives with superior benefits and improved safety profiles may emerge. Regularly consulting updated clinical guidelines is key to making informed, evidence-based treatment decisions.



**121. EFFECTS OF AUTOIMMUNE GASTRITIS ON THE GASTROINTESTINAL TRACT: AN INTEGRATIVE REVIEW**

Ana Luiza Espínola Lobo<sup>1</sup>, Ana Beatriz Oliveira Reis<sup>1</sup>, Gabriel Gomes Nascimento Campos<sup>1</sup>, Louisa Ferreira Carvalho<sup>1</sup>, Rafaela Dias de Medeiros<sup>1</sup>, Wellyson da Cunha Araújo Firmo<sup>1</sup>.

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**INTRODUCTION:** Autoimmune gastritis (AIG) is a chronic inflammatory condition that affects the gastrointestinal tract (GIT), especially the mucosa of the gastric body and fundus. This inflammation occurs due to genetic and/or environmental factors and is the result of self-destruction of the stomach's parietal cells by the immune system or by infection secondary to bacteria, leading to a decrease or loss of gastric juice production. Clinically, the symptoms of gastritis range from gastrointestinal to neurological problems, as well as being related to other autoimmune diseases, such as chronic thyroiditis and type 1 diabetes mellitus. Given this context, the aim of this study was to address the aspects surrounding AIG, obtaining an overview of this disorder and its consequences for the GIT. **METHODS:** This is an integrative literature review whose information was collected through the PubMed platform, using the descriptors "gastritis," "autoimmune," and "gastrointestinal." 95 articles published between 2019 and 2023 in English were found, of which only 38 were selected because they covered the topic in question. **RESULTS:** The studies show that AIG has not only gastroenterological effects but also hematological effects (iron deficiency anemia and pernicious anemia) and neurological effects (neuroendocrine tumors). However, the most commonly reported are those that affect the GIT, the main ones being dyspepsia, heartburn, regurgitation, abdominal distension, and epigastric pain, although some authors state that the disease often remains asymptomatic in the early stages. Other studies show that patients severely affected by AIG, due to the atrophy of the stomach mucosa, become more susceptible to the appearance of precancerous cells. These, in the long term, can lead to gastric tumors, such as adenocarcinomas and esophageal, gastric, or intestinal carcinomas, and lymphomas in the gastric area. Finally, the selected studies also show the recurrence of anemia in those affected, since the absorption of iron and vitamin B12 is compromised by the loss or reduction of pepsin and intrinsic factor due to the destruction of the parietal cells. **CONCLUSION:** AIG is a disorder caused by the body's own defense mechanisms, causing damage, especially to the organs of the GIT. Therefore, early diagnosis is essential to prevent anemia and neoplasms from developing, thus avoiding a systemic condition.

**122. EFFECTS OF EARLY MENARCHE: A LITERATURE REVIEW**

Jorge Fernando Lopes da Cunha<sup>1</sup>, Murilo Freitas e Silva Filho<sup>1</sup>, Maria Fernanda Muniz da Costa<sup>1</sup>, Mateus Oliveira Viana<sup>1</sup>, Fernanda da Silva Feitosa<sup>1</sup>, Vanda Maria Ferreira Simões<sup>1</sup>.

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**INTRODUCTION:** Menarche is the first menstruation and represents an important marker of pubertal and biopsychosocial development that is still associated with many taboos. In Brazil, 75% of girls experienced menarche by the age of 12, with the average age of occurrence being 11.71 years, without major differences between macro-regions. However, an increase in the prevalence of early menarche (EM) has been observed in several countries, reaching 24.9% in Portugal, 34.6% in South Korea, and similar data in North America and Europe. EM is considered a public health problem, given possible negative effects throughout life. Considering that, the aim of this study was to identify the pathological effects of early menarche. **METHODS:** The systematic review study was carried out based on a database survey on the CAPES CAFE portal, using the descriptors: menarche and precocious puberty. Nine papers published between 2019 and 2022, in Portuguese and English, were selected and read in their entirety for data collection. **RESULTS:** In childhood and adolescence, EM is related to a higher risk of sexual abuse and early sexual initiation. In adulthood, early menarche was associated with cardiometabolic outcomes, such as type 2 diabetes and hypertension. Furthermore, it is linked to bone and joint dysfunctions such as osteoporosis, osteoarthritis and arthrosis. It is known that there is a relationship between EM and the development of psychiatric disorders and sleep disorders, as well as the onset of ischemic heart disease and greater mortality due to all factors. From a social point of view, EM also indicates a greater incidence of gynecological infections, since the dysfunction is also affected by the globally established menstrual poverty. Treatment for EM, in addition to changing the child's lifestyle habits and treating the causes of hormonal changes, sometimes uses drugs that block the pubertal axis and monitoring should begin as soon as menarche or other signs of early pubertal development occur, aiming to preserve development potential and reduce psychosocial difficulties with puberty. **CONCLUSION:** Early menarche is an important event for public health that brings with it the manifestation of various dysfunctions throughout life, whose treatment is essential to maintain quality of life and development in the short, medium and long term.

123. **EFFECTIVENESS OF CARDIAC RESYNCHRONIZATION THERAPY IN PATIENTS WITH HEART FAILURE**

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**INTRODUCTION:** Heart failure (HF) is a chronic pathology that presents high morbidity and mortality rates in Brazil. Among the clinical repercussions of this disease, intraventricular conduction disorders are commonly reported due to changes in myocardial functional efficiency. Cardiac resynchronization therapy (CRT) emerges as an intervention that consists of stimulating the left ventricle through the coronary sinus and is used as an adjuvant therapy for the treatment of HF and associated conduction disorders in patients refractory to optimized drug therapy. The present study aims to evaluate the effectiveness of CRT in patients with heart failure.

**METHODS:** This is a integrative review of qualitative literature constructed from articles found in the PUBMED and SCIELO databases. The research was carried out using the Health Sciences Descriptors (DeCS/MeSH): "Heart Failure", "Cardiac Resynchronization Therapy" associated with Boolean operators. 105 studies were identified that met the inclusion criteria: articles with full text, available for free access, published between the years 2018 and 2023. 4 articles were selected from among these that suited the objectives of this study. **RESULTS:** Several studies reveal that the use of CRT is an effective option for patients with advanced HF and conditions refractory to drug therapy, with improved quality of life, symptoms and cardiac remodeling. However, around 30% of patients undergoing this intervention do not show improvement, therefore there is a need to use stratification strategies to identify patients who can benefit most from the procedure and new techniques for performing CRT, aiming to increase its efficiency. Recent studies suggest that CRT guided by myocardial scintigraphy and phase analysis may be a viable approach to improve the effectiveness of therapy by enabling more precise placement of the electrodes used in treatment. Furthermore, cardiopulmonary exercise test parameters may be useful in evaluating the effectiveness of CRT in patients with HF. **CONCLUSION:** Therefore, CRT is a viable alternative for the treatment of HF refractory to drug therapy. However, due to its high failure rate, new techniques for implementing the therapy can be used to increase its efficiency and benefits for the patient.

124. **THE EFFICACY OF AUTOTAXIN INHIBITORS IN IDIOPATHIC PULMONARY FIBROSIS: A SYSTEMATIC REVIEW**

Larissa de Sousa Miranda<sup>1</sup>, Larissa Saboia de Freitas Diógenes<sup>1</sup>, Wellyson da Cunha Araújo Firmo<sup>1</sup>

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**INTRODUCTION:** Idiopathic pulmonary fibrosis (IPF) is a chronic and progressive lung disease characterized by the scarring and thickening of pulmonary tissue. Novel autotaxin inhibitors (AIs) such as Ziritaxestat, GLPG1690, and BMS-986020 present alternative therapeutic approaches. In light of this context, this study aimed to assess the efficacy of AIs in IPF. **METHODS:** This is a literature review study conducted by searching the PubMed, EMBASE, Cochrane Library, and ClinicalTrials.gov databases. Articles from randomized clinical trials comparing AIs with placebos were selected. Out of 202 related studies, four were chosen after screening and deduplication. Primary outcomes evaluated included the rate of forced vital capacity (FVC) decline, all-cause mortality, and the six-minute walk test (6MWT). **RESULTS:** The four clinical trials encompassed 1,472 patients, of whom 498 (33.8%) received 600mg of AI once daily. The distribution was as follows: 48 from the FLORA trial, 174 from ISABELA I, 259 from ISABELA 2, and 17 from PALMER. The mean ages of patients were 70, 69.4, 69.2, and 67, respectively. Among the 498 AI recipients, 75.70% were white, 79.12% were male, and 20.88% were female. The mean FVC in the ISABELA 1 study was 2.94L, in ISABELA 2 it was 2.77L, in FLORA it was 2.44L, and in PALMER it was 2.8L. However, when comparing the medicated group with the placebo group, no significant difference in the annual FVC decline rate was observed. In the 6MWT, healthy individuals aged 55 to 75 cover an average distance of 659m, whereas participants in ISABELA 1 and 2 achieved averages of 416.3m and 408.3m, respectively. Regarding all-cause mortality, ISABELA 1 showed a 14.00% death event rate in the medicated group compared to 11.00% in the placebo group, while ISABELA 2 reported values of 24.00% and 12.00%, respectively. FLORA had no death events, whereas PALMER had 2 deaths in the medicated group versus 1 in the placebo group. **CONCLUSION:** In patients with a prior indication for anti-autotaxin therapy, AIs do not significantly reduce the rate of FVC decline compared to placebo. Additionally, there is no significant difference in individual 6MWT outcomes or improvement in all-cause mortality. However, further studies are warranted.

125. **EPIDEMIOLOGY OF ENDOMETRIOSIS IN THE REGIONS OF BRAZIL: AN ANALYSIS FROM 2018 TO 2022**Brunna Araújo dos Santos<sup>1</sup>, Pedro Henrique Delfim Pessoa<sup>1</sup>, Caio de Brito Matos<sup>1</sup>, Adeany Yasmim Morgado Reis<sup>1</sup>, Lucas Guilherme Macedo Guterres<sup>1</sup>, Marcelle Teixeira e Silva<sup>1</sup><sup>1</sup>Universidade Federal do Maranhão - UFMA Campus Pinheiro

**INTRODUCTION:** Endometriosis is a condition in which the cells of the tissue lining the uterus (endometrium) undergo a change in their normal functioning and, instead of being expelled from the body during the menstrual period, they move in the opposite direction and fall into the ovaries or in the abdominal cavity, when they reproduce and bleed again. When this disease originates in the ovaries, it can cause the appearance of a cyst called endometrioma, filled with brown blood, which mainly causes pelvic pain, colic and female infertility. Therefore, the present study aims to analyze data relating to endometriosis from 2018 to 2022. **METHODOLOGY:** This is a descriptive cross-sectional study, with a quantitative approach, based on data collected from the SUS Hospital Information System (SIH /SUS), available on the platform of the Department of Information Technology of the Unified Health System (DATASUS). The variables number of hospitalizations, deaths and mortality rate were selected, related to the regions of Brazil during the period from 2018 to 2022. **RESULTS:** In the period analyzed, 65,033 hospitalizations were recorded throughout the national territory, with emphasis on the Southeast region (SE) and North (N), which represent the highest and lowest number of hospitalizations (28,050 and 4,027), respectively. The total number of deaths in the interval described was 98, with SE being the region with the highest number of deaths (49) and N being the region with the lowest number (7), in addition, the Northeast (NE), South (S) and Central-West (CO) recorded 21, 12 and 9 deaths, in that order. The CO region has a mortality rate of 0.19, being the highest in the period described, while the S region shows the lowest mortality rate (0.11), while the NE, N and SE regions have recorded mortality rates of 0.12, 0.17 and 0.17, in their due order. **CONCLUSION:** Given the above, it is clear that endometriosis, although it is a benign pathology, when not diagnosed and treated, can lead to female deaths, as previously described in the results. Furthermore, the data demonstrate that both the number of hospitalizations and the number of deaths corroborate the appropriate demographic densities of each region, but the mortality rate does not follow this population distribution. Therefore, it is important to screen for this condition and subsequently treat it, in order to reduce the number of complications and deaths.

126. **IMPACT OF SARCOPENIA ON AGING AND HEALTH RISKS: A LITERATURE REVIEW**Yakya Henrique de Sousa Ferreira<sup>1</sup>, Camila Mesquita Lima<sup>1</sup>, Paula Azevedo Simões<sup>1</sup>, Raíssa Rodrigues Fernandes<sup>1</sup>, Suzana Letícia Ferreira Nunes<sup>1</sup>, Thays dos Santos Moita<sup>1</sup>, Renatha de Sena Rosa Lago de Brito<sup>1</sup><sup>1</sup> Universidade CEUMA

**INTRODUCTION:** Sarcopenia is a syndrome described by progressive and generalized loss of muscle mass and function with risk of adverse reactions such as physical disability, loss of quality of life and death. Highly prevalent in individuals over the age of 60, this condition interferes with balance and gait, thus increasing the risk of falls and fractures. Thus, preventive measures can be the key to reducing frailty, such as a healthy diet and regular physical exercise. Such research aims to address the impact of sarcopenia on aging and health risks. **METHODS:** Conducted on the PubMed platform, between 2019 and 2023, the research used descriptors in English, such as "Sarcopenia", "Negative Results", "Aging" and "Health Risk". Exclusion criteria were applied, excluding non-epidemiological studies with no direct relationship with the research objective. **RESULTS:** A total of 49 articles were located in the initial search, and 6 studies were selected for analysis after applying the exclusion criteria. The analyzed articles addressed aspects related to the impact of sarcopenia and the risks it can bring to the health of the elderly and demonstrated that its cause is multifactorial and affects quality of life. Thus, in the studies, some factors included age, low nutritional status, anorexia, sedentary lifestyle, serum vitamin D levels, hospitalization and chronic diseases, as potentiators for the onset of this condition. In addition, other studies have shown that loneliness and environment, loss of autonomy, and financial situation are also determining factors for sarcopenia. Thus, in addition to the early detection of sarcopenia, it is necessary to promote the practice of resistance physical activity and nutritional diet to ensure a better quality of life for the elderly. **CONCLUSION:** Finally, the analysis emphasizes that although sarcopenia presents several risks to the health of the elderly, there are several aspects that can prevent this condition. Among them, maintaining a healthy lifestyle, practicing physical activities, having nutritional and psychological follow-up, maintaining consultations with the geriatrician and thus preventing sarcopenia. As studies on sarcopenia advance, the need for early diagnosis in order to increase longevity and healthy aging is increasing.

**127. IMPACT OF VACCINATION AGAINST HUMAN PAPILLOMAVIRUS (HPV) ON COLLAR CANCER UTERINE**Pedro Antônio da Costa Carvalho<sup>2</sup>, Dara Farias Freitas<sup>1</sup><sup>1</sup>Centro Universitário UNDB

**INTRODUCTION:** Human papillomavirus (HPV) is a virus that causes sexually transmitted infections, causing warts in oral and genital tissues and, depending on the viral type, can cause cancer, such as: cervix, vulva, vagina, penis, anal canal, among others. The HPV vaccine is applied in the Public Health System (SUS) with a focus mainly on individuals who have not yet started their sexual life. In Brazil, immunization began in 2014 with two doses of the quadrivalent vaccine, which protect against types 6 and 11 (which cause warts), 16 and 18 (oncogenic). Today, vaccination also extends to boys aged nine to 14. This research aimed to identify how vaccination coverage occurred over the years in Brazil, relating it to the incidence of cervical cancer. **METHODS:** this study, of a quantitative nature, used as a method a numerical survey of the distribution of HPV vaccines in Brazilian states and their adherence. Also, a survey of the rates of patients with cervical cancer was carried out, in order to manage comparisons of the values found for vaccination with the incidence of cancer. All surveys were carried out through the government website DATASUS. For the other theoretical foundations, extensive research was used on related websites, such as: WHO, INCA, among others. **RESULTS:** In Brazil, adherence to the HPV vaccine does not reach the level recommended by the WHO, 90% for girls between nine and 14 years old. According to a study by the Cancer Foundation, with data from 2013 to 2020, 76% of the target audience took the first dose and only 56% took the two doses provided for in the Brazilian vaccination schedule. In relation to boys, the numbers are even lower, with only 52% vaccinated with the first dose in 2022. The main reason for coverage so far below the target is mainly fear and lack of information among the population. In Brazil, the mortality rate from cervical cancer, adjusted for the world population, was 4.60 deaths/100 thousand women in 2020. **CONCLUSION:** Cervical cancer still appears as one of the main causes in the country, ranking as the third highest incident, especially in the North and Northeast regions, which have lower vaccination coverage and access to routine exams for early diagnosis and treatment. Despite being a potentially preventable cancer with preventive measures and early screening, we are still far from achieving adequate targets for the Brazilian population.

**128. IMPACTS OF SLEEP DEPRIVATION IN MEDICAL STUDENTS: A LITERATURE REVIEW**Gustavo Bender Hendges<sup>1</sup>, Saleth Victoria Pinheiro Maciel<sup>1</sup>, Míuria Joyce Pereira Raposo<sup>1</sup>, Antônia Márcia Dutra Rabelo<sup>1</sup>, Deborah Bouéres Laender Moraes<sup>1</sup>, Anna Beatriz Costa Azevedo<sup>2</sup>, Alice Marques Moreira Lima<sup>3</sup><sup>1</sup>Universidade Estadual da Região Tocantina do Maranhão (UEMASUL)<sup>2</sup>Universidade Federal do Maranhão (UFMA)<sup>3</sup>Laboratory Cedro.

**INTRODUCTION:** The quality of sleep is paramount for the well-being, academic performance, and physical and mental health of medical students. However, these students often encounter difficulties in meeting the daily sleep recommendations (7 to 9 hours) due to various factors such as extensive schedules, night shifts, stress, and poor sleep habits. Consequently, concerns arise regarding learning, academic performance, and patient safety concerning the impacts of sleep deprivation on medical students. **METHODS:** An integrative literature review was conducted using the descriptors "sleep deprivation," "impacts," and "medical students" in both English and Portuguese, employing the connector "AND" on the PubMed and SciELO databases. Articles published within the last 5 years in indexed journals and relevant to the research topic, in either English or Portuguese, were included. The exclusion criteria comprised thesis papers and literature reviews. A total of 21 articles were identified, of which 9 met the pre-established criteria and were utilized. **RESULTS:** Studies conducted with medical students in Brazil revealed that daytime sleepiness was associated with a higher risk of developing depression and anxiety, as well as a lower quality of life and a negative perception of the educational environment. Research from other countries such as Pakistan, Poland, and India corroborated these findings, highlighting the role of tobacco and energy drinks in insomnia and the influence of study time and excessive use of social media on sleep deprivation. Furthermore, studies from the United States and Saudi Arabia evaluated the impact of COVID-19 on the sleep quality of medical students. With stay-at-home restrictions, the pandemic further disrupted sleep patterns, resulting in reduced sleep quality and increased use of sleep medication among medical students. None of the analyzed studies found relationships between sleep deprivation and academic performance. **CONCLUSION:** Sleep deprivation significantly impacts the quality of life of medical students, with implications for short- and long-term physical and mental health. While a direct relationship between sleep deprivation and academic performance was not found in the analyzed studies, it is crucial to review the routines of these students to ensure better quality of life and professional development.

**129. IMPEDES TO SCREENING AND ASSOCIATED RISK FACTORS OF PROSTATE CANCER**

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**INTRODUCTION:** Prostate Carcinoma (PC) is the anomaly affecting the prostate, a gland located below the bladder that surrounds the urethra, the canal connecting the bladder to the external opening of the male reproductive organ. This neoplasm can be traced through digital rectal examination and analysis of Prostate-Specific Antigen (PSA), recommended from the age of 45. In the Brazilian context, the stigma associated with rectal examination and the ineffectiveness of public awareness policies compromise early screening, thus delaying the initiation of therapy. The purpose of this study is to analyze the risk factors linked to prostate cancer and identify barriers hindering disease screening in the country. **METHODS:** This study adopted an integrative review approach, selecting articles published from 2018 to 2023, using Lilacs, MedLine, and Scielo platforms. Inclusion criteria encompassed primary, original articles written in Portuguese. Studies not meeting the established inclusion requirements were excluded from the analysis. **RESULTS:** Through the intersection of descriptors used, a total of 57 articles were identified, with 14 meeting the criteria for this review. Data analysis revealed that prominent risk factors associated with PC include: low education level, advanced age, lifestyle, black ethnicity, and ancestry. Additionally, variables such as elevated anthropometric measures, lifestyle habits, smoking, alcohol consumption, family history, and socioeconomic status were considered coadjutant aspects in predisposition to PC. Simultaneously, literature emphasized key obstacles affecting men's adherence to preventive examinations, including shame related to intimate exposure, prejudice towards rectal examination, lack of information, and apprehension associated with PSA blood testing and prostate biopsy. **CONCLUSION:** This study underscored the importance of training a multiprofessional team, focusing on creating humanistic approaches to encourage greater male participation in screening campaigns. Furthermore, it highlighted the significance of developing tools facilitating shared decision-making between doctors and patients, contributing to more rational and effective clinical care.

**130. IMPORTANCE OF GENETIC DIAGNOSIS IN CONGENITAL MYOPATHIES: A LITERATURE REVIEW**

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**INTRODUCTION:** Congenital myopathies are a heterogeneous group of disorders that result in hypotonia, muscle weakness, and dystrophies or myopathic findings on muscle biopsy. Previously, their diagnosis was made based on clinical and histopathological aspects, however, recent advances in genetics have changed diagnostic practice, relying more strongly on genetic findings, contributing to accuracy and speed, in addition to being increasingly accessible and non-invasive. The aim of this review is to analyze the role and clinical relevance of molecular genetic diagnostic tests for the accurate and early diagnosis of the main congenital myopathies. **METHODS:** Literature review in PubMed and Cochrane databases, selecting articles in English between 2014 and 2019. The search used MeSH terms and keywords with boolean operators to retrieve articles on genetic testing in the diagnosis of congenital myopathies. The terms included "congenital myopathy" OR "congenital muscular dystrophy" AND "genetic testing" OR "molecular diagnosis". Original studies, narrative reviews and case studies were included. **RESULTS:** Genetic testing has become the first exam in the diagnosis of most patients with suspected congenital myopathies, especially for the exclusion of differential diagnoses. However, careful interpretation of the results is essential, since many of these diseases are associated with several genes, presenting wide phenotypic variation and overlap of clinical characteristics. Accurate molecular diagnosis enables proper genetic counseling, recurrence risk estimation, and guidance on surveillance and treatment. In addition, the initial use of genetic testing represents time savings and avoids invasive and expensive procedures. However, one of the main challenges is determining whether the detected genetic variants are truly pathogenic and distinguishing them from the polymorphisms that exist in diseases. **CONCLUSION:** Genetic findings should always be combined with information on clinical presentation, family history, and other examinations such as muscle biopsy, since further studies are still needed to increase the diagnostic capacity of genetic testing alone. In addition, more long-term data on genotype-phenotype and natural history of diseases are needed to improve the interpretation of genetic test results.

**131. IMPORTANCE OF LABORATORY ANIMALS IN BIOMEDICAL SCIENCES: A LITERATURE REVIEW**

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**INTRODUCTION:** Since ancient times, animals have been exploited for various purposes, including in scientific research that seeks advances in the area of health. As a result, many benefits to the human species were achieved, including the discovery of vaccines, medicines and new surgical techniques. Furthermore, the use of laboratory animals is extremely important in the teaching-learning process of professionals in biomedical areas, as they provide means for safer practice. The objective of the study is to highlight the use of animals in medical training as an essential component in the preparation of the most diverse professionals in the field. **METHODS:** This is a narrative literature review on the importance of laboratory animals in biomedical sciences. The bibliographic search was constructed through research in the following databases: Scientific Electronic Library Online (SciELO), PubMed and Virtual Health Library (VHL). The scientific productions were selected based on the descriptors: "Laboratory animals" and "Biomedical sciences". Six scientific productions were selected between 1989 and 2020 with literary relevance and a reliable relationship with the theme. **RESULTS:** 6 articles were selected on the use of laboratory animals and their impacts on academic training for biomedical sciences, seeking to associate animal models and the ethical concerns of their use, especially in the development of medical skills. Simulation offers less risk to the patient, since the application of animal models helps to improve surgical skills and preparation of students. In the literature, it was clear that new devices and techniques were always initially tested on experimental animal models. Finally, all articles culminate in the importance of highlighting that the use of animal models should be limited to cases in which there really is a plausible justification for their applicability. **CONCLUSION:** Therefore, the relevance of using laboratory animals in biomedical sciences comes from the educational potential associated with experimental practice in the training process, given that the advantages inherent to the use of laboratory animals are related to scientific innovation, technical simulation and improvement of skills and competencies that guarantee qualified medical training.

**132. INCIDENCE OF ANXIETY AND DEPRESSION IN PATIENTS WITH CHRONIC HEART FAILURE**

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**INTRODUCTION:** Heart failure with reduced ejection fraction (HFrEF) is the inability of the heart to pump blood adequately, which can compromise patients mental health and quality of life. With this in mind, the purpose of this study is to analyze the incidence of anxiety and depression in patients with HFrEF treated on an outpatient basis and to broaden the discussion on the subject. **METHODS:** This is a cross-sectional study of 174 patients with HFrEF in a public hospital in Maranhão in 2022. Two validated questionnaires were used to assess mental health, one for anxiety, Generalized Anxiety Disorder 2 (GAD-2), and the other for depression, Patient Health Questionnaire-2 (PHQ-2). For each questionnaire, a score greater or equal to three represents the highest probability of the patient having the conditions investigated. Pearson's correlation test was used to assess the association between the GAD-2 and PHQ-2 questionnaires. The sociodemographic variables used were: gender, ethnicity, age and marital status. Descriptive analysis was also carried out using the RStudio software and this study was approved by the Research Ethics Committee under protocol number: 25756919.9.2004.5086. **RESULTS:** The study included 174 patients with a mean age of 57.6 years (SD=14.2), the majority of whom were male (70%), mixed race (61.2%) and married (50.3%). As for the GAD-2 questionnaire, 30.4% (n=53) said they were unable to control their worries more than half the time and 28.16% (n=49) had a positive score for anxiety. In the PHQ-2 analysis, 22.4% (n=39) felt little interest in doing their activities most days and 20.6% (n=36) had a positive score for depression. Pearson's test between the GAD-2 and PHQ-2 scores showed a value of 0.547, representing a moderate correlation. There was no correlation between the results of the questionnaires and sociodemographic conditions. **CONCLUSION:** A significant percentage of patients with HFrEF have anxiety and/or depression. This indicates that this disease can lead to major emotional decompensation due to worries and lack of interest in daily activities, causing a decline in quality of life. Therefore, it is important to initially identify patients in emotional distress in order to carry out a psychological intervention combined with pharmacological treatment, in order to act beyond the physical aspects of the disease

**133. INCIDENCE OF TUBERCULOSIS IN YOUNG PEOPLE IN THE SÃO LUÍS REGION FROM 2018 TO 2022**

Ana Clara Arouche Lemos da Silva<sup>1</sup>, Marcelle Teixeira e Silva<sup>1</sup>, Renato de Freitas Farias<sup>1</sup>, Francisco Santos de Almeida<sup>1</sup>, Anna Karoliny Freitas de Souza<sup>1</sup>, Dâmaris Gonçalves Vieira<sup>1</sup>, Walquiria Lemos Ribeiro da Silva Soares<sup>1</sup>.

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**INTRODUCTION:** Tuberculosis (TB) is an infectious disease, transmitted by a microorganism (or microbe), that can occur in various locations of the body, with over 85% of cases occurring in the lungs. This microorganism is a special type of bacterium, also known as the bacillus of Koch, named after Robert Koch who identified *Mycobacterium tuberculosis* in 1882. Data from the World Health Organization (WHO) indicate that Brazil is among the 22 countries with the highest number of TB cases, responsible for 82% of global cases and 75% of cases involving youth. **METHODS:** This is an ecological study of a time series, conducted between 2018 and 2022, in the São Luís Health Region, Maranhão, Brazil. All cases of tuberculosis in individuals aged zero to nineteen years (0 to 19 years) registered in the São Luís Health Region were considered. The data were obtained from the Notifiable Diseases Information System (Sinan) provided by the Health Department of the State of Maranhão, in digital format. The incidence rate of TB in children and adolescents was considered as the dependent variable and study outcome. The rate was calculated as the ratio between the number of new TB cases in individuals under 19 years old and the population at risk, multiplied by the constant 100,000. A new case of tuberculosis is understood to be a patient who has never undergone anti-tuberculosis therapy or who has been treated for less than 30 days. **RESULTS:** During the study period, a total of 6,509 (100) confirmed TB cases were registered, with a value of 483 (7.42) in the age group of 0 to 19 years. The incidence rate of TB in children and adolescents over the years showed its highest index in 2022 (7.49). **CONCLUSION:** The study allowed for an understanding of the incidence of new TB cases in childhood and adolescence in the São Luís Health Region, as well as identifying the year 2022 as having the highest incidence rate (7.49). Among the possible limitations of this study, it is understood that the use of secondary sources, although official and widely used in scientific work, may present data incompleteness and divergent conditions. The results presented contribute to a deeper understanding of the epidemiological situation of tuberculosis over the years, providing measures for decision-making related primarily to prevention and treatment actions for the disease in the São Luís Health Region.

**134. INCIDENCE OF GIST TUMOR IN BRAZIL**

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**INTRODUCTION:** GISTs, or Gastrointestinal Stromal Tumors, are a class of neoplasms that originate in the cells of the gastrointestinal stromal system. Despite their rarity, these tumors play a significant role in the oncological landscape. With a well-defined global prevalence, Brazil faces challenges in understanding their actual incidence, as it is not categorized independently but, due to its rarity, grouped under "other" cancers. This work aims to fill this gap by providing crucial data for the diagnosis and treatment of this neoplasm. **METHODS:** This is a literature review with studies available in the databases of the Virtual Health Library and PUBMED. The descriptors used were "tumor," "GIST," "Incidence," and "Surgery." Inclusion criteria involved studies available in full between 2010 and 2023. Articles with conflicting literature and repetitions in the databases were excluded. **RESULTS:** According to the consulted literature, GIST tumors, despite their rarity, represent approximately 1 to 3% of gastrointestinal neoplasms, 80% of mesenchymal tumors in the digestive tract, and 5% of all sarcomas. The worldwide incidence is 1.5 per 100,000 inhabitants, with 3 to 5 thousand new cases per year in the United States. In Brazil, the Ministry of Health estimates approximately 1800 new cases per year, with the actual incidence still unknown in the country. GIST affects almost the entire gastrointestinal tract, being more frequent in the stomach (40 to 70%), small intestine (20 to 50%), and 5% in the colon, rectum, and esophagus. Additionally, it is classified according to the predominant cell type, being spindle-shaped (75%), epithelioid (20%), and mixed (5%). **CONCLUSION:** Therefore, GIST tumors, though considered rare compared to other neoplasms, have a significant incidence, including in Brazil with around 1800 cases per year. Thus, further epidemiological studies are necessary to precisely define these data in the contemporary Brazilian scenario, in order to better understand these types of tumors and characterize their risk factors and treatments.

**135. URINARY TRACT INFECTIONS IN PREGNANCY: A LITERATURE REVIEW**

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**INTRODUCTION:** Urinary Tract Infections (UTIs) are characterized by the presence of pathogens causing clinically relevant tissue damage, constituting a prevalent condition that affects approximately 2 million people annually in Brazil. UTIs have implications that compromise both the pregnant woman and the fetus, stemming from highly impactful infectious agents in human health. The review aimed to describe the clinical complications of UTIs in pregnant women from 2015 to 2023, specifically focusing on infections affecting the urogenital system and compromising maternal-fetal health. **METHODS:** A literature search was conducted using the Scielo, Medline, and PubMed databases, along with data from the Brazilian Ministry of Health regarding UTIs in pregnant women and their impact on maternal-fetal health. The search terms "urinary tract infection", "clinical factors" and "epidemiology" were used to gather information for a structured spreadsheet, with separate results for "pyelonephritis", "cystitis", "urethritis" and "upper urinary tract infection". **RESULTS:** During the sample period, the review demonstrated that pregnant women, particularly adolescents, those with low socioeconomic status, illiterate individuals, and multiparous women, exhibited a heightened probability of UTIs with risks of compromising maternal-fetal health. UTIs were also identified in the context of inflammatory diseases, posing a risk of invasion and multiplication of microorganisms, especially those with high resistance, such as *E. coli*. The most common symptoms included dysuria, urgency, suprapubic pain, and polyuria, associated with fever and low back pain as confusing signs. Severe cases posed risks to the parturient, including spontaneous prematurity, pyelonephritis, anemia, bacteremia, respiratory and renal failure, and progression to sepsis, to the conceptus, mortality or cerebral palsy. **CONCLUSION:** UTIs during pregnancy require appropriate care and attention. Misinformation and non-adherence to prenatal care are among the primary causes of this problem, affecting both the mother and the fetus. Given that UTIs in pregnant women represent a serious public health issue, it is crucial to promote awareness, prevention, and treatment to ensure maternal and fetal well-being.

**136. INFLUENCE OF BODY DYSMORPHIC DISORDER ON MEN'S HEALTH: LITERATURE REVIEW**

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**INTRODUCTION:** Body dysmorphic disorder (BDD) is characterized as a syndrome of image distortion or dysmorphophobia, in which there is an obsessive preoccupation with physical appearance and a distancing from the real image to the detriment of an idealized one. An increase in its incidence has been observed in males due to aesthetic and sociocultural pressures and desired physical performance, leading to persistent body dissatisfaction that generates consequences for the affected individual. Thus, this review aims to analyze the influence of body dysmorphic disorder on men's health. **METHODS:** The data was collected through a literature review using the descriptors "body dysmorphic disorder", "men's health" and articles published in the BVS, medline, lilacs and Google scholar. The inclusion criteria were original and review articles published in full in Portuguese and English, within the last 5 years, using the descriptors in the respective languages. The exclusion criteria were duplicate articles and those that did not address the theme. **RESULTS:** With regard to the evidence related to body dysmorphic disorder, the collection of literature showed a prevalence of this dysmorphism in men who practiced sports related to body weight, such as bodybuilding. Within this group, we analyzed the prevalence in young individuals, average age 18, who have been practicing regularly for at least 3 months, at least 3 times a week. As such, this age group is more vulnerable to the disorder, since they want to change their body image, hypertrophy or lose weight. In addition, there is a greater susceptibility to muscle dysmorphism in bodybuilders, since their performance is directly related to their physical appearance and not to their conditioning. As a result, in search of an aesthetic standard, there has been a search for alternatives such as anabolic steroids, as well as the development of eating disorders. **CONCLUSION:** This is a relevant social issue, as there are associated environmental, sociocultural and psychological factors that cause functional and organic damage to men with BDD. There was also a scarcity of literature during the search process, highlighting the need for studies on the subject.



**137. INFLUENCE OF ENVIRONMENTAL FACTORS ON CHRONIC HEART FAILURE**

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**INTRODUCTION:** Heart Failure is a complex clinical syndrome that negatively impacts the quality of life of affected patients and is concurrently influenced by cultural, social, political, economic, and environmental determinants. This study aims to describe the environmental characteristics of patients with HF, in order to analyze the clinical profile and its repercussions on quality of life and treatment responses. **METHODS:** This is an observational, cross-sectional, descriptive study. Patients diagnosed with Chronic HF with left ventricular ejection fraction  $\leq 49\%$ , aged 18 to 90 years, were included in the research (CAAE: 25756919.9.2004.5086), from July 2021 to July 2023. The sample comprises 180 patients from a University Hospital in the state of Maranhão, with information obtained from medical records and questionnaire application. Variables are presented as mean, relative, and absolute values. **RESULTS:** The sample consists of 123 male patients (68.33%) and 57 female patients (31.67%), with a mean age of 57.55 years. Statistical analysis results indicate that 84.44% (n=152) of the residences are owned by the occupants, with a high predominance of urban areas (77.22%, n=139). Regarding infrastructure, the majority have access to piped water supply (91.11%, n=164) and regular garbage collection (85.55%, n=154). However, 41.11% (n=74) of patients do not have access to sewerage services. Although the majority have internet access (78.33%, n=141), a considerable portion (21.66%, n=39) still do not have this resource. **CONCLUSION:** Most individuals reside in their own homes in urban areas, reflecting reasonable development in infrastructure, although there are still challenges affecting a significant portion of the sample, such as those related to sewerage and flood-prone areas. Internet connectivity is widely available, but there are still areas with little or no access. These factors not only influence the presence and distribution of risk factors but also the biological mechanisms related to HF pathogenesis. Therefore, the formulation of public policies focusing on infrastructure improvement, security, and digital inclusion becomes crucial. Thus, the health-disease process can be understood as a final product of individuals' social position and their relationships.

**138. RENAL FAILURE IN CHILDREN IN BRAZIL AND QUALITY OF LIFE AFTER TRANSPLANT**

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**INTRODUCTION:** Renal failure (RI) is a disease that consists of the inability of the kidneys to perform their functions. It can be classified as acute or chronic, according to the speed of loss of function. This work aims to carry out an epidemiological analysis of hospitalizations of children due to RI in Brazil, from 2020 to 2022, and to carry out a review regarding the quality of life after pediatric kidney transplantation. This topic is relevant due to the high prevalence of this pathology in Brazil, and the need to increase knowledge about it. **METHODS:** Using a quantitative methodological approach, an analysis of available data on RI in pediatric patients in the Hospital Information System (SIH/SUS) of the Department of Informatics of the Unified Health System (DATASUS) was conducted. Microsoft Excel software was used for graphical analysis. The data examined covers the entire national territory. A systematic literature review was also carried out on the Pubmed platform to investigate the quality of life of children after kidney transplantation. **RESULTS:** In 2020, 3825 hospitalizations were carried out: 352 patients under 1 year old, 604 between 1 and 4 years old, 660 between 5 and 9 years old, 898 between 10 and 14 years old, and 15 to 19 years old years were 1311. In that same year, the number of pediatric kidney transplants was 242. In 2021, 3990 hospitalizations were carried out: according to the age groups already described, there were, respectively, 334, 636, 716, 954, and 1350 hospitalizations, and the number of transplants was 307. In 2022, 4239 hospitalizations were carried out: according to the same age groups, there were 378, 694, 704, 1046, and 1417 hospitalizations, and the number of transplants was 265. The questionnaire The most used in studies was PedsQoL 4.0, and all articles analyzed in this literature review showed an increase in quality of life indexes after transplantation. **CONCLUSION:** There was a trend towards an increase in hospitalizations for renal failure in children in Brazil during the period studied. Kidney transplantation is also pointed out as the main measure to increase the quality of life of these patients. However, the number of pediatric kidney transplants remains low relative to demand. Therefore, there is a need to encourage organ donation and strengthen kidney transplant treatment strategies to ensure a better quality of life for these patients affected by RI.

**139. ARTIFICIAL INTELLIGENCE IN THE DIAGNOSIS OF SKIN CANCER: A LITERATURE REVIEW**

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**INTRODUCTION:** Skin cancer is defined by the abnormal proliferation of skin cells, and its traditional diagnosis relies on clinical examinations and biopsy. Benign alterations often occur, leading to confusion with malignant lesions. Implementing Artificial Intelligence (AI) aims to assist healthcare professionals in achieving more accurate diagnoses. Given dermatology's visual nature and numerous databases with photographic records, there is significant potential for this implementation. This study seeks to understand how AI can aid in skin cancer diagnosis. **METHODS:** This literature review utilized the databases of the Virtual Health Library and Google Scholar. Descriptors included "Artificial Intelligence," "Diagnosis," "Dermatology," "Skin Cancer," and "Carcinoma." Inclusion criteria encompassed relevance to the study and publication within the last 5 years. All freely accessible articles were thoroughly read. **RESULTS:** Dermatological AI is structurally based on convolutional neural networks and deep learning from databases containing physiological and pathological photographic records. This AI is developed to effectively and precisely classify skin diseases by identifying anomaly patterns in dermatological lesions. The option of using digitized histopathological samples for network training, utilizing high-quality stained slides for biopsy sample analysis, is also explored. Neural networks exhibit highly significant performance even in early diagnoses, with low false positive/negative rates. However, limitations include the binary response of AI, resulting in either acknowledging or negating pathology existence, and a lack of images representing diverse ethnic groups. Image classifiers exclusively trained with databases of clinical photographs labeled by non-medical professionals yielded unsatisfactory concordance levels with the actual clinical condition. **CONCLUSION:** AI proves effective, although limitations such as the lack of clinical databases encompassing ethnic diversity and the need for improvements in lesion sensitivity, specificity, and precision exist. Thus, AI should be used as a support tool for professionals rather than a diagnostic tool for skin cancer.

**140. HOSPITAL ADMISSIONS AND COSTS OF PULMONARY TUBERCULOSIS IN MARANHÃO BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Tuberculosis (TB) is a chronic infectious disease caused by *Mycobacterium tuberculosis*, a bacillus that is transmitted by air and proliferates mainly in the lung, a place with ideal conditions for bacterial growth. Despite being a curable disease, it still has a high incidence mainly because of the lack of access to health services, late diagnosis, low adherence and abandonment of treatment, being considered a serious public health issue in Brazil and other developing countries. **METHODS:** The study aimed to analyze information on morbidity and hospital costs due to pulmonary tuberculosis, as well as its regional aspects, between the years 2018 and 2022 in the state of Maranhão. This is a descriptive quantitative study, carried out through the Hospital Information System of the Unified Health System (SIH/SUS), with data relating to hospitalizations, costs of hospital services and deaths from pulmonary TB, according to the year of processing and health region. The data was organized using the software Microsoft Excel to create tables. **RESULTS:** In Maranhão, in the last 5 years, there were 593 admissions for pulmonary TB and 2022 was the year with the highest number of hospitalizations (159). A total of 57 deaths were registered and, comparing 2018 with 2022, there was a 400% increase in the number of deaths between these years. Furthermore, there was an exponential growth in costs in the analyzed period, with the last year being the most expensive, corresponding to a cost of 103,040.40 reais, 27% of the total amount of hospital services (R\$ 380,285.30). The health regions of São Luís (185), Imperatriz (61) and Açailândia (53) were the majority in hospitalization numbers. São Luís was also responsible for most of the costs (R\$ 264,560.69) and mortality, corresponding to 15 deaths, followed by Bacabal with 8 deaths. **CONCLUSION:** The increase in morbidity and mortality from pulmonary TB in recent years highlights the need for external measures for the prevention, early diagnosis and treatment of this disease. In addition, more studies need to be developed to clearly understand tuberculosis in the context of Maranhão, in order to stop the increase in hospitalization and death rates, as well as reduce subsidies for the Unified Health System.

141. **HOSPITALIZATIONS AND MORTALITY FOR STROKES IN BRAZILIAN NORTHEAST FROM 2018 TO 2022**

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**INTRODUCTION:** Stroke consists in the blood supply occlusion for the brain. It can be classified into two main types: ischemic, which is the obstruction of blood vessels, and hemorrhagic, the rupture of blood vessels. Stroke is the main cause of cognitive deficits and incapacity, also an important death cause, which generates serious social and economic damage. Therefore, it is of great importance to analyze stroke hospitalization and mortality in the Brazilian Northeast.

**METHODS:** This is an ecological, cross-sectional and retrospective study with a descriptive approach which analyzed the Brazilian Northeast from 2018 to 2022 period. The data was collected from Departamento de Informática do SUS (DATASUS), organized in tables and studied according to the variables: regions, year of medical service, type of medical care, and deaths. For using secondary data and from public domain, Ethical Committee approval was unnecessary. **RESULTS:** In 2018 44.522 hospitalizations and 7.236 deaths were registered. Following, in 2019 the highest number of hospitalizations were registered (48.462) and, as expected, the highest death numbers, for the studied period, which means an increase of 8,84% in hospitalizations and 11,66% in deaths. In 2020, it should be noted the lowest number of hospitalizations during this period due to an 13,8% decrease, also, 7.355 deaths were registered. The following year, 2021, there was an increase of 9,63% in hospitalization numbers and 7,53% in deaths. In 2022 - the last year analyzed in this study - 48.079 hospitalizations were registered, which represents an increase of 5%, while the number of deaths reduced by 4,35% compared to the previous year, a total of 7,565 deaths.

**CONCLUSION:** It was found that 2019 was the year with the highest number of both hospitalizations and mortality. Although, the years that registered the greatest mortality compared to the hospitalization total were the following two years 2020 and 2021 with both reaching 17%, which can be justified by the pandemic. In 2022 there was an increase of stroke hospitalizations, however, it registered lower death numbers compared to hospitalization cases. Therefore, data analysis is essential to future studies, because it effectively directs politics and action health planning to prevention and stroke treatment.

142. **HOSPITALIZATIONS AND DEATHS DUE TO VIRAL ENCEPHALITIS BEFORE AND AFTER THE COVID-19 PANDEMIC IN MARANHÃO**

Luis Miguel Moraes Araujo<sup>1</sup>, João Pedro Pimentel Abreu<sup>1</sup>, Fernanda Karolynne Sousa Coimbra<sup>1</sup>, Camila de Carvalho Vieira<sup>1</sup>, Adna Cristina da Silva Pereira<sup>1</sup>, Isabela Carolyne de Melo Costa<sup>1</sup>

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**INTRODUCTION:** Encephalitis is an inflammation of brain tissue caused mainly by viral infections, which is characterized by symptoms such as fever, headache, mental confusion, convulsions and movement disorders. In the context of the COVID-19 pandemic, despite predominantly affecting the respiratory system, encephalitis has also been described as a serious complication of this condition. Therefore, the objective of the following work is to assess whether there was a trend towards an increase in the number of hospitalizations and deaths due to viral encephalitis in the period after the Sars-Cov-2 pandemic in Maranhão. **METHODS:** To carry out this study, data were collected and analyzed from DATASUS - SUS Hospital Information System (SIH/SUS) of the Ministry of Health. The data covers the period from January 2017 to December 2022, and concerns the number of hospitalizations and deaths per federation unit. As for Maranhão, we searched for hospitalizations and deaths by age group, sex and skin color, from January 2017 to December 2019, and January 2020 to December 2022. Subsequently, the option "viral encephalitis" was defined in the "CID-10" tab. **RESULTS:** The number of hospitalizations for encephalitis in the studied period was highest in 2019 (2436), showing a sudden drop in 2020 (1689), a slight drop in 2021 (1647) and an increase in 2022 (1977). The number of deaths, in turn, was higher in 2017 (131), with a drop from 2019 (123) to 2020 (106), reaching the minimum in 2021 (83). In Maranhão, there was also a drop from 2019 to 2020 in the number of hospitalizations (166 and 126, respectively) and deaths (11 and 9, respectively). There were more hospitalizations (n=483) and deaths (42) for males. Pre-pandemic, the most affected age group was between 30 and 39 years old (73), and, post-pandemic, it was between 1 and 4 years old (107). The brown population was the most hospitalized in the pre- (122) and post-pandemic (146) periods. **CONCLUSION:** There was a reduction, nationally and in the state of Maranhão, in hospitalizations and deaths due to viral encephalitis in the post-pandemic period. In the state scenario, in relation to hospitalizations and deaths, there was a predominance of males in both periods analyzed and the most affected age was 30 to 39 years in the pre-pandemic period and 1 to 4 years in the post-pandemic period. Brown people were the majority in hospitalizations in both periods, while yellow people were the majority in deaths pre-pandemic and there was no distinction between brown people and yellow people post-pandemic.

143. **HOSPITALIZATIONS DUE TO ACUTE MYOCARDIAL INFARCTION: EPIDEMIOLOGICAL PROFILE OF THE STATE OF MARANHÃO**

Rommayolle Costa Diniz de Sousa<sup>1</sup>, Sharon dos Santos Albuquerque<sup>1</sup>, Bruno dos Santos Albuquerque<sup>1</sup>, Rafael Castro Viegas<sup>1</sup>, Gustavo de Oliveira Silva<sup>1</sup>  
<sup>1</sup>Universidade Estadual do Maranhão (UEMA)

**INTRODUCTION:** According to data from the Federal Police's International Traffic System (STI), Brazil is currently home to more than 477,000 Venezuelan refugees. Most of the immigrants enter through the north of the country, in the state of Roraima (RR), and are initially concentrated in the cities of Boa Vista and Pacaraima. In these cities, refugees are welcomed, sheltered and receive health care. The aim of this study is to analyze the impact of spending approved for health care in two cities in Roraima. **METHODS:** This is a comparative study of the amounts approved for outpatient care in two cities in RR with a high number of Venezuelan refugees, between the periods 2011 to 2016 (1st period) and 2017 to 2022 (2nd period). The figures for care were obtained from DATASUS, the Ministry of Health, and the number of refugees in Brazil from STI. As this is a study using secondary data, approval by the Research Ethics Committee is not required. **RESULTS:** In the first period, the municipalities analyzed had a total of R\$257,679,943.08 approved for outpatient care. In the 2nd period, the amounts approved increased by 23% compared to the previous 6 years. This increase did not occur evenly over the years, with a lower amount approved in 2020 than in almost all the years of the 1st period. 2020 also saw the lowest number of Venezuelan refugees entering the country (47,661). The highest amounts approved for outpatient care occurred in 2022, 2018, 2017 and 2019, respectively, coinciding with the years with the highest influx of Venezuelan refugees. **CONCLUSION:** The results suggest a correlation between the influx of Venezuelan refugees and the increase in the amounts approved for health care in the municipalities that primarily receive them. Further research should be carried out to prove this hypothesis.

144. **THE IMPACT OF VENEZUELAN REFUGEES ON HEALTH SPENDING IN TWO RORAIMA CITIES**

Elder Teles Teixeira<sup>1</sup>  
<sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** According to data from the Federal Police's International Traffic System (STI), Brazil is currently home to more than 477,000 Venezuelan refugees. Most of the immigrants enter through the north of the country, in the state of Roraima (RR), and are initially concentrated in the cities of Boa Vista and Pacaraima. In these cities, refugees are welcomed, sheltered and receive health care. The aim of this study is to analyze the impact of spending approved for health care in two cities in Roraima. **METHODS:** This is a comparative study of the amounts approved for outpatient care in two cities in RR with a high number of Venezuelan refugees, between the periods 2011 to 2016 (1st period) and 2017 to 2022 (2nd period). The figures for care were obtained from DATASUS, the Ministry of Health, and the number of refugees in Brazil from STI. As this is a study using secondary data, approval by the Research Ethics Committee is not required. **RESULTS:** In the first period, the municipalities analyzed had a total of R\$257,679,943.08 approved for outpatient care. In the 2nd period, the amounts approved increased by 23% compared to the previous 6 years. This increase did not occur evenly over the years, with a lower amount approved in 2020 than in almost all the years of the 1st period. 2020 also saw the lowest number of Venezuelan refugees entering the country (47,661). The highest amounts approved for outpatient care occurred in 2022, 2018, 2017 and 2019, respectively, coinciding with the years with the highest influx of Venezuelan refugees. **CONCLUSION:** The results suggest a correlation between the influx of Venezuelan refugees and the increase in the amounts approved for health care in the municipalities that primarily receive them. Further research should be carried out to prove this hypothesis.

145. **ADMISSIONS FOR BRAIN INFARCTION IN MARANHÃO BETWEEN 2019-2023: AN EPIDEMIOLOGICAL ANALYSIS**

Luanna Stefanny Campos do Nascimento<sup>1</sup>, Mariana Clara Borges da Silva<sup>1</sup>, Antônia Márcia Dutra Rabelo<sup>1</sup>, Myrelle Salgueiro Porto de Sá<sup>1</sup>, João Henrique Xavier de Oliveira<sup>1</sup>, Alice Marques Moreira Lima<sup>2</sup>.

<sup>1</sup>Universidade Estadual da Região Tocantina do Maranhão

<sup>2</sup> Universidade Federal do Maranhão.

**INTRODUCTION:** Cerebral infarction or ischemic stroke (IS) is characterized by the obstruction of an artery in the brain, caused mainly by an atherosclerotic plaque or +embolus, resulting in compromised blood flow and cell death. The disease represents more than 70% of cerebrovascular problems and is one of the biggest causes of mortality worldwide. The objective of this study was to evaluate the profile of hospitalizations for cerebral infarction in Maranhão in the period between 2019 and 2023. **METHODS:** This is a retrospective descriptive epidemiological study based on secondary data made available by the SUS it department in the mentioned period. **RESULTS:** A total of 1,436 hospitalizations for cerebral infarction were reported in Maranhão in the period, with a sharp decline in hospitalizations from 2019 to 2020, with a reduction of 48.7%. The majority of hospitalizations were made in Imperatriz, where 20.33% of cases occurred. The age group from 60 to 79 years old was the most affected, representing 49% of notifications, with patients between 60-69 years old accounting for 22.6% of cases and those aged 70-79 years old, 26.4%. Regarding sex, the male population was predominant, representing 54.38% of hospitalizations. There were 179 deaths during the years evaluated, with a 57.14% drop in the number of deaths from 2019 to 2020. Among the total number of deaths, the age group over 70 years old, with 53.63%, represented the majority of cases and the mortality rate was 12.46%. **CONCLUSION:** The age group over 60 years old was most affected by the disease, while in those over 70 years old, mortality was more frequent. Males were the most affected, as this gender is associated with more risk factors for cerebral infarction. Considering the Coronavirus pandemic and its peak in 2020, notifications of hospitalizations and deaths due to stroke may have been underreported, which may also have been reflected in the low mortality rate. In addition to this factor, a possible improvement in health services in the prevention and management of patients with ischemic stroke may also be linked to lower mortality. In view of this scenario, it is extremely important to constantly invest in epidemiological studies on stroke, since by recognizing risk factors, it becomes possible to construct more effective preventive measures and improvements in patient care.

146. **HOSPITALIZATIONS FOR PULMONARY TUBERCULOSIS IN MARANHÃO, FROM 2018 TO 2022: EPIDEMIOLOGY**

Maria Fernanda Sousa Linhares<sup>1</sup>, Ana Clara Abreu Mendes<sup>1</sup>, Ana Lurdes Portela de Araújo<sup>1</sup>, Isadora Marçal Barbosa Fernandes<sup>1</sup>, Ivana Maria Batista dos Santos<sup>1</sup>, Marcella Esser Los<sup>1</sup>, Vítor Castro dos Santos<sup>1</sup>

<sup>1</sup>Universidade CEUMA.

**INTRODUCTION:** Tuberculosis (TB) is an infectious and transmissible disease, caused by the bacterium *Mycobacterium tuberculosis*, which can affect various organs and/or systems, with the pulmonary form being the most common and the main responsible for maintaining the disease's transmission chain. This disease, despite being old, continues to be an important public health problem in the world, with around 10 million new cases reported annually. Given this scenario, the objective of this work is to describe the epidemiological profile of hospitalizations for pulmonary tuberculosis in Maranhão over the last 5 years. **METHODS:** systematic descriptive epidemiological study, with a quantitative approach. Data from the SUS Hospital Information System (SIH/SUS) on pulmonary TB were analyzed, in the variables hospitalizations, year of processing, age group, sex, color/race, nature of care, deaths and mortality rate. The data was categorized and tabulated using Microsoft Office Excel 2016, organized into graphs and tables. **RESULTS:** a total of 593 hospitalizations for pulmonary TB were recorded, the highest in 2022 (26.81%), and the lowest in 2020 (15.18%). In the age group variable, the disease caused more hospitalizations in patients between 30 and 39 years old (21.42%), followed by the age group between 40 and 49 years old (20%). In relation to sex, males represent 67.62% of cases and females represent 32.38%. In the color/race variable, it is more common in brown people (49%), and less common in black people (2%). When seeking care, 28.84% were elective and 71.16% were urgent. In the evolution of cases, 57 died. The mortality rate has increased in the last 5 years, from 3.92 in 2018 to 12.58 in 2022. **CONCLUSION:** this study concluded that the sociodemographic and epidemiological profile of pulmonary TB hospitalized patients, in the period from 2018 to 2022, corresponds mostly , to patients between 30 and 49 years old, male and mixed race. Furthermore, it was evident that the majority of care was urgent, with a significant number of deaths, with a mortality rate of 9.61. Given this, the number of hospitalizations is alarming, therefore, it is essential to implement public policies in the area of health for early diagnosis and treatment of pulmonary TB, in addition to vaccination campaigns, which include the BCG vaccine, to prevent the severe form of TB. disease and, consequently, reduce the number of hospitalizations and deaths.

147. **VISCERAL LEISHMANIASIS IN MARANHÃO: EPIDEMIOLOGICAL PROFILE OF THE LAST 10 YEARS**

Ingrid Silva Medeiros<sup>1</sup>, Daniela Almeida da Hora, Laura Beatriz Eloi Vieira<sup>1</sup>, Lídia Souza Araújo<sup>1</sup>, Francisca Letícia Chagas da Silva<sup>1</sup>, Taylane Caroline Cunha Carvalho<sup>1</sup>, Gizele de Oliveira Santos Silva<sup>1</sup>

<sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Visceral leishmaniasis is a systemic disease, typical of tropical areas, which can be lethal when left untreated. Insects of the genus *Lutzomyia* are the disease vectors to humans in the Americas. In Brazil, the main species is *Lutzomyia longipalpis*. Over the years, this disease has shown a higher incidence in the rural areas of the northeastern region of the country, mainly in the states of Piauí and Maranhão. However, migratory movements, environmental transformations and urbanization progress have facilitated its expansion into urban areas of the Northeast region and other regions of the country. Thus, it is necessary to study this pathology in the state of Maranhão, due to its classification as an endemic area, aiming to improve early identification in the main risk groups. The objective of this study is to describe the epidemiological profile of visceral leishmaniasis in the state of Maranhão between the period of 2012-2022. **METHODS:** This is a descriptive, retrospective, and quantitative study on cases of Visceral Leishmaniasis in Maranhão between 2012 and 2022. Secondary data available at the Department of Health Informatics of the Unified Health System (DATASUS) were used, processed in the Microsoft Excel® program for analysis regarding sex, age, education level, race, parasitological and immunological diagnosis, health regions, and disease progression. **RESULTS:** Between 2012-2022, 5952 cases of visceral leishmaniasis were recorded in Maranhão, with the northern macro-region responsible for 55% of the state's cases. During this period, the state accounted for approximately 31% of cases in the Northeast Region. Around 66% (N=3920) were male, with 77% (N=4,597) being mixed race. The most frequent age group was 1-4 years, representing 30% (N=1778) of the cases. Regarding disease progression, 63% (N=3732) resulted in cure, and 7% (N=435) resulted in death. **CONCLUSION:** There was a predominance of cases in male patients, of mixed race, and age between 1 and 4 years. Despite the majority of cases progressing to clinical cure, lethality is still considerable. Therefore, a more effective disease control in the state is necessary, aiming for early identification and transmission reduction. Thus, the population should be involved in the prevention and control process of the disease through health and environmental educational actions, in order to optimize the effectiveness of surveillance and control actions of visceral leishmaniasis.

148. **PRECURSOR LESIONS AND CERVICAL CANCER IN BRAZIL – A LITERATURE REVIEW**

Antônia Letícia Nunes Pontes Lima<sup>1</sup>, Pedro Henrique de Oliveira Cavalcante<sup>1</sup>, Rebeca Grangeiro Barroso<sup>1</sup>, Priscilla Malena Albuquerque de Souza<sup>1</sup>, Lorrana Mirelley Pereira de Melo<sup>1</sup>, Gabriel Paes Landim Sousa<sup>1</sup>, Douglas Soares da Costa<sup>1</sup>

<sup>1</sup>Faculdade Pitágoras de Bacabal

**INTRODUCTION:** Cervical cancer (CC) is characterized by the abnormal proliferation of cells in the epithelial lining that covers the cervix. It ranks as the third most prevalent cancer among women in Brazil. Beyond its impact on the cervix itself, CC can infiltrate adjacent or distant structures. Consequently, the importance of diagnosing and monitoring precursor lesions linked to a common factor—the Human Papillomavirus (HPV)—has grown significantly. This study aims to analyse the primary risk factors associated with CC in women, considering their socioeconomic profiles, alongside early lesion detection strategies. **METHODS:** This integrative literature review focuses on original articles written in Portuguese and published in the MEDLINE, LILACS, and SciELO databases between 2019 and 2023. The study applies specific exclusion criteria to ensure compliance with pre-established parameters. **RESULTS:** The primary risk factors identified in the consultation sources were early and unprotected sexual intercourse, continuous use of contraceptive pills, exposure to HPV and other sexually transmitted infections, smoking, as well as the non-performance of regular gynecological consultations and examinations. Regarding the predominant profile of cervical cancer (CC) cases, studies have indicated that the most affected age group is 40 to 59 years old and had three or more pregnancies before diagnosis. Furthermore, the frequently encountered result in oncologic colposcopy examinations was high-grade squamous intraepithelial lesion (HSIL), and the prior diagnosis of these pre-malignant cervical changes provides a more favorable prognosis for cases of CC. It was also noted that the HPV subtypes most associated with persistent infections that can lead to CC are HPV-16 and HPV-18. Regarding the socioeconomic parameter, it is evident that women in socially vulnerable situations, with low levels of education and residing in rural areas, are more predisposed to develop this neoplasm. **CONCLUSION:** Consequently, the findings elucidate that perimenopausal age, exposure to HPV-16 and HPV-18 subtypes, early onset of sexual activity without condom usage, insufficient screening, and treatment of precursor lesions, multiparity, and low socioeconomic status are the predominant characteristics observed in women who develop cervical cancer (CC).

**149. DATA SURVEY ON BRACHIAL PLEXUS MICROSURGERIES IN BRAZIL FROM 2013 TO 2022**

Murilo Freitas e Silva Filho<sup>1</sup>, João Eduardo Gomes Barros<sup>1</sup>, Ohana Camila Lins Siqueira Almeida<sup>1</sup>, Leticia Maria Leal Barros<sup>1</sup>, Lucas Martins Castro<sup>1</sup>, Igor Gustavo da Silva Melo<sup>1</sup>, Diogo Silva de Moraes<sup>2</sup>.

<sup>1</sup>Universidade Federal do Maranhão, student

<sup>2</sup>Hospital da Ilha

**INTRODUCTION:** Brachial plexus injury is a serious dysfunction in the upper limbs due to trauma that affects the roots of the cervical spine. They are frequently seen in motorcycle accidents, especially in young men. The evolution of the microsurgery technique has become a strong addition to treatment, providing advances in the dissection, alignment and grafting of peripheral nerves. This study aims to analyze the performance of brachial plexus microsurgeries in Brazil, over a decade-long period. **METHODS:** Ecological study with a quantitative approach. The collection was carried out by the Hospital Information System of the Unified Health System (SIH/SUS), made available by DATASUS. Procedures related to brachial plexus microsurgery with neurolysis and micrografting were included, from January 2013 to December 2022. The variables considered were "Year of Processing", "Hospitalizations", "Average Stay", "Mortality Rate" and "Region". After data extraction, statistical analysis was carried out using Microsoft Excel software. **RESULTS:** Regarding microsurgeries carried out nationwide in the period, 5,967 hospitalizations were identified, of which 3,001 (50.3%) are related to exploration and neurolysis procedures and 2,966 (49.7%) to micrografting procedures. As for the region, the Southeast predominated, with 49.3% (2,940) of the total, while the lowest value was the North, with 4.3% (257). In relation to the Year of Processing, the values maintained a pattern above 600 cases per year until 2019, the year with the highest number, with 676 (11.3%) hospitalizations, falling from 2020, the year with the lowest number, 380 (6.3%), converging with the recently experienced pandemic period. The average hospital stay was 3.4 days, with little fluctuation between years (SD=0.42). The average value of the procedures is equal to 1,241.43 reais, also showing little fluctuation (SD=31.16). Only 2 deaths were identified, in the years 2019 and 2020. **CONCLUSION:** It is inferred that, in the period in question, an equivalence was found regarding the technique chosen for microsurgery, in addition to the total predominance of the Southeast, indicating compatibility with socioeconomic factors. The procedure showed a decline after the pandemic period, pointing to a possible interference from this fact. Furthermore, it proved to be safe and provides quick recovery for patients, in addition to having an average value slightly lower than the minimum wage.

**150. YEASTS ASSOCIATED WITH THE DEVELOPMENT OF AUTOIMMUNE DISEASES: A LITERATURE REVIEW**

Livia Medrado Fialho<sup>1</sup>, João Pedro Cruz Nascimento<sup>2</sup>, Joana Tenorio Albuquerque Madruga Mesquita Meireles Teixeira<sup>1</sup>, Nathalia Chaves Bezerra<sup>1</sup>, Ana Clara de Carvalho Costa<sup>2</sup>, Marliete Carvalho da Costa<sup>1</sup>

<sup>1</sup>Centro Universitário do Maranhão

<sup>2</sup>Universidade Federal do Maranhão (São Luís)

**INTRODUCTION:** Understanding the role of fungi in the development of autoimmune diseases has become increasingly important in scientific research, as recent studies have revealed that fungal infections can trigger inflammatory and immune responses. Yeasts, such as *Candida albicans*, *Saccharomyces cerevisiae*, and the *Malassezia* genus, are microorganisms that coexist in our body, but emerging evidence suggests that, under certain circumstances, they play a crucial role in triggering autoimmune diseases. The aim of this study is to gather and analyze the main relationships between these fungi and the development of these diseases. **METHODS:** This study is a literature review guided by the survey and analysis of 20 articles, published between 2020 and 2023, through databases such as PubMed, LILACS, MEDLINE, SciELO, and Springer using the descriptors "yeast", "autoimmune", and "disease". **RESULTS:** In the literature survey, it was noted that the yeasts that stand out most in processes associated with autoimmune diseases are *Candida albicans*, *Saccharomyces cerevisiae*, and the *Malassezia* genus. *Candida albicans* and its enzymes can act in myelin degradation, a process characteristic of Multiple Sclerosis. Its presence in the central nervous system (CNS) can result in chronic inflammation and excessive production of beta-amyloid protein, characteristic of Alzheimer's Disease. Furthermore, still in the CNS, this yeast can lead to the activation of glial cells and production of neurotoxins associated with the death of motor neurons, worsening the development of Amyotrophic Lateral Sclerosis. *Malassezia* genus: The presence of *Malassezia* in the brain can lead to the activation of glial cells, production of melanin, and death of dopaminergic neurons, contributing to the progression of Parkinson's Disease. *Saccharomyces cerevisiae*: in this case, although anti-*S. cerevisiae* antibodies (ASCAs) are considered specific for Crohn's disease, a growing number of studies have detected elevated levels of ASCAs in patients affected by autoimmune diseases compared with healthy controls, including Systemic Lupus Erythematosus, Type 1 Diabetes, and Sjögren's Syndrome. **CONCLUSION:** With this survey, it is possible to highlight the role of these yeasts in the development of significant autoimmune diseases in health and the need for more studies in the area aiming at the modulation of mechanisms involving the interaction of these microorganisms with the human host.

151. **SYSTEMIC LUPUS ERYTHEMATOSUS WITH PULMONARY COMPLICATIONS AND HEART STUDY: A CASE STUDY**

Karla Valeria Lima Santos de Queiroz<sup>1</sup>; Anyelle Araujo Cardoso Bento<sup>1</sup>; Augusto Hipólito Chagas Freato<sup>1</sup>; Beatriz Lana Silva Souza<sup>1</sup>; Biana Laís Oliveira Cardoso<sup>1</sup>; Leandro Guimaraes Borges<sup>1</sup>; Maria Raimunda Chagas Silva<sup>1</sup>.

<sup>1</sup>Ceuma

**INTRODUCTION:** Systemic Lupus Erythematosus(SLE) is a inflammatory autoimmune rheumatic disease, multisystemic, chronic, characterized by production of antibodies directed against proteins of the organism itself. This condition affects predominantly women of age reproductive. Symptoms can vary widely and can affect different body systems. Your etiology includes the participation of hormonal factors, environmental, genetic and immunological emergence of the disease. The clinical characteristics are polymorphic, and evolution is usually chronic, with periods of exacerbation and remission. **DISCUSSION OF THE CASE:** A.C.A.A, 42 years old, female, domestic worker, resident of São Luís-MA was hospitalized due to respiratory decompensation, skin lesions, joint pain, alopecia, and weight loss, diagnosis of systemic lupus erythematosus with severe pulmonary hypertension and communication interatrial surgery, which chose to perform atrioseptoplasty with partial improvement of the condition. On physical examination, dyspneic in room air using a mask O2 4l/min concentrator. This case highlights the complexity of SLE and its manifestations variables that can affect different systems of the body. A multidisciplinary team is essential for management, given that professionals must work together to provide treatment coordinated and comprehensive. **FINAL CONSIDERATIONS:** The management of SLE, especially in severe cases with pulmonary and cardiac complications, requires a medical team and treatment carefully planned. Early diagnosis, effective treatment and regular follow-ups are crucial to improving the quality of life of affected patients and minimize the impact of its complications.

152. **MALARIA IN THE AMERICAS: EPIDEMIOLOGY, PREVALENCE AND GEOGRAPHICAL DISTRIBUTION**

Gamaliel Gama Sanches Silva Júnior<sup>1</sup>, Flávio Augusto de Alencar Oliveira<sup>1</sup>, Layra Giovana Carvalho Camara<sup>1</sup>, Layssa Ellen Marinho Barbosa<sup>1</sup>, Jheniffer Santos da Silva<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>

<sup>1</sup>Universidade Federal do Maranhão – UFMA

**INTRODUCTION:** Malaria is an infectious disease transmitted by mosquitoes of the genus *Anopheles* and is considered one of the main causes of morbidity and mortality in various regions of the world. In the Americas, this disease affects millions of people and imposes a considerable socio-economic burden. The article therefore takes a comparative epidemiological view of malaria in the Americas, seeking to understand the risks and factors that influence the development of the disease. **METHODS:** An ecological, exploratory study with a comparative approach was carried out between 2010 and 2019. Data was collected through PLISA (Health Information Platform of the Americas) from information on the number of confirmed cases, hospitalizations and deaths among Pan-American countries. **RESULTS:** In the period analyzed, approximately 6.1 million cases were recorded, with an average of 600,000 cases per year. There is a significant variation between countries, with Venezuela accounting for 37% (n=2296191), Brazil for 32% (n=1984719) and Colombia for 11% (n=671508), which together account for approximately 80% of the total analyzed. Venezuela has the highest death rate (n=1068000). Brazil, despite the number of cases, had 481 deaths from the disease. As for transmission, the most common species is *Plasmodium vivax* (approximately 4.1 million), with a high incidence of *Plasmodium falciparum* (1.2 million) in the diagnostic profile. With regard to hospitalizations, Venezuela, Brazil and Nicaragua have high rates, together accounting for more than 90% of all hospitalizations. The coefficient of variation, expressed in percentage terms, is 133.65%. This high variability indicates the disparity between countries in terms of malaria incidence. **CONCLUSION:** The magnitude of the number of confirmed cases in countries with a low Human Development Index (HDI), such as Venezuela, intensified by precarious health approaches and prevention measures, limited access to medical services and excessive financial expenditure on hospitalizations, make this pathology a relevant health issue that needs greater visibility and appropriate support for the treatment of infected individuals. Government investment is therefore essential, not only in public health policies, but also in environmental and social ones, in order to guarantee a holistic approach to the disease.



**153. DERMAL REGENERATION MATRIX: A PROMISING OPTION IN BURN TREATMENT**

Maria Eduarda Brito Amaral<sup>1</sup>, Rayssa Yasmin Pereira Sauaia<sup>2</sup>, Bruno Eduardo Lopes de Macêdo<sup>1</sup>, Bruna Ory Pinto Bandeira<sup>1</sup>, Pedro Durante Junqueira<sup>1</sup>, Ingrid Victoria Borges Alberto<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>

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**INTRODUCTION:** Burns are traumatic injuries caused by thermal, chemical, electrical, biological, or radioactive agents and represent an important public health issue. Among the treatment possibilities, surgical procedures for skin reconstruction are used, employing grafts or substitutes such as dermal matrix, which enhances cell proliferation and preserves intrinsic skin properties, thereby reducing the chances of rejection. This study aimed to evaluate the evidence of dermal matrix as a relevant option in burn treatment. **METHODS:** A systematic review using scientific articles regarding the use of dermal regeneration matrix for burn injury treatment, constructed from publications found in the databases "PubMed," "Scielo," and "MDPI Journals." Six studies were selected in Portuguese and English, prioritizing those published in the last 5 years. **RESULTS:** The dermal regeneration matrix is formed by a porous layer composed of cross-linked bovine collagen and chondroitin-6-sulfate, serving as a model for skin regeneration. The process involves fibroblast infiltration into the matrix, forming a "neoderm" with gradual neovascularization. This structure may also include a silicone layer acting as the epidermis, controlling water loss and preventing infections. The literature indicates that the success of the technique is due to the decellularization process during its production, which minimizes immune-induced inflammation, hinders the biodegradation process of the transplanted material, and allows the patient's own cells to populate the matrix. Of the articles studied, 3 (n=50%) made comparisons between the use of the matrix and other types of treatment, confirming its validity as a successful option. Furthermore, the reduction in rejection rates was observed in all the articles (n=100%), demonstrating the therapeutic effectiveness in the rapid and functional recovery of burn patients. **CONCLUSION:** The matrix is a cutaneous substitute that promotes dermal regeneration, the deeper layer of the skin, with low rejection rates and infection prevention, conditions that affect the integrity of reconstructions. Therefore, the use of this technique proves to be an effective solution for treating sequelae in patients suffering from complex burns.

**154. MAXILLA AFFECTED BY OSTEOSARCOMA: CASE REPORT**

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<sup>2</sup>Docente Universidade Ceuma

**INTRODUCTION:** Osteosarcoma is one of the most common malignant tumors in childhood and adolescence, as it is characteristic of immature bone tissue. In this sense, histologically, it originates from osteoblast cells, which begin to show structural disorganization and various atypias, giving the tumor infiltrative capacity and rapid expansion. Clinically, it is associated with local pain, facial asymmetry, bone alterations and loss of function. The main sites of the pathology are in the long bones of the lower limbs, the axial skeleton to a lesser extent and, in the maxilla, which is more prevalent in males, this pathology is considered even rarer, difficult to treat and has an unfavorable prognosis. This report was authorized by the Research Ethics Committee (CEP) under registration number 5.085.992. **DESCRIPTION:** Patient V.S.R, male, 28 years old, who attended the outpatient clinic due to an increase in volume in the lateral region of the maxilla, which had progressed slowly and with no specific painful symptoms. Physical examination revealed a slight facial asymmetry with a slight bulging in the vestibular region of the premolars and molars on the left, with a hard consistency and no history of local trauma. After a CT scan and subsequent biopsy, he was diagnosed with osteosarcoma. Total resection of the lesion with safe margins is the gold standard treatment, often complemented by radiotherapy and chemotherapy in order to optimize the effectiveness of the results obtained. However, due to the late diagnosis and the postponement of treatment, the patient died, even after following the established protocol, since his case was quite complex and difficult to resolve due to the extent of the tumor. **CONCLUSION:** It is therefore clear that an early diagnosis is fundamental, since early detection of the disease makes it possible to implement treatment, resulting in greater chances of resolution. The main therapy is based on surgical extraction and chemotherapy, so that the patient can recover fully. However, it is recognized that depending on the extent of the lesion, the resection area can be substantial, which would invariably affect the quality of life of the affected patient.

**155. MENOPAUSE AND KLOTHO: NEW PERSPECTIVES FOR LONGEVITY AND HOMEOSTASIS**

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**INTRODUCTION:** Menopause, a significant biological milestone characterized by the cessation of menstruation, ushers in an era of metabolic and physiological challenges due to reduced ovarian activity. Simultaneously, the Klotho protein emerges as a regulatory bulwark in the aging process, crucial for longevity and resistance to age-related disorders. Hormonal disruption, especially the reduction of estrogen during menopause, has systemic consequences, increasing the propensity for cardiovascular complications and bone fragility. This study aims to carry out a bibliographical survey regarding the interaction between the pathophysiology of menopause and the involvement of Klotho proteins. **METHODS:** An active search was carried out in the Scielo and Pubmed databases during October 2023, applying the descriptors "menopause", "klotho", "menopausa", "klotho proteins", "climacteric", "estrogen", applied using the Boolean operator "AND" as an inclusion criterion, articles published in Portuguese from 2017 to 2023 were used. Duplicates and gray literature were excluded. **RESULTS:** The analysis shows that the action of the Klotho protein has a significant impact on the physiological manifestations of menopause. The complexity of the menopause-Klotho interaction is highlighted, underlining its potential relevance in innovative therapeutic strategies, especially in the context of exacerbated neurodegeneration during this period. The study points to a paradoxical window of therapeutic opportunities, enhanced by Klotho modulation, which emerges from hormonal dysregulation and metabolic and systemic changes concomitant with menopause. **CONCLUSION:** This research highlights the multifactorial interaction between menopause and the Klotho protein, illustrating a new frontier in biogerontology and translational medicine. It signals an urgency for subsequent research that deepens understanding of the symbiotic relationship between Klotho and estrogen. This exploration promises to inform the development of interventions that mitigate the risks associated with menopause, paving the way for significant advances in the management of women's health during menopause.

**156. INTESTINAL MICROBIOTA AND RISKS ASSOCIATED WITH CARDIOVASCULAR COMPLICATIONS**

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**INTRODUCTION:** From an early age we are colonized by developing communities. In the intestinal tract, they constitute the largest microbial ecosystem close to our heart: our inner microbes. The combination of gut microbiota and metabolic transformations in the host contribute to our overall metabolism and to inter-individual variations in metabolism. The microbiota adjusts itself as a filter of our environmental exposures. Thus, this study aims to describe the intestinal microbiota and the risks associated with cardiovascular complications. **METHODS:** This study is a literature review carried out using health databases such as the National Library of Medicine, Google Scholar, Scientific Electronic Library Online and the Virtual Health Library. A study was carried out in March and April 2023, where keywords were selected, following the Health Sciences Descriptors, selecting the most pertinent ones from the last five years. **RESULTS:** The intestinal wall houses both beneficial and pathogenic bacteria, forming the microbiome, and for the intestine to function properly there needs to be a balance between these populations. Since an imbalance results in the modification of this microbiota and an increase in pathogens that lead to a greater risk of cardiovascular disease (CVD), the metabolism subordinated to the microbiome can also lead to the production of metabolites such as N-oxide-trimethylamine (TMAO), a toxin whose accumulation can lead to a greater threat of thrombosis and atherosclerosis. Bacterial products such as short-chain fatty acids (SCFA), secondary bile acids and components of the cell membrane of Gram-negative bacteria can influence the pathogenesis of CVD. Also noteworthy are conditions such as inflammation, leaky gut, and the influence of the microbiome on adipogenesis, which plays an important role in the development of CVD, corroborating the emergence of metabolic and hemodynamic disorders that increase cardiovascular risk. **CONCLUSION:** CVD represents a serious public health problem, where the intestinal microbiota has a relevant impact on cardiovascular mortality. This study revisits the importance of this issue in order to understand and highlight the possible causes, therapeutic and prophylactic perspectives that can be elucidated from in-depth knowledge of the subject.

**157. MINI-PPLICATION FOR TREATMENT OF SMALL HORIZONTAL STRABISMUS**

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(CEP/CAAE Report: 80510117.1.0000.5086). **INTRODUCTION:** In this paper, we describe the application of the innovative surgical technique known as mini-plication - a procedure used for the treatment of small ocular deviations. Mini-plication involves increasing the tension of the rectus muscle - by means of a small pleating of its middle fibers - aiming to correct strabismus of small angles. This case report describes the experience of a patient undergoing this surgical technique, which resulted in the complete correction of his deviation. This article seeks to provide valuable observations on the reliability and benefits of the mini-plication technique in the treatment of small-angle strabismus. **CASE DESCRIPTION:** In June 2023, a 49-year-old male patient, without systemic alterations, with 12 prism diopters esotropia and horizontal diplopia in all nine gaze positions, with fusion in the objective measurement of the deviation, was operated using the mentioned technique. Mini-plication of both lateral rectus muscles was performed, following the technique described by an American ophthalmologist. **CONCLUSION:** The efficacy of mini-plication is evidenced by the success of this case, as the patient had his deviation corrected and did not present diplopia after the surgical intervention.

**158. MISOPHONIA AND ITS RELATIONSHIP WITH BEHAVIORAL DISORDERS: A LITERATURE REVIEW**

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**INTRODUCTION:** Misophonia is a neurological and behavioral syndrome characterized by physiological hyperstimulation of the brain and a negative and disproportionate emotional response caused by a decrease in auditory tolerance to certain patterns of noises and sounds. In view of the chronic difficulty in emotional regulation, a possible relationship has been identified between misophonia and the development of behavioral disorders such as anxiety, depression, obsessive-compulsive disorder (OCD), among others. This study aims to clarify this relationship. **METHODS:** This is a literature review in which scientific articles published in the PubMed database between 2019 and 2023 were selected. The descriptors "misophonia" and "behavioral disorders" were combined using the Boolean operator AND, according to the PRISMA guidelines. A total of 58 articles were found, of which 7 met the selection criteria and are therefore included in this study. **RESULTS:** The serial mediation analysis showed that difficulties in emotion regulation, anxiety and hostile attributions are significant mediators in the relationship between misophonia and some disorders. Studies suggest that its physiological basis is related to hyperactivity in regions of the insula, cingulate gyrus, amygdalae and motor areas of the brain. Anxiety disorders were the most prevalent category, with 56.9% of the sample meeting all the criteria for at least one current anxiety disorder, mainly social anxiety disorder (30.9%) and generalized anxiety disorder (24.6%). Mood disorders were the second most prevalent type of disorder, with 14.2% meeting full criteria for at least one current mood disorder, most notably persistent depressive disorder (7.6%) and major depressive disorder (6.6%). Rates of OCD were reported in 14% of patients with misophonia. **CONCLUSION:** Misophonia is a neurobehavioral syndrome whose symptom severity can be associated with various psychological symptoms and characteristics, and is mainly associated with anxiety and depression. However, it is not possible to define misophonia as a psychiatric disorder, since there is still little research on the subject, making it speculative to describe it as a characteristic or concomitant syndrome related to specific psychiatric disorders or classes of disorders.

159. **MONITORING PATIENTS WITH PSEUDOTUMOR CEREBRI: AN INTEGRATIVE LITERATURE REVIEW**

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**INTRODUCTION:** Pseudotumor cerebri, also described as idiopathic intracranial hypertension (IIH), is a clinical condition characterized by an abnormal increase in intracranial pressure (ICP) with no apparent cause. The clinical management of this disease is multifaceted, encompassing pharmacological strategies and invasive procedures. Monitoring IIH is essential for assessing ICP, involving methods such as lumbar puncture and neuroimaging tests. This review aims to address the various means of monitoring IIH and their influence on the management of patients with this condition. **METHODS:** Integrative literature review on the PUBMED and Biblioteca Virtual em Saúde (BVS) platforms, searching for articles published between 2018 and 2023 that fit the theme of our review, using the following sequence of descriptors: ((Assessment) AND (Pseudotumor cerebri)). **RESULTS:** The screening of studies compatible with our proposal resulted in 6 articles, 3 of which were extracted from PUBMED and 3 from the BVS. In the studies evaluated, the presence of neuroradiological signs of IIH on both MRI/MRV and CT/CT were highly specific ( $\geq 95\%$ ) and moderately sensitive ( $\leq 75\%$ ) for the diagnosis of IIH in patients with papilledema. MRI findings included partially empty sella, sheath distension and vertical tortuosity of the optic nerve, posterior flattening of the eyeball, size of the occipital emissary vein. The invasive techniques mentioned in the articles have allowed for a better assessment of the intracranial venous system, as they check for focal vascular stenoses that may require endovascular treatment. Current clinical follow-up allows ICP monitoring through methods such as telemetric ICP devices, verification of changes in papilledema seen on optical coherence tomography (OCT), as well as visual deterioration seen on visual evoked potentials (VEP) and the use of multifocal electroretinography (mfERG). **CONCLUSION:** Monitoring ICP in patients with IIH can be done by analyzing neuroradiological signals, which are highly specific but not very sensitive and should be used individually. In some patients, invasive analysis techniques may be more recommended. Furthermore, new studies focusing on strategies for the analysis and management of these patients are essential.

160. **CATARACT AND OTHER CRYSTALLINE DISORDERS MORBIDITY, IN MARANHÃO FROM 2018 TO 2022**

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**INTRODUCTION:** Cataracts are the world's leading cause of blindness, affecting around 10% of people. It can be congenital or acquired, the etiology of which is not yet well defined, but is related to infection during pregnancy, advanced age, use of toxic substances, metabolic syndromes, radiation, ophthalmopathies, among others. The first symptoms of the disease are related to the sensation of progressive loss of visual acuity and as it progresses, a white or yellowish spot can be seen in the center of the pupil. This work aimed to study the profile of hospital morbidity due to cataracts in Maranhão, from 2018 to 2022. **METHODS:** Epidemiological, quantitative, descriptive, time series study (2018-2022), with secondary data from TABNET-DATASUS-SUS Hospital Morbidity (SIH/SUS). Variables under study: Cataracts and other lens disorders; Service: Year; Character; Microregion according to IBGE; Sex; Age group; Race. **RESULTS:** There were n=6475 hospitalizations for cataracts in the period in Maranhão. The IBGE microregion with the most assistance was Codó (n=2301), followed by Caxias (n=1985), while the Urban Agglomeration of São Luís was third (n=1705). The years with the highest number of services were 2021 (n=2013), and 2020 (n=1806), which together represent 59% of total services. Regarding gender: female (n=3476); male (n=2999). Among the most affected age groups: 50 to 59 years old (n=1025), 60 to 69 years old (n=2635) and 70 to 79 years old (n=1889), which represented 85% of the sample. Regarding race: more common in brown (n=3452) and yellow (n=541), equivalent to 61%. **CONCLUSION:** The epidemiological profile of hospital morbidity due to cataracts in Maranhão follows the trend of other studies, with a predilection for females, more frequent in more advanced age groups and with an increase in demands in recent years, with less developed cities accumulating demands, without ease of execution of procedures. Therefore, it is necessary that the interior of Maranhão benefits from actions aimed at making the treatment of this disease viable, to provide a better quality of life for this portion of the population.

**161. HOSPITAL MORBIDITY FROM INTRACRANIAL TRAUMA IN BAIXADA MARANHENSE IN 2022**

Pedro Henrique Delfim Pessoa<sup>1</sup>, Brunna Araújo dos Santos<sup>1</sup>, Adeany Yasmim Morgado Reis<sup>1</sup>, Lucas Guilherme Macedo Guterres<sup>1</sup>, Marcelle Teixeira e Silva<sup>1</sup>, Emanuele Cristine Santos Marinho<sup>1</sup>

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**INTRODUCTION:** Intracranial trauma (ICT) is defined by a set of injuries, generally characterized by physical impact trauma. As a pathophysiological repercussion, it potentially affects the various tissues that make up the brain, in addition to having a notable debilitating capacity. Due to the cultural and public service context of Baixada Maranhense - marked by the use of motorcycles without wearing helmets, in addition to the incipience of municipal authorities in curbing this habit - ICT still appears as an important challenge for regional public health. Therefore, the present work aims to analyze the main characteristics involving hospital morbidity regarding ICT in Baixada Maranhense in the year 2022. **METHODS:** This is a descriptive and retrospective study, the execution of which is supported by a systematic search on the portal of DATASUS, in a specific segment for the TIC, in the area reserved for Intra-Hospital Morbidity, being further categorized according to the patient's color/race. **RESULTS:** During the period, there were a total of 192 Hospital Admission Authorizations (AIH), of which 186 (96.87%) referred to self-declared brown patients. These also cover a total of 8 deaths resulting from ICT, which represents a mortality rate of 4.30%. Regarding hospital stay, while brown patients spent an average of 5.2 days in hospital, white and black patients stayed, respectively, 17.5 and 17 days. Within the scope of the total values referring to AIH, white patients expressed an average cost of R\$5,592.07, while those of the black race, R\$672.72, which represents a ratio of 8.31 between such values. Regarding the value of professional services provided, despite the similarity between the average days of stay in a hospital context, black patients had an average cost of R\$101.96, while white patients R\$827.53. Furthermore, despite portraying all deaths due to ICT (8), brown patients obtained professional service coverage worth R\$235.17, expressing a ratio of 3.51 in relation to white patients. **CONCLUSION:** It is observed, therefore, that ICT is a pathological event that has nuances of a social nature, which can be noted through the analysis of discrepancies involved in the intra-hospital monitoring of patients of different color/race. Therefore, there is a need to carry out new studies to scrutinize these differences.

**162. MORTALITY RATE DUE TO MALIGNANT BLADDER NEOPLASMS IN BRAZIL OVER THE LAST 5 YEARS.**

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**INTRODUCTION:** Malignant bladder neoplasia (MBN) ranks as the tenth most common cancer globally and the second among genitourinary cancers. This study aims to examine epidemiological data related to MBN, identifying morbidity and mortality and analyzing the obtained results. **METHODOLOGY:** Epidemiological, descriptive study covering the period from January 2019 to August 2023, utilizing secondary data from the Hospital Information System (SIH). The analysis includes the number of hospitalizations and deaths due to MBN in Brazil, considering region, race, and gender. **RESULTS:** During the analyzed period, there were a total of 94,205 MBN-related hospitalizations and 5,867 deaths, resulting in a mortality rate of 6.22%. The Southeast region had the highest prevalence of hospitalizations (56.76%), while the North region had the lowest (1.99%). This regional pattern also applies to deaths. The disease's prevalence in the white population accounted for 52.69% of hospitalizations and 49.61% of total deaths. Males represented almost 70% of hospitalizations and 67.34% of deaths. Across age groups, there was a significant increase in cases from ages 40-49, peaking with over 30,000 hospitalizations in the 60-69 age group. Deaths were highest in the 70-79 age group, comprising 32% of total death. **CONCLUSION:** The data suggests a higher incidence of MBN in the Southeast, likely due to robust reporting with better organizational resources. Conversely, regions like the North exhibit underreporting, reflected in lower rates compared to the overall average. MBN predominantly affects the white population, aligning with existing literature. Males are more affected, largely attributed to high tobacco consumption, a primary risk factor. Elderly individuals are more susceptible due to weakened health and accumulated tobacco exposure. Cold analysis of these data underscores the need for improved reporting and more effective diagnostic means to serve the population.

163. **EPIDEMIOLOGICAL ANALYSIS OF MORBIDITY AND MORTALITY DUE TO UROLITHIASIS IN BRAZIL, A REVIEW OF THE LAST 5 YEARS**

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**INTRODUCTION:** Urolithiasis is the third most common cause of urinary tract disease; however, among all urinary tract conditions, it is the leading cause of morbidity. This pathology involves the formation of solid deposits composed of crystallized substances that are normally excreted in urine. Thus, considering that urolithiasis has a high impact on society, there is an extreme importance in epidemiologically analyzing its morbidity and mortality in the Brazilian territory. **METHODOLOGY:** A descriptive, quantitative study was conducted using secondary data from the Hospital Information System (SIH) on hospital morbidity from the Brazilian Public Health System (SUS) due to urolithiasis from August 2018 to August 2023. The variables studied were: "gender," "race," "region," "deaths," "year of hospitalization," and "detailed age group." **RESULTS:** During the sample period, 60,128,322 hospitalizations due to urolithiasis were registered, resulting in 3,087,888 deaths. The years with the highest hospitalization cases were 2019 and 2022 with 12,185,437 and 12,363,072 cases, respectively. The age groups with the highest prevalence were 20-29 (N=10,291,055), 30-39 (N=8,287,297), and 60-69 (N=7,223,249). The Southeast (N=23,758,327) and Northeast (N=15,966,080) regions had the highest numbers, while the North region had the lowest with 5,136,577. The incidence was higher in women at 57.86% (N=34,795,103) and in browns at 41.86% (N=25,172,671). **CONCLUSION:** In view of the presented data, the importance of analyzing the morbidity and mortality of urolithiasis in Brazil is evident. Regarding age group, there is alignment with literature, as urolithiasis affects individuals aged 20 to 40, despite also observing an elevation in the older population. For the regional variable, there is a discrepancy with literature, which identifies hot and dry climate as a risk factor, while the survey shows lower incidences in warmer regions (Northeast and North) than the Southeast, possibly due to underreporting in these areas. Furthermore, the predominance in women and browns underscores the need for further investigation, considering that white men are generally associated with a higher likelihood of calculus formation according to literature. Therefore, these data underpin prevention and treatment plans aimed at reducing the social and economic impact of urolithiasis in Brazil.

164. **MORTALITY AND HOSPITALIZATIONS DUE TO CERVICAL CANCER: MARANHÃO IN THE REGIONAL SCENARIO**

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**INTRODUCTION:** Cervical cancer (CC) is the result of persistent infection with certain types of human papillomavirus, transmitted sexually. According to the National Cancer Institute, CC is the fourth leading cause of cancer death in women in Brazil. Thus, this study aims to describe mortality and hospitalizations due to cervical cancer in the state of Maranhão and compare it with the Northeast region of Brazil. **METHODOLOGY:** This is a descriptive time-series study on cervical cancer in the Northeast and Maranhão, comparing the two regions from 2015 to 2021. Data were obtained from the Unified Health System Hospital Information System (SIH/SUS) and the Cancer Mortality Atlas from INCA. The variables studied included mortality rate, total hospitalizations, age group of hospitalizations, and expenditures related to the disease. **RESULTS:** Maranhão had the highest CC mortality rate in all age groups for women aged 30 and older, with a crude rate of 9.59% between 2015 and 2021, while the entire Northeast maintained a crude rate of 6.79%. Additionally, Maranhão had 8,357 hospitalizations, representing 16% of the total in the Northeast, which was 51,513 hospitalizations for all ages during this period. Regarding hospitalizations by age group, Maranhão ranked third among Northeastern states in the number of hospitalizations for women aged 20 and older, behind Pernambuco and Bahia, respectively. In the 30 to 39 age group, the highlighted state recorded 1,844 hospitalizations, while Pernambuco had 2,972 and Bahia had 2,028. Finally, the highlighted state led in hospital expenses related to CC in the Northeast, representing about 22% of the total spent by all states in the region, equivalent to approximately BRL 24,025 million out of a total of BRL 106,848 million. **CONCLUSION:** Therefore, it is concluded that the state of Maranhão leads in mortality and hospital expenses related to malignant neoplasia of the cervix in the Northeast, also registering the third-highest number of hospitalizations for this disease in the region. This is due to the late diagnosis of cancer, resulting from a precarious healthcare system focused on cure rather than prevention. Thus, it is essential to promote health policies that encourage early diagnosis of this neoplasia, aiming to reduce the indicators of this study.

**165. HOSPITAL MORTALITY DUE TO ACUTE MYOCARDIAL INFARCTION IN MARANHÃO FROM 2013 TO 2023**

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**INTRODUCTION:** Acute myocardial infarction (AMI) is the necrosis of the myocardial cell due to ischemia resulting from the acute occlusion of a coronary artery. AMI occurs with characteristic symptoms, generally starting with retrosternal pain that radiates to the back, jaw or left arm, in addition to being accompanied by dyspnea, diaphoresis, nausea and/or vomiting. It is a disease with a high morbidity and mortality rate and, therefore, a challenge for public health. Therefore, the objective of the study is to analyze mortality due to AMI in the state of Maranhão in the last 10 years. **METHODS:** This is a cross-sectional and retrospective study of hospital deaths due to AMI between August 2013 and August 2023 in the state of Maranhão. Data from the Hospital Information System (SIH/DATASUS) were used, with analysis of the variables: age group, sex, race and hospital mortality. **RESULTADS:** Between August 2013 and August 2023, the state of Maranhão recorded a total of 1,854 deaths from acute heart attacks in hospital services, with 2021 being the year with the highest number of cases (n=220). In relation to age group, the most affected were elderly people between 70 and 79 years old with 27.4% (n=509). As for gender, males were the most affected, recording 57% (n= 1,059) of cases. Regarding race, the highest rate was related to brown people, with a total of 37% (n= 688) of deaths. **CONCLUSION:** Through epidemiological data taken from the SIH/DATASUS platform, it was possible to observe that AMI is an important cause of hospital mortality in the state of Maranhão, as well as the elderly male population being the most affected, according to the literature.

**166. HOSPITAL MORTALITY DUE TO HEART FAILURE (HF) IN MARANHÃO FROM 2013-2022**

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**INTRODUCTION:** Heart Failure (HF) is a clinical syndrome characterized by the heart's inability to pump enough blood to attend the metabolic needs of tissues. It accounts for 4% of total hospital admissions in Brazil and 31% of cardiovascular-related admissions in the country. Considering the increasing prevalence of HF worldwide and the scarcity of research on the topic, the study aims to describe hospital mortality due to HF in the state of Maranhão from January 2013 to December 2022. **METHODS:** This is an epidemiological study with a retrospective, descriptive, and quantitative nature, through the analysis of data from the online platform of the Hospital Information System of the Brazilian Unified Health System (SIH/DATASUS). The data obtained were tabulated using the Microsoft Office Excel program. The variables considered were: death, age group, sex, health macro-region, city, race/ethnicity, and type of care. **RESULTS:** Maranhão has the highest number of hospital deaths due to HF among the Northeastern states, accounting for 8% of the total. The male population showed a higher mortality rate in hospitals (55%). Individuals aged 80 or older have the highest number of deaths (30%). An increase in the number of hospital deaths can be observed with increasing age groups, except for the percentage observed among those under 1 year old (0.74%) and those aged 1 to 4 years (0.32%), which have higher values than the 15 to 19 age group (0.54%) and the 5 to 9 age group (0.15%), respectively. There were more deaths as emergency cases (89%) compared to elective care. The Northern Macro-region (MRN) showed the highest hospital mortality rate (53%), followed by the Eastern Macro-region (MRL) (26%). The cities of São Luís, Imperatriz, and Caxias had the highest numbers of deaths - 27%, 12%, and 6%, respectively. The mixed-race population (38%) had the highest number of records, followed by the Asian population (3%). **CONCLUSION:** It is evident that the MRN and the city of São Luís have a significant number of deaths, which can be explained by easier access to healthcare centers. The high number of deaths as emergency cases may be related to decompensated cases with little adherence to both treatment and disease prevention. It is emphasized that more targeted public policies be formulated for mortality control and disease prevention.

167. **HIV/AIDS mortality in the state of sergipe by age group in the period 2001-2020**

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**INTRODUCTION:** Acquired Immunodeficiency Syndrome (AIDS) is a chronic infection caused by the HIV virus, which leads to immunosuppression and the development of opportunistic infections and/or neoplasms. In 1996, retroviral therapy (ART) was introduced into the Unified Health System (SUS), increasing the survival rate of HIV-positive patients. The aim of this study is to analyze AIDS deaths in the state of Sergipe by age group between 2001-2020. **METHODOLOGY:** This is an ecological, descriptive, quantitative study with a temporal approach. The data was obtained from DATASUS, referring to deaths registered from 2001 to 2020 in individuals up to 80 years of age. **RESULTS:** According to the Ministry of Health's protocol, HIV/AIDS is diagnosed using the fourth generation immunoassay test plus Western Blot or Immunoblot for confirmation. The semiology is characterized by lymphadenopathy, thrombocytopenia, diarrhea, headache, a decrease in CD4 cells and the appearance of opportunistic diseases. Treatment involves a combination of antiretroviral drugs, which has made it possible to reduce the patient's viral load. Between 2001 and 2020, 1,432 deaths from AIDS were recorded in the state of Sergipe, of which 0.9% were in children under 15 years of age. It was observed that 95% of deaths (1381) occurred in patients aged 20 to 59, of which the age group with the highest number was 30-39 years with 470, representing 32.82% of the total. The 40-49 age group had 372 deaths (25.98%) and 215 deaths were reported in the 50-59 age group. In 2009 there were 34 deaths in the 30-39 age group, the highest number recorded by age group in the period analyzed. From 2013 onwards, deaths exceeded 80/year, with 2014 standing out with 94. The following years showed a significant drop, with 81 deaths recorded in 2015 and 88 in 2016, but in 2017 and 2018, there was an increase in the number of deaths, with 100 and 102 deaths respectively, in 2020 113 deaths were reported. **CONCLUSION:** Despite the prevention policies adopted, such as the free distribution of antiretroviral drugs for continuous use, deaths from HIV are on the rise in Sergipe, especially in the 30-39 and 40-49 age groups. In this sense, additional studies are needed to assess the local factors related to the increase in deaths in the state in order to promote their effective reduction.

168. **MORTALITY FROM ACUTE MYOCARDIAL INFARCTION IN BRAZIL BETWEEN 2015 AND 2020**

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**INTRODUCTION:** Acute Myocardial Infarction (AMI) is an ischemic heart disease culminating in reduced blood flow caused by an obstruction, resulting in tissue hypoxia and, later, in myocardial tissue necrosis. Therefore, this study aims to characterize the epidemiological profile of mortality in Brazil due to acute myocardial infarction from 2015 to 2020 in order to reflect on its panorama in the country. **METHODS:** This is an observational, descriptive, retrospective and quantitative study of deaths from AMI in Brazil. Data were obtained from the Mortality Information System of the Unified Health System (SIM/TabNet Win 32 3.0) between the years 2015 to 2020, having as analysis parameters: region, sex and race. **RESULTS:** 8,109,956 deaths from AMI were reported in Brazil in the analyzed period. The Southeast region stands out with the highest number of deaths, 45.3% (n= 3,680,670), followed by the Northeast with 26.5% (n= 2,149,542) and the South with 15% (n= 1,223,186). Males stand out with 55.9% (n= 4,533,730) compared to females 44% (n= 3,572,524). The most comprehensive race was white 54.6% (n= 4,092,693), followed by brown 37.6% (n= 3,050,284) and black 7.8% (n= 633,593). **CONCLUSION:** It is observed that the Southeast, South and Northeast regions have a high mortality in Brazil, possibly due to the largest diagnostic and reporting centers in the country. Males were the most affected due to irregular health habits such as sedentary lifestyle, obesity, alcohol and other drug abuse compared to females. Finally, the white race stands out as the largest group of deaths, also possibly due to greater access to a more deleterious lifestyle, however, more comprehensive studies are needed in this perspective.



169. **MORTALITY FROM CHRONIC RENAL FAILURE IN MARANHÃO FROM 2012 TO 2021**

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**INTRODUCTION:** Chronic renal failure (CRF) is the final stage of chronic kidney disease (CKD), with a glomerular filtration rate using the CKD-EPI method  $\leq 15$  ml/min/1.73m<sup>2</sup>, due to the depletion of the number of functional nephrons by continuous injuries, mainly caused by systemic arterial hypertension (SAH) and diabetes mellitus (DM). At this stage, survival is reduced and, if left untreated, it develops into uremic syndrome, anorexia, nausea and vomiting, which can be fatal. Given this, the objective of this work was to analyze the profile of CRF mortality in Maranhão from 2012 to 2021. **METHODS:** Ecological, quantitative, time series epidemiological study (2012-2021), with data from TABNET - DATASUS – Information System on Mortality (YES). The variables were analyzed: deaths, year, age group, education, race, health region and sex. **RESULTS:** There were n=1784 deaths due to CRF, between 2012 and 2021, in Maranhão. Men represent 61.4% of deaths. The year with the most deaths was 2021 (n=220), followed by 2020 (n=219). As for the age group, the most affected was 60-69 years old (n=415). Regarding education: up to 3 years corresponded to 53.8%. The brown race represents 64% of the total. The health regions with the most records were: São Luís (n=314), Imperatriz (n=174), Caxias (n=172), Timon (n=94) and Presidente Dutra (n=91). **CONCLUSION:** There were more deaths in the elderly, due to the chronic and progressive aspect of CRF. The panorama of mortality due to CKD associated with its etiologies indicates the need for improvements in basic care actions such as health education and screening for hypertension and DM to prevent CKD.

170. **MORTALITY FROM ACUTE RESPIRATORY DISTRESS SYNDROME IN NEWBORNS IN MARANHÃO**

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**INTRODUCTION:** Newborn Respiratory Distress Syndrome (NRDS) occurs due to an imbalance in pulmonary surfactant supply, leading to diffuse alveolar atelectasis, cellular injury, and edema, followed by surfactant function inhibition caused by proteins. In premature infants, NRDS is the most common respiratory disorder, especially in preterm infants (<28 weeks), males, offspring of diabetic mothers, and those experiencing birth asphyxia. The neonate's condition is characterized by rapid reactive oxygen species formation, overwhelming the body's detoxification capacity due to antioxidant overload. Consequently, NRDS stands as a significant cause of morbidity and mortality in this age group. Therefore, this study aims to identify the epidemiological profile and mortality rates of patients hospitalized for sepsis in the state of Maranhão from 2018 to 2021. **METHODOLOGY:** This is a quantitative cross-sectional study covering the period from 2018 to 2021. Data were collected through the Mortality Information System (SIM) via the Department of Informatics of the Unified Health System (DATASUS). The sample comprised cases of deaths in children under one year due to newborn respiratory distress and severe acute respiratory syndrome (SARS) in the state of Maranhão. Variables analyzed included newborn age group, gestational age at birth, maternal age, sex, race, and number of deaths. Data tabulation, as well as graph and table construction, were performed using the Microsoft Excel platform. **RESULTS:** From 2018 to 2021, a total of 401 cases of infant deaths due to newborn respiratory distress were recorded in the state of Maranhão, with the highest rates in 2019 and the lowest in 2020. Regarding age group, newborns aged 0 to 6 days were the most affected (90.52%), followed by premature newborns, i.e., those born before completing 37 weeks of gestational age (77.30%). Additionally, cases were predominant among male newborns (52.61%) and those of mixed race (68.07%). Notably, data regarding weight showed a higher prevalence among those born weighing less than 2500g (80.54%). Furthermore, regarding maternal factors, cases were more prevalent among those aged between 10 and 19 years (29.92%), with an educational level of 8 to 11 years (54.36%). Moreover, NRDS was present in approximately 11% of deaths in infants aged 0–6 days. **CONCLUSION:** Consequently, key factors related to infant mortality due to NRDS in the Maranhão region were identified, with a prevalence among newborns aged 0 to 6 days and weighing less than 2500g. Moreover, inadequate or insufficient maternal care, along with inappropriate approaches and therapeutics for managing infants with severe acute respiratory distress, are risk factors for this condition. Therefore, it is crucial to emphasize preventive measures aimed at minimizing mortality from this pathology, along with early diagnostic approaches and appropriate interventions, as fundamental measures to improve outcomes in the state of Maranhão.

**171. MORTALITY FROM BEHAVIORAL AND MENTAL DISORDERS IN MARANHÃO (2012-2021)**

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**INTRODUCTION:** Mortality from mental and behavioral disorders is a growing concern worldwide, particularly in the state of Maranhão, given its social, cultural, and economic characteristics. Mental disorders such as depression, anxiety, schizophrenia, and bipolar disorder, along with related behaviors such as psychoactive substance use, have a significant impact on people's quality of life and population mortality. Thus, this study aims to characterize mortality from behavioral and mental disorders in Maranhão between 2012 and 2021. **METHODS:** This is an ecological study analyzing mortality from behavioral and mental disorders in Maranhão between 2012 and 2021. Data were acquired through SIM/DATASUS and tabulated using the TABWIN and TABNET system. The variables observed were: number of deaths, most affected municipalities, year, sex, age group, race/ethnicity, education level, marital status, place of occurrence, and cause of death. **RESULTS:** Through the analysis of data on mortality from behavioral and mental disorders in Maranhão, it is noted that there were a total of 2,864 deaths in the analyzed period. The three municipalities with the highest occurrence were São Luís (22%), Timon (5%), and Imperatriz (4%). During the study period, there was a gradual increase in the number of deaths, with a highlight for the years of the COVID-19 pandemic (2020 and 2021), which recorded a higher number of occurrences. Regarding sex, males were the most affected, accounting for 78% of cases. The most affected age group was 40 to 49 years old, with 19% of deaths. Regarding race/ethnicity, 78% were mixed race. In terms of education level, 31% had no years of schooling. Regarding marital status, the majority (49%) were single. Death occurred at home in 48% of cases. About 81% of deaths were due to mental and behavioral disorders caused by the use of psychoactive substances, of which 68% were due to alcohol use. **CONCLUSION:** It is evident that the profile of mortality from mental and behavioral disorders in Maranhão is characterized by men, aged 40 to 49, declared mixed race, with no education, single, whose death occurred at home, and whose cause was mental and behavioral disorders due to the use of psychoactive substances (mostly alcohol). Therefore, identifying this profile is of great importance for the development of public health strategies to address this issue.

**172. NEGLIGENCE IN THE MANAGEMENT OF WORK-RELATED PNEUMOCONIOSIS IN BRAZIL**

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**INTRODUCTION:** Pneumoconioses are occupational lung diseases that involve exposure to harmful substances in the workplace. It is closely associated with the inhalation of dust containing metals, oxides and other salts. It mainly involves silicosis and asbestosis, however, it can also be triggered by coal, iron, manganese, zinc, bauxite, limestone and others. It can cause coughing and dyspnea and affects workers in different industrial and mining sectors, therefore, it is important to analyze the different management involving these lung diseases. **METHODS:** This is a descriptive and quantitative research using data from the DATASUS/TABNET platform. From SINAN NET, notifications of work-related pneumoconioses were selected regarding conduct recorded in the period from 2013 to 2022, which are subdivided into: agent removal, adoption of change, collective protection, removal from the site, individual protection, none and others. Data analyzes and comparisons were made between each year and between each conduct adopted. **RESULTS:** Data were found relating to 3720 patients from 2013 to 2022, with a preponderance of non-adoption of any measures related to pneumoconioses. Among those who adopted at least one conduct, the least adhered to was collective protection, by 70 patients, followed by the removal of the agent, with 475, and individual protection, with 779, essentially neglected in 9 of the 10 years studied. On the other hand, the most prevalent was personal protection, with a positive value of 779. In second place is the removal of the agent and the removal from the location, with 475 and 370 patients. Some of the sections studied showed absence of data from 2018 to 2022, which hinders the analysis, namely: collective protection, removal from the location and others. **CONCLUSION:** Failure to adopt changes and failure to provide collective protection are the main behaviors that were neglected, which may suggest underreporting of informed conduct or may represent failures and/or negligence in conduct regarding patient care with pneumoconioses. Therefore, it becomes essential to establish an increase in health prevention strategies related to occupational diseases, with the aim of increasing data collection, improving the rates of conduct taken and, therefore, increasing the patients' life quality.

**173. DIABETIC NEUROPATHY AND ITS MAIN CLINICAL REPERCUSSIONS**

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<sup>1</sup>Universidade Uniceuma

**INTRODUCTION:** According to data from the Federal Police's International Traffic System (STI), Brazil is currently home to more than 477,000 Venezuelan refugees. Most of the immigrants enter through the north of the country, in the state of Roraima (RR), and are initially concentrated in the cities of Boa Vista and Pacaraima. In these cities, refugees are welcomed, sheltered and receive health care. The aim of this study is to analyze the impact of spending approved for health care in two cities in Roraima. **METHODS:** This is a comparative study of the amounts approved for outpatient care in two cities in RR with a high number of Venezuelan refugees, between the periods 2011 to 2016 (1st period) and 2017 to 2022 (2nd period). The figures for care were obtained from DATASUS, the Ministry of Health, and the number of refugees in Brazil from STI. As this is a study using secondary data, approval by the Research Ethics Committee is not required. **RESULTS:** In the first period, the municipalities analyzed had a total of R\$257,679,943.08 approved for outpatient care. In the 2nd period, the amounts approved increased by 23% compared to the previous 6 years. This increase did not occur evenly over the years, with a lower amount approved in 2020 than in almost all the years of the 1st period. 2020 also saw the lowest number of Venezuelan refugees entering the country (47,661). The highest amounts approved for outpatient care occurred in 2022, 2018, 2017 and 2019, respectively, coinciding with the years with the highest influx of Venezuelan refugees. **CONCLUSION:** The results suggest a correlation between the influx of Venezuelan refugees and the increase in the amounts approved for health care in the municipalities that primarily receive them. Further research should be carried out to prove this hypothesis.

**174. NOTIFICATION OF HOSPITAL ADMISSIONS OF WOMEN WITH HIV IN MARANHÃO BETWEEN 2018 AND 2023**

Mariana Alencar Bisinotto<sup>1</sup>, Ana Carolina Celidonio Almeida Campos<sup>1</sup>, Jouwsen Henrieth Reis Andrade Nascimento<sup>1</sup>, Kellen de Jesus Farias da Luz<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, Erika Krogh<sup>1</sup>

<sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Human immunodeficiency syndrome (HIV) is a pathology caused by a retrovirus that provides a diversity of clinical manifestations and different spectrums according to the destruction of CD4 + T cells. In its advanced phase, acquired immunodeficiency syndrome (AIDS), opportunistic diseases and neoplasms appear, representing serious health problems. The main form of transmission is sexual and has a high transmission and incidence rate. It is a disease that has no defined cure, but there is treatment that significantly reduces the course of the disease, however adherence is not always ideal, which makes HIV control difficult. Therefore, the objective of the work is to trace the impact of HIV on women based on the analysis of cases of hospital admission by the Unified Health System (SUS). **METHOD:** This is a descriptive epidemiological study based on data made available by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospital admissions to the SUS of women with human immunodeficiency virus (HIV) disease, in the state of Maranhão, Brazil, reported between the period from July 2018 to July 2023. **RESULTS:** During the period analyzed, 861 hospitalizations attributed to HIV were reported in the state of Maranhão, with 592 of the cases concentrated in the North macro-region. The years 2021 and 2019 were those with the highest number of occurrences, with 20.2% and 9.74% of the total, respectively. Regarding the nature of care, 56.56% were classified as urgent, and the average hospital stay was 14.9 days. Furthermore, 115 deaths were recorded, with a higher incidence in the age groups of 30 to 39 years old, in which there were 43 cases, and 40 to 49 years old, in which there were 38. **CONCLUSION:** Given this, it is possible to infer that there are still many complications triggered by this infection, which can result in the death of the patient. Although there is no cure for HIV, there are many scientific advances in this area that allow people with the virus to have quality of life, so these people are possibly not having access to them. Furthermore, these numbers show that studies and investments are needed in the area to combat these results.

175. **NEW PERSPECTIVES OF TREATMENT FOR ALZHEIMER: A BIBLIOGRAPHIC REVIEW**

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<sup>1</sup> FAHESP/IESVAP

**INTRODUCTION:** Alzheimer is a progressive neurodegenerative disease, causing great harm to quality of life. The accumulation of Tau protein, a possible consequence of neuronal damage, is proposed as a trigger to clinical symptoms and accumulation of beta-amyloid (A $\beta$ ). The disease is manifested by a decline in cognitive capacity, changes in behavior and severe neuropsychiatric symptoms to the point of interfering with activities of daily living. Clinical diagnosis is based on the assessment of cognitive domains and functional impairment. Treatment of Alzheimer's Disease (AD) does not promote a cure. Currently, cholinesterase and NMDA receptor inhibitors are used to combat symptoms. The aim of the work is to analyze the new pharmacological management of AD. **METHODOLOGY:** This is an integrative, qualitative, retrospective and bibliographic literature review, analyzing around 8 articles from 2019 to 2023, extracted from Google Scholar, Scielo and Lilacs, about new treatments for AD with the descriptors "New", "Treatments", "Alzheimer" and Boolean operators "AND" and "OR". **RESULTS:** The therapy is considered palliative and the study seeks to address this shortcoming. Initially, the studies were aimed at modifying risk factors. Nilvadipine, used for hypertension, has been shown to act on the hippocampus, reducing blood pressure and regulating blood flow, probably stabilizing its functioning. The highest dose of Metformin was associated with an increase in total memory on the Selective Recall Test. Furthermore, studies with cannabinoid derivatives show prevention of neurotoxicity, hyperphosphorylation of Tau protein and promotion of neurogenesis in the hippocampus. Some approaches to reducing A $\beta$  load have been developed through gamma-secretase and beta-secretase inhibitors, the removal through immunotherapy is also a reasonable strategy. Finally, the monoclonal antibody Donanemab significantly delayed clinical progression in those with low/medium Tau and in the combined low/medium and high Tau pathology population. **CONCLUSION:** Although there is still no cure for Alzheimer, advances in medicine have provided AD patients with a new therapeutic perspective, which is based on risk factors, reduction of neurotoxicity, A $\beta$  and Tau protein load. These new approaches can provide a better quality of life for these individuals undergoing palliative treatment.

176. **PREGNANT WOMEN'S KNOWLEDGE ABOUT THE USE OF MEDICINAL PLANTS DURING PREGNANCY**

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**INTRODUCTION:** Medicinal plants have bioactive principles in their composition with prophylactic or therapeutic properties used by traditional medicine for centuries. Consequently, they are commonly used during the gestational period, however, the risk involved in this therapy during pregnancy should be highlighted. Therefore, this work seeks to analyze and describe the knowledge of pregnant women about the use of medicinal plants during pregnancy. **METHODS:** This is an integrative literature review research carried out in the LILACS and Medline scientific databases, using Decs/Mesh and their respective translations in English and Spanish, in addition to Boolean connectors: ((Knowledge) OR (Know)) AND ((Pregnant women) OR (Pregnant women) OR (Parturient women) OR (Parturient women)) AND ((Medicinal plants) OR (Medicinal herbs)). Out of 1,026 studies were retrieved and after reading and evaluating the inclusion and exclusion criteria, 10 articles were obtained. **RESULTS:** It should be noted that although the use of medicinal plants during pregnancy is common, scientific evidence indicates that the use occurred without professional guidance. The studies highlighted the lack of knowledge among pregnant women about the toxic effects of medicinal plants. The most used species were Chamomile (*M. chamomile*), to promote a calming effect, reducing nausea and vomiting. Ginger (*Z. officinale*), to promote a calming effect, reducing nausea and vomiting. Fennel (*F. vulgare*), to relieve heartburn, colic, constipation and flatulence. Mint (*M. piperita*), to relieve colic, pelvic pain and flatulence. *P. boldus* Molina, to relieve discomfort, diarrhea, constipation. However, the researchers emphasized the risk involved in using medicinal plants during pregnancy. They also explained that *M. chamomile* increases the risk of premature birth and low birth weight of the newborn; *Z. officinale* is associated with the risk of congenital anomalies, placenta previa and pre-eclampsia; *F. vulgare* has abortive and galactagogue action; *M. piperita* and *P. boldus* have teratogenic and abortifacient effects. **CONCLUSIONS:** Despite the beneficial effects of medicinal products, the importance of knowledge regarding the use of this therapy is highlighted, as well as guidance regarding professional preparation and delivery, especially during the gestational period, which is more delicate due to the risk of miscarriage and teratogenicity.

**177. THE IMPACT OF LEPROSY IN THE LAST 5 YEARS IN THE STATE OF MARANHÃO: AN EPIDEMIOLOGICAL STUDY**

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**INTRODUCTION:** Leprosy (Hansen's disease) is a chronic infectious illness caused by *Mycobacterium leprae*, a microorganism that has tropism for the skin and peripheral nerves, with neurological damage being the main responsible for its characteristic sequelae. It is part of the group of neglected diseases, caused by infectious agents and considered endemic in populations living in poverty, contributing to the maintenance of inequalities. **METHODS:** This is a descriptive quantitative epidemiological study, carried out by collecting data from the Hospital Information System of the Unified Health System (SIH/SUS), covering the period from January 2018 to December 2022. The variables were: processing year, sex and age. The data obtained was categorized using the software Microsoft Excel to create tables. **RESULTS:** A total of 2710 admissions for leprosy were registered in Maranhão in the analyzed period, with an increase between the years and 2022 being the one with the highest number of hospitalizations (691). Regarding mortality, there were 77 deaths and there was an increase of 228.5%, which went from 7 to 23, between 2018 and 2022. Regarding age, leprosy has a prevalence in patients over 15 years old, with the most affected being those between 20 and 59, which corresponded to 66.9% of hospitalizations. The deaths occurred mostly in the age group of 30 to 49 years, with 44 deaths. Furthermore, 72.5% of hospitalizations were male, which also corresponded to the highest number of deaths (46) and costs (R\$ 1,739,606.00). Regarding the amount of hospital services, the total was 2,411,949 reais, with 2022 being the most expensive year (R\$ 692,530.60). **CONCLUSIONS:** The increasing number of hospitalizations and deaths due to leprosy in recent years, as well as the high costs caused by it, highlight the need to understand the regional context of the disease. In this perspective, more studies are needed to carry out measures aimed at early diagnosis and treatment, in order to reduce the rates of hospitalizations and deaths of these individuals in Maranhão, as well as reducing costs for the Unified Health System.

**178. THE IMPACT OF HEGEMONIC MASCULINITY ON THE LATE DIAGNOSIS OF PENIS CANCER IN MARANHÃO**

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**INTRODUCTION:** Hegemonic masculinity deprives men of full health, since illness is considered, from this perspective, as a sign of fragility and "feminization". In Maranhão, the state that leads the death rates from penile cancer (PC) in Brazil and the world, these stigmas of masculinity, associated with other factors, are more accentuated. Thus, the objective of this work is to evaluate the impact of hegemonic masculinity on the late diagnosis of PC in Maranhão. **METHODS:** 30 patients diagnosed with PC treated in three reference hospitals in Maranhão were selected and interviewed to apply a questionnaire to collect sociodemographic and behavioral data throughout the execution of the research project "PHYSIOPATHOLOGICAL AND MOLECULAR PROFILE OF PENIS TUMORS ASSOCIATED WITH HUMAN PAPILOMAVIRUS INFECTION", approved by CEP-HUUFMA under opinion no. 4.228.789 and CAAE 30760420.3.0000.5086. For all collections, an Informed Consent Form was signed with authorization from patients to use their data in derivative research, such as this study. **RESULTS:** Around 36.6% patients reported a delay of 6 to 12 months in seeking a doctor from the onset of symptoms, 23.3% a delay of less than 6 months, 20% a delay of more than 24 months and 16.6% from 12 to 24 months. The majority of patients (83.3%) reported negligence as a reason for delay in seeking medical care even with symptoms and 16.6% reported the reason as shame. Around 43.3% of patients reported more than 10 sexual partners in their lives, 30% reported five or fewer partners, 13.3% reported 6 to 10 partners and 13.3% were unable to provide information. **CONCLUSION:** In this study, the majority of participants reported a delay of more than 6 months from the onset of symptoms to seeking medical help. The patients' justifications for this delay were negligence and shame and many had high-risk sexual behavior, with multiple partners, but still abstained from medical consultation. This scenario highlights the unconscious fear of the male individual, the denial of his own vulnerability, and the search for medical care only when there is some symptomatological manifestation and/or illness already established, especially if related to diseases of the genitourinary system, such as CP, delaying the diagnosis of the disease. Therefore, studies in this area are important to support future updates of public policies for men's health care.

179. **THE IMPACT OF IMMUNOBIOLOGICS ON THE TREATMENT OF ATOPIC DERMATITIS: A LITERATURE REVIEW**

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**INTRODUCTION:** Atopic dermatitis (AD) is a chronic and recurrent skin disease characterized by eczema, inflammation, and itching. It is often associated with elevated levels of IgE, as well as other allergic conditions such as asthma and rhinitis. Recent discoveries in the immunopathogenesis of AD include a better understanding of the role of Th1 and Th2 lymphocytes and their cytokines in disease development, leading to therapies targeted at these specific mechanisms, such as immunotherapy and immunobiologics, leading to therapeutic precision and the possibility of individualizing treatment, ushering in a new era in AD management. This review aimed to evaluate the impacts of immunobiologic compounds in the treatment of atopic dermatitis. **METHODS:** This is a descriptive literature review, based on the databases Scielo, PubMed, and Scopus. The following descriptors were used to search for articles: "Atopic Eczema", "Immunotherapy", and "Biologicals". Inclusion criteria for article selection were: articles published in Portuguese and English, available in full text, and published and indexed in the aforementioned databases between 2019 and 2023. **RESULTS:** There are numerous monoclonal antibodies used to treat AD. Dupilumab, approved for clinical use by the Food and Drug Administration (FDA) in the United States and by the National Health Surveillance Agency (ANVISA) in Brazil in 2019, is indicated for moderate to severe forms of the disease in adults and adolescents aged 12 and older. Tralokinumab, authorized in the European Union, is used in adults with moderate to severe AD. Nemolizumab is in phase III studies, lebrikizumab in phase II, and fezakinumab in clinical trial phase. Studies have shown greater efficacy of the mentioned immunobiologics, both as monotherapy and in combination with topical treatment, compared to placebo, with significant reduction in eczema area and severity and improvement in itching. The medications were well tolerated, and adverse effects were mostly local, transient, and mild to moderate. **CONCLUSION:** It was possible to analyze the positive impact of immunobiologics in the treatment of atopic dermatitis, with several new drugs emerging as therapeutic options. However, especially in Brazil, there is an urgent need to strengthen studies on these drugs in order to effectively translate their effects and alleviate the current difficulty of access to immunotherapy.

180. **THE ROLE OF MEDICAL SCHOOLS IN PROFESSIONAL INTEGRATION AND IMPROVING HEALTH CARE**

Layssa Ellen Marinho Barbosa<sup>1</sup>, Ana Mariza dos Santos Gonçalves<sup>1</sup>, Gamaliel Gama Sanches Silva Júnior<sup>1</sup>, Flávio Augusto de Alencar Oliveira<sup>1</sup>, Thiago Rocha Farias<sup>1</sup>, Lia Teixeira Cândia<sup>1</sup>.

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**INTRODUCTION:** Multiprofessional integration in medical training is essential for a more comprehensive and holistic approach to treating patients, in order to meet the complex demands of the health system. This model encounters obstacles in medical schools, either due to the prevalence of the traditional model or the neglect of interprofessional collaboration in clinical practice. With this in mind, the aim was to synthesize the evidence found in the literature on medical education in relation to multi-professional integration and its role in improving healthcare. **METHODOLOGY:** A bibliographic survey was carried out to review the literature in the LILACS and SciELO databases using the Health Sciences Descriptors (DeCS): Health education; Medical education; Multiprofessional integration. Five articles relevant to the topic were selected, written in Portuguese and available in full for reading. **RESULTS:** Medical education has a core field in interdisciplinarity, especially at the time of the implementation of the national curriculum guidelines. It is clear that the importance of interprofessional medical education is evident and the lack of in-depth studies confirms the scarcity of approaches to the subject. Obstacles to the implementation of this educational model include curricular rigidity and inflexibility in the movement between disciplines. The implementation of common disciplines, research and extension projects for health courses is presented as a strategy for developing professionals capable of working in an inclusive and collaborative way, where members know each other's areas of activity and are able to take on part of their duties. **CONCLUSION:** Current medical training in Brazil has yet to integrate a holistic and interprofessional approach in a concrete way. Institutional obstacles, inflexible curricula and professional corporatism are obstacles to including a culture of collaboration and teamwork, considering care, comprehensiveness and ethics. Dialogue between universities and the creation of shared learning spaces are important for breaking down academic barriers and professional stigmas, contributing to a more reflective medical education that is aware of the complexity of the demands of the health system. In view of this, the proper handling of overlapping roles and respect for the functions of each professional is crucial to establishing solid communication between the areas.

**181. THE USE OF ARTIFICIAL INTELLIGENCE IN SUPPORT OF CLINICAL DECISION-MAKING**

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**INTRODUCTION:** In healthcare, clinical decision-making is a complex process influenced by factors such as professional fatigue and difficulty analyzing large volumes of data related to patient conditions. The use of Artificial Intelligence (AI) in conjunction with the experience and knowledge of healthcare professionals emerges as a solution to address these issues, assisting in the analysis of available data and possible variables that may alter the patient's diagnosis or clinical outcome. This study aims to analyze the possibilities of using AI to support clinical decision-making. **METHODS:** This study is an integrative literature review developed from the analysis of articles indexed in the PUBMED and SCIELO databases. The investigation involved using the Health Sciences Descriptors (DeCS): "Artificial Intelligence" and "Clinical Decision", combined with the Boolean operators "AND" and "OR". A total of 154 studies were found that met the inclusion criteria: full articles, freely accessible, and published between 2018 and 2023. After analysis, 4 articles were selected that fit the purpose of this study. **RESULTS:** AI tools are developed to analyze large datasets, and the use of this tool in predicting diagnoses, clinical outcomes, risk of complications, and other variables is particularly relevant in medical conditions with a large amount of information available. AI enables improvements in clinical decision-making, making the process more efficient and faster. However, the integration of AI into clinical decision support systems must be done with caution to ensure that healthcare professionals have control over the decision-making process. Additionally, it is essential to pay attention to the quality of the data used, as biases in the recommendations may inadvertently be perpetuated, resulting in possible failures related to the use of this tool. **CONCLUSION:** In summary, AI in healthcare is a useful tool for improving clinical decision-making, offering more accurate diagnoses, identification of health risks, and personalized treatments. However, it is fundamental to address challenges and concerns as this technology advances to ensure its beneficial use in patient care.

**182. THE USE OF ACETYLSALICYLIC ACID AS A PROPHYLAXIS FOR PRE-ECLAMPSIA IN HIGH-RISK PREGNANCIES**

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**INTRODUCTION:** Pre-eclampsia (PE) is a multisystem disorder with major clinical repercussions, characterized above all by high blood pressure levels associated with target organ damage, diagnosed from the 20th week of pregnancy onwards. In women who develop PE, there is an inadequate invasion of trophoblasts into the spiral arteries in the placentation process, resulting, among other alterations, in increased platelet aggregation and decreased vascular flow. Understanding this pathophysiological mechanism has led to studies analyzing the effectiveness of platelet antiaggregants as a way of preventing or delaying the onset of PE. Acetylsalicylic acid (ASA) has therefore been used in low doses as a prophylactic measure in women who have added risk factors - such as diabetes, previous hypertension and lupus. The aim of this study is therefore to review the available literature on the impact of using ASA in pregnant women at high risk of developing pre-eclampsia, to explain the recommended dose and the ideal time to prescribe it, and to investigate which tests can in fact refine PE risk screening. **METHODS:** This is a literature review based on articles available on the UptoDate, Google Scholar and SciELO platforms. A total of 7 articles published between 2017 and 2023 were analyzed and considered eligible for the study. **RESULTS:** The analysis showed that, although the studies still differ, the preventive use of ASA has made a significant contribution to the management of patients at high risk of developing this complication. The results were more satisfactory in those who started treatment early - before 16 weeks of pregnancy - and the ideal dosage varied between 80 and 150 mg a day. On the other hand, there are still doubts on which PE predictive tests are effective in defining risk and thus selecting patients who should take the drug. **CONCLUSION:** There are still questions about the use of ASA in pregnant women. However, based on clinical analysis and previous pathophysiological knowledge, the use of the drug is justified in women whose risk of pre-eclampsia is considered significant. In addition, there is no consensus on a marker that can, in isolation, reliably predict which pregnant women should be submitted to prophylaxis, which is why a careful and individualized assessment of each patient is important.

183. **USE OF CANNABIDIOL AS A THERAPEUTIC METHOD IN EPILEPSY**

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**INTRODUCTION:** Cannabis sativa has several therapeutic properties and has been used for millennia for healing purposes. Among its benefits are analgesic, antiemetic and tranquilizing effects, acting strongly on the nervous system. **METHODS:** A systematic literature review, using bibliographic searches carried out in the electronic databases LILACS, PubMed and SciELO with the descriptors "cannabidiol" and "epilepsy". Of 1645 searches found, 06 were used in the study. **RESULTS:** Epileptic seizures can be generalized or partial and are determined by the affected area. The treatment for epilepsy are drugs that decrease the arousal capacity of neural tissue and a significant percentage of individuals cannot control them with traditional drugs alone. Endocannabinoids work in response to epileptiform activity, to activate CB1 receptors for excitatory neurons, to contain excess neuronal activity, which occurs during seizures. It is proven that patients who use it do not have toxic adverse effects. In Brazil, Cannabis is a controlled drug and the fact that it is imported, interfere in the treatment, who is interrupted while patient waits the new dosage. **CONCLUSIONS:** The importance of cannabidiol as a target for research and studies is verified, as it has ample potential in the treatment of epilepsy and reduces brain damage caused by it. In order that patients with epilepsy, have improvements in their quality of life.

184. **THE USE AND LIMITS OF ARTIFICIAL INTELLIGENCE IN THE DIAGNOSIS OF SERIOUS DISEASES IN PEDIATRICS**

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**INTRODUCTION:** Artificial Intelligence (AI) consists of the ability of virtual systems to reproduce human cognitive functions. This technological field has been useful in identifying serious pediatric conditions today, a fact that motivates discussion regarding the uses and limits of its use. **METHODOLOGY:** This is a narrative review that used the descriptors "artificial intelligence", "medicine", "pediatrics", "diagnosis" and "serious diseases" in two databases (PubMed and Google Scholar) in October 2023. Articles written in Portuguese or English published between 2018 and 2023 were included. In total, 25 articles were found, of which 4 were in line with the objectives of this work. **RESULTS:** The articles analyzed indicate that the use of algorithms has helped in the classification of patients, by associating clinical data with possible diagnoses of critically ill patients. Thus, technologies can examine broad sets of data and create predictive models that expand human skills, supporting professionals in decision-making. In this way, AI's competence in predicting the worsening of critical patients is based on the correlation, carried out by software, between the results of laboratory tests, imaging tests and vital signs, which is useful in reducing care time and optimizing care. However, regarding the limits of the use of AI in the given context, the materials highlighted the challenge in training the algorithms, given that pediatric patients constitute a heterogeneous and small population, which implies the quantity and quality of available data. Furthermore, ethical and legal issues are important barriers to the applicability of AI resources, as they concern patient privacy as well as information security. **CONCLUSION:** Therefore, there is a need for more studies on the subject to expand the data available for algorithm training, in addition to leading to the improvement of software and other devices, in order to guarantee safer applications. In this context, the discussion of ethical and legal issues must be considered for greater usability of the technology. However, artificial intelligence does not replace pediatricians, but it can assist and increase the efficiency of care for critically ill patients.



**185. OBESITY AND RISKS IN PLASTIC SURGERY: A LITERATURE REVIEW**

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**INTRODUCTION:** The World Health Organization defines obesity as a nutritional state in which the BMI is equal to or greater than 30 kg/m<sup>2</sup>. This condition affects various body systems and has implications, especially for patients requiring plastic surgery, extending from the preoperative to the postoperative period. In plastic surgery, high BMI is a risk factor for wound complications and adverse events, particularly in breast procedures and reconstructive/cosmetic procedures in other areas of the body. It is in this context, where understanding the risks that the nutritional state poses to obese patients undergoing surgical procedures is relevant, that the research was conducted. **METHODS:** The systematic review of scientific articles on the impact of obesity on plastic surgeries was constructed from searches in the "Pubmed" and "SciELO" databases, with a final selection of 08 English-language papers published between 2016 and 2023 according to the descriptors: obesity, plastic surgery, and complications, excluding those outside the mentioned period and in another language. **RESULTS:** The analyzed articles showed that fat accumulation poses risks to quality of life, especially in the surgical context. Obese patients undergoing plastic surgeries have an increased risk of complications: deep vein thrombosis, pulmonary embolism, and reoperations. Elevated BMI is also associated with other specific complications: infections and delayed wound healing. Furthermore, it is reported that procedures such as breast reconstruction may improve the quality of life of obese individuals, but they also increase the risk of seromas and necrosis of the breast flap, with the choice of surgical technique being a factor of great influence in minimizing complications. Thus, it was observed that obesity is not an absolute contraindication for plastic surgery, but patients and the surgical team should be aware of the associated risks and consider them when making decisions about surgical procedures in obese individuals. **CONCLUSION:** Obesity represents a serious public health problem and, in the field of plastic surgery, increases complication rates and the incidence of reoperations. However, careful evaluation and the use of appropriate surgical techniques can benefit the quality of life of obese patients and enhance understanding of the risks involved.

**186. DEATHS FROM MALIGNANT CERVICAL NEOPLASMS: EPIDEMIOLOGICAL STUDY IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Cervical cancer (CCU) is a malignant neoplasm that affects women and develops from persistent infection caused by certain types of human papillomavirus (HPV). Environmental, social, behavioral, genetic, and immunological risk factors are also associated with the development of this condition. In Brazil, CCU is the third most common cancer in women, excluding non-melanoma skin tumors. In an analysis of the Northeast region, Maranhão has one of the highest CCU rates, with a prevalence of 21.71 cases per 100,000 women. Regarding mortality, the disease has a rate of 4.60 deaths per 100,000 women in Brazil. In 2020, the standardized mortality rate in Maranhão was estimated at 8.47 cases per 100,000 women. Given the above, CCU is considered a significant public health problem, and this study aims to analyze the distribution of deaths from malignant cervical neoplasia in the state of Maranhão between 2018 and 2022.

**METHODS:** This was a descriptive and retrospective epidemiological study, and the data were obtained from the Hospital Information System of the Unified Health System (SIH/SUS), provided by DATASUS, in the state of Maranhão, from 2018 to 2022. The following variables were analyzed: age group, race, number of hospitalizations, and deaths by health region. **RESULTS:** During the analyzed period, 773 deaths from cervical cancer were reported in the state of Maranhão. Most of these occurred in women aged 50 to 59 years, with 206 (26.64%) deaths. The race most affected by the neoplasm was parda (mixed race), with 441 (57.05%) deaths. Also, during this period, the total number of hospitalizations for neoplasia in the state was 5029. Furthermore, the highest percentages of deaths were concentrated in the major health regions, such as the city of São Luís, with 576 (74.22%), followed by the city of Imperatriz with 138 (17.78%) of the deaths. **CONCLUSION:** In summary, the study results indicate a higher prevalence of deaths in women aged 50 to 59, of mixed race, in the city of São Luís. It is worth emphasizing the importance of studies focused on early detection of CCU, and consequently, the reduction of the number of deaths in the state of Maranhão.

**187. GUIDELINES BASED ON THE ERAS PROTOCOL IN PERIOPERATIVE MEDICINE IN BRAZIL**

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**INTRODUCTION:** The ERAS protocol is a set of measures that aim to mitigate responses to surgical stress, resulting in lower morbidity and mortality, lower costs and greater patient satisfaction. Characterized by evidence-based medicine, it was introduced in the 90s and inspired the creation of the ACERTO protocol in Brazil. Therefore, this work aims to gather general guidance on ERAS protocols for the most relevant areas in Brazil. **METHODS:** This is a narrative review of the literature on perioperative medicine and optimized recovery in Brazil. To this end, the ERAS society guidelines were pre-selected. Then, using the DataSUS digital platform, hospital production data in Brazil was collected regarding the fields covered in the guidelines. After that, themes that had very inferior, conflicting data or that did not apply to the country were excluded. In this way, a group was obtained with the 10 most relevant ERAS society axes for Brazil, representing a sample of 14 articles, which were analyzed and form the basis of this review. **RESULTS:** With regard to preoperative guidelines, there were recommendations for the following issues: pre-admission education and information, pre-operative optimization, fasting from solids of up to 6 hours, with specific cases of 8 hours, and from clear liquids within 2 hours, treatment with carbohydrates, prophylaxis against deep vein thrombosis, with pharmacological and/or mechanical methods, reduction of surgical site infections through the use of first generation cephalosporins, avoidance of the routine use of sedatives and anxiolytics and long-acting opioids and prophylaxis of nausea and vomiting. Intraoperatively, the recommendations were: an individualized anesthetic strategy, minimally invasive surgical techniques, maintenance of euvoemia and, in moderate to high-risk patients, goal-guided fluid therapy and maintenance of normothermia. In the postoperative period, the following were highlighted: urinary drainage, opioid-sparing multimodal analgesia, regular diet within the first 24 hours and early ambulation. **CONCLUSION:** The ERAS protocol represents a set of measures that aim to make the surgical process more efficient. Being an example of evidence-based medicine, the guidelines presented imply positive results and better practice of perioperative medicine, so their recommendations must be followed.

**188. THE ADVANCES OF ULTRASONOGRAPHY IN THORACIC INTERVENTIONS: A LITERATURE REVIEW**

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**INTRODUCTION:** With the advancements in ultrasonography (USG), various areas of medicine have been revolutionized, particularly in thoracic interventions. USG is capable of providing real-time images with precise guidance, coupled with a critical role in improving patient care and clinical outcomes, especially in patients with various types of pleural effusions. However, despite the significant expansion of this strategy, the full integration of USG advancements into clinical practice remains a challenge. Therefore, this study aims to shed light on the importance of ultrasonography advancements in thoracic interventions, highlighting their transformative effects on diagnostic accuracy and treatment, as well as patient safety. **METHODOLOGY:** This is a descriptive literature review, using the Scientific Electronic Library Online (SciELO), Medical Publications (PubMed), and Scopus databases. The following descriptors were used for article search: "Pleural Drainage," "Thoracic Ultrasound," "Thoracentesis". The inclusion criteria for article selection were: articles published in Portuguese and English, available in full text, and published and indexed in the aforementioned databases between 2018 and 2021. **RESULTS:** Ultrasonography is an imaging technique that utilizes sound waves reflecting off structures within the body to form images. Ultrasound is characterized by its ability to guide various types of procedures. One of the main ultrasound-guided intervention procedures at the thoracic level would be pleural diseases, as it assists in thoracentesis with greater precision and less patient damage, in addition to ensuring a better investigation of the type of pleural disease. Furthermore, it has ensured greater precision, safety, and efficacy in biopsies, fluid drainage, and needle-guided procedures. This ensures greater patient safety during the procedure and reduces the risks and damages to the patient. **CONCLUSION:** Advancements in ultrasonography for thoracic interventions in recent years demonstrate a revolution in medical practice. Thus, procedures such as thoracic drainage have benefited from the use of ultrasound associated with the procedure.

**189. THE CHALLENGES OF TUBERCULOSIS IN MARANHÃO: AN EPIDEMIOLOGICAL ANALYSIS FROM 2019 TO 2023**

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**INTRODUCTION:** Mycobacterium tuberculosis is the bacterium responsible for Tuberculosis (TB), a disease transmitted from person to person that primarily affects the lungs. In Brazil, combating tuberculosis remains a major challenge for public health, with the country currently having the highest number of reported cases in the Americas. In Maranhão, there was a significant increase in the number of cases between 2020 and 2021, rising from 2,608 to 3,046. Early diagnosis is crucial to initiate treatment promptly and increase the chances of cure. This study aims to outline the epidemiological profile of tuberculosis in Maranhão from 2019 to 2023. **METHODS:** It is a retrospective descriptive study analyzing tuberculosis cases in Maranhão between 2019 and 2023. Data were obtained through queries to the Diseases Notification Information System (SINAN) database available at the Health Department Information System (DATASUS) and processed using Microsoft Excel® for descriptive statistical analysis. **RESULTS:** From 2019 to 2023, 11,944 cases of tuberculosis were diagnosed in Maranhão. Regarding age group, individuals aged 20 to 39 years predominated, accounting for 42.50% (n=5076), followed by those aged 40 to 59 years, with 31.49% (n=3761). Concerning race, the most diagnosed ethnic group was pardo (71.41%), followed by self-declared Black individuals (14.22%). In terms of gender, males prevailed (68.19%). Regarding education, 7.70% were illiterate (n=920), and approximately 40% (n=4781) had incomplete primary education. Regarding diagnosis, 63.61% were laboratory-confirmed (n=7598), with 48.57% (n=5802) through the first sputum bacilloscopy and 6.44% (n=769) through sputum culture. Additionally, directly observed treatment confirmed 18.29% (n=2185) of the total cases. Pulmonary form was the most common clinical presentation, representing 90.87% of diagnoses. **CONCLUSION:** A predominance of cases in men, pardo individuals, aged 20 to 39 years was observed. Despite the established and freely provided treatment by the Unified Health System, TB remains a public health issue in Maranhão. Current combat strategies need to be reconsidered and adapted. Educating both the healthcare team and the population is crucial to promote early diagnosis and better treatment adherence, ultimately reducing the number of cases and complications.

**190. LANDSCAPE OF CUSHING'S SYNDROME TREATMENT IN BRAZIL: A NARRATIVE REVIEW**

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**INTRODUCTION:** Cushing's Syndrome (CS) encompasses a set of signs and symptoms resulting from excessive and prolonged exposure to glucocorticoids (GC). The most common cause is exogenous exposure, such as indiscriminate use of oral medications or topical steroids. CS is classified into primary (hypersecretion of adrenocorticotropic hormone [ACTH] and corticotropin-releasing hormone [CRH] by the hypothalamic-pituitary axis) and secondary (exogenous form). Its exact incidence is uncertain, but a global average of 0.12 to 0.24 cases per 100,000 people is estimated, with about 80% related to external GC use. Despite understanding the disease's pathophysiology, therapeutic management remains challenging. Thus, this study aims to review the landscape of CS treatment in Brazil. **METHODS:** This is a descriptive narrative review study conducted between September and October 2023. The SciELO, PubMed, and LILACS databases were consulted using the keywords "Cushing's syndrome" and "treatment." We included freely accessible articles written in English, Portuguese, or Spanish, published between 2018 and 2023, totaling 7 selected articles. **RESULTS:** Cushing's Syndrome presents with distinctive signs such as "moon face," flushing, and hirsutism. Current guidelines recommend confirming hypercortisolism through laboratory tests, such as overnight salivary cortisol or 24-hour urinary cortisol. The one-milligram overnight dexamethasone suppression test evaluates cortisol production inhibition capacity but may yield false positives in cases of anxiety, depression, uncontrolled diabetes, and alcoholism. Literature emphasizes the importance of reducing external steroids to preserve adrenal function after their suppression. Drug therapy includes pasireotide, mifepristone, and cabergoline, combined with treating comorbidities. In cases where CS is caused by an ACTH-secreting tumor, which cannot be completely removed, bilateral adrenalectomy, along with GC and mineralocorticoid replacement, is essential. **CONCLUSION:** Proper management of Cushing's Syndrome requires detailed investigation, precise diagnosis, and etiological classification. Treatment should be instituted according to the syndrome's cause, ranging from medical to surgical therapy. This approach is essential for improving patients' quality of life and controlling the adverse effects of prolonged GC exposure.

**191. DIABETIC FOOT: A COMPLICATION OF TYPE II DIABETES MELLITUS - CASE REPORT**

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Victória Araújo da Costa<sup>1</sup>, Gabriela Dantas Carvalho<sup>2</sup>.

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**INTRODUCTION:** The Global Burden of Disease Study (2013) lists diabetes mellitus (DM) as a cause associated with shorter life expectancy. In Brazil, there are impacts on public health, since, according to the National Health Survey (2013), the self-reported prevalence of DM was 6.2%. Among the main complications is diabetic foot, with a high rate of amputations and high hospital costs. Therefore, this work aims to describe a clinical case of diabetic foot and the therapy adopted. The research took place in the municipality of Pinheiro-MA, between April and June 2023, governed in accordance with Resolution of the National Health Council 466/12, approved by the Ethics Committee on Research with Human Beings of the Federal University of Maranhão and under the opinion number 70382923.4.0000.5087. The patient validated her participation by signing the Informed Consent Form. **CASE DESCRIPTION:** Patient L.R.M, female, 62 years old, black, with a history of DM diagnosed in 2018. Denies previous illnesses and smoking. She claims to be sedentary and alcoholic. The patient started treatment with gliclazide (30 mg), but continued to have unregulated blood glucose and food intake for 1 year. Due to the lack of glycemic control, gliclazide was associated with metformin (1 g), however, without correct adherence to the suggested therapy. In April 2023, he suffered an injury to his right ankle, followed by hyperemia, necrosis, asthenia, headache, and fever, which were remedied with benzetacil (1200 IU), 5 doses of ceftriaxone (1 g) and 1 dose of cefuroxime (10 mg), but without success. After 1 month, with no improvement in healing, she sought specialized care, being treated with 5 doses of ceftriaxone (1 g), topical papain, laser (2x/week) and ozone therapy (1x/week), at each dressing change. Furthermore, the patient underwent daily blood glucose control, dietary changes and treatment to control atherosclerosis with atorvastatin (10 mg). The last follow-up took place on June 8, 2023, when the ulcer, although with exposure of the peroneus longus muscle, continued to heal. The patient remains normoglycemic with the same pharmacological and complementary therapy. **CONCLUSION:** It is noteworthy that the therapeutic plans in this report are consistent with recommendations in the literature. As such, glycemic control, patient commitment and adequate adherence to pharmacological and non-pharmacological therapy are necessary to improve the patient's prognosis and avoid possible complications.

**192. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO STROKE BETWEEN 2018-2022 IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Stroke is one of the most prominent causes of hospitalization, death, and disability worldwide. According to the World Health Organization, approximately one-third of annual stroke cases result in mortality, while another third leads to permanent sequelae. It manifests as a reduction or interruption of blood flow to a cerebral area, exhibiting signs and symptoms dependent on the affected region. Stroke can be classified as hemorrhagic or ischemic, with the latter being more prevalent. Prognosis varies individually and may entail significant motor and cognitive sequelae, posing a major public health challenge globally. **METHODS:** A cross-sectional and retrospective study was conducted to analyze the epidemiological profile of stroke-related hospitalizations in the state of Maranhão between 2018 and 2022. Data were obtained from the Department of Health Informatics of the Unified Health System (DATASUS), involving the analysis of variables related to associated factors, age group, gender, race, and health microregion. The guidelines outlined in Resolution 510/2016 of the National Council of Ethics in Research were adhered to. **RESULTS:** The analysis of the age distribution of stroke hospitalizations in the state of Maranhão reveals a predominance of admissions in older age groups, particularly after the age of 60. Additionally, when examining the gender of hospitalized patients, there was a relatively balanced distribution between males and females. Regarding racial analysis, a higher number of brown-skinned patients were observed. The examination of the hospitalization landscape notably highlights the predominance of the Urban Agglomeration of São Luís, accounting for a significant portion of 21.8% of admissions. Following closely, Imperatriz represents 12.72%. **CONCLUSION:** Based on the findings, the epidemiological profile of stroke hospitalizations in the state of Maranhão is centered around elderly individuals of both genders, predominantly of brown race. Furthermore, the high prevalence of hospitalizations in major urban centers underscores the need for a more specialized approach to the management of this medical emergency.

193. **PROFILE OF VACCINATION AGAINST COVID-19 AND INFLUENZA IN CHILDREN IN MARANHÃO BETWEEN 2019 AND 2023.**

Mariana Alencar Bisinotto<sup>1</sup>; Celso Antônio Magalhães Ramos<sup>1</sup>; Kellen de Jesus Farias da Luz<sup>1</sup>; Layanne Silva Oliveira<sup>1</sup>; Fernando Vinícius Brandão Rocha de Almeida<sup>1</sup>; Débora Cristina Ferreira Lago<sup>1</sup>

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**INTRODUCTION:** Covid-19 and Influenza are viral infections with the potential to evolve into severe acute respiratory syndromes (SARS), with high morbidity and mortality in the infant population. Fortunately, such diseases are preventable by vaccination, however, they have not reached the ideal coverage to protect the target audience that would have an impact on reducing severity and incidence. **METHODS:** This is a descriptive epidemiological study based on data about Covid-19 and Influenza immunological coverage that are available in the National Immunization Program Information System (SI-PNI). The population studied was children under one year old for Influenza and children and adolescents for Covid-19. The study was carried out in the state of Maranhão, Brazil, from 2019 to 2023. **RESULTS:** In relation to immunization for Influenza, 807,923 doses were applied in the Northeast region of the country, with more than 50% applied in 2020 (432,959 doses); the majority of these doses (92%) were applied in a single dose and 2% of the total (16,401 doses) were applied to children under one year of age. In Maranhão, the same pattern was followed, with a predominance of single doses (41,919 doses), with 1.62 doses in children under one year of age. Regarding vaccination for Covid-19, the applied doses of monovalent and bivalent vaccines were analyzed separately. Doses of monovalent vaccines were predominant, with 11,048,752 doses applied to children between 12 and 17 years old, 8,249,231 in those between 5 and 11 years old, in addition to around 2 million in children under four years old. Regarding the bivalent vaccine, 62,044 children between 12 and 17 years old were vaccinated. The number of children between 6 months and 11 years old vaccinated with the bivalent vaccine totaled 2,128 doses. **CONCLUSION:** Influenza vaccination saw a drop in vaccination coverage from 2020 onwards, with a low percentage of doses applied to children under one year of age, making it necessary to establish strategies to increase vaccination coverage in this population. As for Covid-19, the results demonstrate that monovalent vaccines reached a wider audience, which can help in the adoption of vaccination strategies and increase coverage of specific groups.

194. **PROFILE OF HOSPITALIZATIONS FOR SEPSIS IN CHILDREN IN MARANHÃO FROM 2018 TO 2023.**

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**INTRODUCTION:** Sepsis is a dysregulated organic response to an infection, which generates serious and potentially lethal clinical conditions. It begins when the immune system reacts inappropriately to an infection, resulting in a cascade of events that can lead to endothelial damage, which will be responsible for multiple organ dysfunction. Sepsis is one of the main causes of morbidity and mortality in hospital environment and, if not treated promptly, can result in death. Symptoms of sepsis include fever, mental confusion, tachycardia, respiratory distress and decreased blood pressure. The condition is a medical emergency that requires immediate intervention, including administration of antibiotics and other supportive treatments. **METHODS:** This is an epidemiological, retrospective, quantitative and descriptive study based on data made available by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospital hospitalizations due to sepsis, in the state of Maranhão, between the period from July 2018 to July 2023, with individuals under 1 year old up to 14 years old. The correlated variables were: number of hospitalizations, year of care, sex, age group, deaths, average number of days of hospitalization. **RESULTS:** During the period studied, 1,764 hospitalizations were carried out, with a predominance of the age group under 1 year old with 1,149 cases (65%), followed by those aged 1 to 4 years old with 314 (17.8%). The year with the most hospitalizations was 2022 with 454, followed by 2021 with 309. Males were the most affected, with a total of 999 hospitalizations (56.6%). The average stay of hospitalizations was longer in individuals under 1 year of age, with an average of 14.4 days, followed by children aged 5 to 9 years, with an average of 11.5 days. The overall average stay was 13.2 days. Regarding deaths, 440 (24.9% of total cases) children died due to septicemia, with the majority in the age group under 1 year old, with 328 (74.5%), followed by those aged 1-4 years old, with 63 cases (14.3%). In relation to gender, the majority of deaths were among men, with 258 (58.6%). **CONCLUSION:** This study provides an important overview of the scenario of hospitalizations for sepsis in children in Maranhão from 2018 to 2023. It was shown that sepsis significantly affected children under 1 year of age, requiring special attention and preventive strategies for this group. The increase in hospitalizations in 2022 raises the need for additional resources and a possible worsening of the situation. The predominance of cases in boys highlights the importance of studying the reasons that generate this difference between genders. Furthermore, the high mortality rate, especially in babies, highlights the severity of sepsis and the urgency of interventions. Therefore, it is essential that health professionals and those responsible for health policy take these findings into account in order to reduce the impact of sepsis on the health of the pediatric population in Maranhão.

195. **CLINICAL-EPIDEMIOLOGICAL PROFILE OF AGRICULTURAL PESTICIDE POISONING IN MARANHÃO**

Max Danilo Bezerra Policarpo Sousa<sup>1</sup>, Alessa Samya Sérvulo Rodrigues<sup>1</sup>, João Batista Padilha Filho<sup>1</sup>, Marianna Sousa Costa<sup>1</sup>, Marla Maria de Sousa<sup>1</sup>, Nielson Amorim Frota<sup>1</sup>, Damylla Garreth Alves de Sousa<sup>1</sup>  
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**INTRODUCTION:** Exogenous intoxication is a common public health problem in hospital emergencies, characterized by contact and the body's reaction to chemical substances that cause organic imbalance, culminating in clinical symptoms and/or laboratory alterations. Among these substances, agrottoxins or agricultural pesticides are gaining prominence as the intensification of their use in Brazil highlights the risks that exposure to these products can pose to the health of the population. In view of the limited nature of surveillance of this disease, this study aims to outline the prevalent clinical-epidemiological profile in cases of agricultural pesticide poisoning in Maranhão, a state lacking literary data on the subject, from 2018 to 2022. **METHODS:** This is a cross-sectional, descriptive, retrospective and quantitative study, based on data from the Notifiable Diseases Information System (SINAN), provided by **DATASUS**, with the following variables: sex, race, age group, circumstance, type of exposure, confirmation criteria and evolution. These were gathered in Microsoft Excel spreadsheets for analysis. **RESULTS:** In the period studied, 224 cases of agricultural pesticide poisoning were reported in Maranhão, with the highest occurrence (30.35%) in 2021. The majority of the victims were men 153 (68.30%), brown-skinned 192 (85.71%), and predominantly in the age group of 20-39 years 91 (40.62%). As for the circumstances of the poisonings reported, the majority were suicide attempts 74 (33.03%) followed by accidental poisonings 69 (30.8%). It was observed that most cases occurred as a result of acute exposure to a single dose 180 (80.35%) and were confirmed by clinical criteria 116 (51.78%). Evolution to cure without sequelae was the most prevalent 181 (80.80%) and death was seen in 10 (4.46%) of the cases. **CONCLUSION:** Agricultural pesticide poisoning in Maranhão mainly affects adult and brown-skinned men. Most of them are classified as suicide attempts due to single-dose exposure. Clinical diagnosis stands out as a screening method and cases have a high percentage of cure without sequelae. Therefore, knowledge of the epidemiology of occurrences in the state contributes to the formulation of effective actions for the care of intoxicated victims, as well as prevention/control of exposure to agricultural pesticides, which should be coordinated between the Health sector and Maranhão society in general.

196. **EPIDEMIOLOGICAL PROFILE OF SCHISTOSOMIASIS IN MARANHÃO BETWEEN 2018 AND 2022.**

Marcelle Teixeira e Silva<sup>1</sup>; Stephanie Freire Soares de Farias<sup>1</sup>; Bruna De Oliveira Montes do Rosário<sup>1</sup>; André Aquim Salgado Prazeres Picanço<sup>1</sup>; Hanna Célia Almeida Serra<sup>1</sup>; Maressa Chagas Oliveira<sup>1</sup>; Laura Rosa Carvalho Dias<sup>1</sup>.  
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**INTRODUCTION:** Schistosomiasis is an infectious parasitic disease in Brazil caused by worms of the species *Schistosoma mansoni*, in which the parasite utilizes snails of the genus *Biomphalaria* as intermediate hosts to evolve into its infective form. This parasitic disease primarily affects populations that have frequent contact with rivers, as freshwater serves as the habitat for the vector, and areas lacking basic sanitation, due to the ease of disease transmission. Therefore, this study aims to investigate the epidemiological profile of patients with schistosomiasis in the state of Maranhão. **METHODOLOGY:** This is a descriptive and quantitative epidemiological study, for which data from DATASUS/TABNET were utilized, using the indicator of Notifiable Diseases and Health Problems from 2007 onwards. Schistosomiasis was selected as the health problem, Maranhão as the area of interest, and the variables of gender, race, age group, and education level were chosen, considering confirmed cases during the period from 2018 to 2022. **RESULTS:** During the study period, 110 cases were recorded, with the highest number in 2018 (n= 54). It should be noted the lower number of records during the pandemic period, given the priority of attention to COVID-19, with 7 records in 2020, 20 records in 2021, and 16 records in 2022. Regarding gender, there was a prevalence of males compared to females, at 69.1% and 30.9%, respectively. Among racial groups, self-declared pardos predominated, comprising approximately 64.5% of cases. Regarding education level, individuals with incomplete primary education (1st to 4th grades) predominated (n= 40). Finally, concerning age groups, individuals aged 20 to 59 years were the most affected (n= 73). **CONCLUSION:** Therefore, men of working age with low educational attainment emerge as the target audience for the intensified health promotion efforts, particularly among socioeconomically disadvantaged populations lacking access to basic sanitation, riverside communities, and individuals reliant on freshwater fishing due to their contact with rivers. Thus, there is a discernible need to focus on this segment of the population in combating the spread of this disease.

**197. MORTALITY PROFILE FROM ARTERIAL EMBOLISM AND THROMBOSIS IN MARANHÃO FROM 2013 TO 2022.**

Paulo Victor Nascimento Silva<sup>1</sup>, Douglas Da Costa Siqueira<sup>1</sup>, Lissandro Marlon Castro Santos<sup>1</sup>, Suzana Patricia Santos Rodrigues<sup>1</sup>, Carolinne Sousa Dourado<sup>1</sup>, Raphael de Matos Lima<sup>1</sup>, Kathyusses Caldas Galvao<sup>1</sup>

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**INTRODUCTION:** Embolism occurs as a consequence of a thrombus, which can be formed in both the venous and arterial systems. In which it comes off and, depending on its location, can block arteries, making it difficult to oxygenate important tissues or organs. Thrombosis can occur after surgical procedures or even due to lack of exercise for a prolonged period of time. It is more common in women, aged between 20-40 years, and due to greater exposure to risk factors, such as contraceptives and pregnancies. In this sense, the study aims to analyze the increase in the mortality rate related to embolism and arterial thrombosis in Maranhão. **METHODS:** Epidemiological study of the mortality profile in the State of Maranhão on embolism and arterial thrombosis from 2013 to 2022. The online platforms of the Ministry of Health of the Department of Informatics of the Unified Health System (DATASUS) were used by the Morbidity and Hospital System of the SUS (SIH/SUS). The related data were stratified into: race/color, age group, nature of care and sex. **RESULTS:** The mortality rate due to embolism and arterial thrombosis in Maranhão was 8.62 deaths per Hospital Admission Authorization (deaths/AIH) from 2013 to 2022, with emphasis on 2020, with 13.25 (deaths/AIH). In the age group, there was a higher prevalence for children under 1 year old (33.33 deaths/AIH) and between 10-14 years old (16.61 deaths/AIH), followed by 80 years and over (13.38 deaths/AIH). Regarding race/color, there was greater emphasis on self-declared yellow women, with 12 deaths/AIH, followed by brown women (10.37 deaths/AIH) and white women (6.52 deaths/AIH). Regarding the number of deaths by type of care, there was a predominance of urgency, with 103 deaths, compared to elective deaths, with 17 deaths. Furthermore, with regard to sex, there is a slight emphasis on females, with 8.67 deaths/AIH compared to 8.58 deaths/AIH among males. **CONCLUSION:** Individuals of yellow race/color, under 1 year of age, female and requiring emergency care in the period between 2018 and 2022 represent the epidemiological profile of mortality due to embolism and arterial thrombosis. Furthermore, there is underreporting regarding black race/color. This analysis favors the increase of actions in urgent and emergency care, through continued education of professionals and improvement in technical knowledge on the subject, as a way of promoting better behavior for the patient in order to reduce the mortality rate.

**198. EPIDEMIOLOGICAL PROFILE OF DENGUE IN BAIXADA MARANHENSE FROM 2018 TO 2022**

Emanuele Cristine Santos Marinho<sup>1</sup>, Pedro Henrique Delfim Pessoa<sup>1</sup>, Fernando Alberto Costa Cardoso da Silva Filho<sup>1</sup>, Adeany Yasmim Morgado Reis<sup>1</sup>, Marcelle Teixeira e Silva<sup>1</sup>, Higinia Cristina da Silva Araújo<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>

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**INTRODUCTION:** Dengue is an acute viral infection very present in tropical and subtropical regions. The dengue virus (DENV) has four serotypes (DENV-1, DENV-2, DENV-3 and DENV-4), which cause different clinical manifestations, and are transmitted through mosquitoes of the genus *Aedes*, and in Brazil it stands out *Aedes aegypti*. This study aims to outline the epidemiological profile of dengue in the Baixada Maranhense microregion from 2018 to 2022. **METHODS:** Epidemiological, quantitative, time series study (2018-2022), with secondary data from TABNET-DATASUS-Disease Information System of Notification (SINAN). Variables under study: Dengue; Year of notification; gender, age group, race and education. **RESULTS:** 606 cases were reported in Baixada Maranhense from 2018 to 2022. The year with the most notifications was 2022 (n=290), followed by 2019 (n=151). The most prevalent age groups were 20-39 years (n=210) and 40-59 (141), which together represent approximately 58% of notifications. The level of education with the highest number of cases was completed secondary education (n=141). The race with the highest occurrence was self-declared brown (n=438) with more than 70% of cases. There was a balance between the sexes, but with a higher occurrence in females (n=334) than in males (n=272). **CONCLUSION:** It can be inferred that the population most affected by the virus are women, mixed race, with complete secondary education, aged 20 to 39 years. This profile may be caused by women doing more domestic work and spending more time in the house, in addition to the fact that the population of Maranhão is mostly self-declared mixed race. As shown in the results, dengue continues to be an important public health problem and demonstrates the need to intensify actions for prevention and health promotion, mainly for the population most affected by the virus, in addition to measures aimed at controlling the vector.

199. **EPIDEMIOLOGICAL PROFILE OF OSTEOARTICULAR TUBERCULOSIS IN NORTHEAST BRAZIL FROM 2018 TO 2023.**

Camila de Carvalho Vieira<sup>1</sup>, Fernanda Karolynne Sousa Coimbra<sup>1</sup>, Wesley do Nascimento Silva<sup>1</sup>, Ana Carolina Silva Rocha<sup>1</sup>, Pedro Victor Aguiar Carvalho<sup>1</sup>, Gabriela Antônia Baquil Telles<sup>2</sup>, Leopoldina Milanez da Silva Leite<sup>1</sup>

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**INTRODUCTION:** Tuberculosis (TB) is an infectious and contagious disease primarily caused by *Mycobacterium tuberculosis*, a bacterium that can be transmitted through speech, sneezing, or coughing and mainly affects the lungs but can also manifest extrapulmonary involvement, affecting other regions of the body, including the skeletal and articular system. Osteoarticular TB may manifest as arthritis and/or osteomyelitis, with joint inflammation affecting vertebrae in the spine. In Brazil, TB still has a high prevalence, with the Northeast (NE) region being one of the main contributors to the disease's mortality coefficient. Given this background and the scarcity of recent studies on TB with osteoarticular involvement in the Northeastern population, this study aims to outline the epidemiological profile of this condition in the region. **METHODS:** This is a descriptive epidemiological study, utilizing data obtained from the Unified Health System Hospital Information System (SIH/SUS), linked to DATASUS, between July 2018 and July 2023. Variables included are hospitalization by region and federative unit, gender, race/ethnicity, age group, and deaths. Due to the use of secondary data, approval from the Research Ethics Committee was not required. **RESULTS:** In the period from July 2018 to July 2023, a total of 507 hospitalizations for osteoarticular TB were observed in Brazil, with the Southeast (235) and Northeast (158) being the most frequently reported regions. This could be linked to the high population density in these areas, leading to an increased number of diagnoses and registrations. The majority of patients were male (57.6%), of brown skin color/ethnicity (75.3%), and aged between 35 and 39 years, findings consistent with previous research on TB in the country. In the NE, the majority of cases were reported in Pernambuco, accounting for 52 hospitalizations, approximately 32.9% of the region's total. Additionally, during the period, a total of 4 deaths were recorded in this area, with two reported in Rio Grande do Norte and two in Pernambuco. **CONCLUSION:** This study showed that the epidemiological profile of hospitalizations for osteoarticular TB in the Northeast is predominantly composed of men of brown skin color/ethnicity, aged between 35 and 39 years.

200. **PROFILE OF WORK-RELATED MENTAL DISORDERS IN MARANHÃO, 2012-2022.**

Mariana Clara Borges da Silva<sup>1</sup>, Luanna Stefanny Campos do Nascimento<sup>1</sup>, Myrelle Salgueiro Porto de Sá<sup>1</sup>, Antônia Márcia Dutra Rabelo<sup>1</sup>, João Henrique Xavier de Oliveira<sup>1</sup>, Alice Marques Moreira Lima<sup>2</sup>

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**INTRODUCTION:** Work-Related Mental Disorders (TMRT) are a set of pathologies that present work as the main triggering and stressful factor, which can establish the transposition of physical and psychological limits in the work environment, causing mental fatigue, excessive sadness, inefficient professional results, between others. Today, it is a growing problem in Brazilian public health. Thus, the objective of this study was to analyze the profile of patients with TMRT in Maranhão between 2012 and 2022. **METHODS:** This is a retrospective, quantitative and descriptive study, in which secondary data were collected from the Health Disease Information System. Notification (SINAN/SUS) available at the Information Technology Department of the Unified Health System (DATASUS). In this way, the race, sex and education of the patients were analyzed. **RESULTS:** 76 cases of TMRT were reported, mainly mood and neurotic disorders and Burnout Syndrome. In this sense, the period of greatest incidence was the period 2020-2022, representing around 62% of cases. Of this total, 49 cases progressed to temporary disability and only 0.03% progressed to cure. In relation to color/race, the brown population was the most affected, representing 59.2% of notifications. Now, turning to sex, the majority were female, with 67.1% of the records. It was also found that the population with completed higher education was the most impacted, as it represents 34.2%, followed by those with completed secondary education, with 18.4%. **CONCLUSION:** In short, with the analysis carried out it is possible to verify that the COVID-19 pandemic period impacted the mental health of workers, who presented financial instabilities associated with social isolation, in addition to the problem of professionals in relating mental disorders with the work may have caused the failure of the therapeutic process, resulting in the evolution being so limited to a cure. Furthermore, according to IBGE, Maranhão has a majority of brown population, which is why this color/race is highly affected, women are possibly more impacted by gender inequality, in addition to harassment in the workplace. Furthermore, the excessive pace of work and reduced time are factors that justify the higher rates in patients with completed higher education. Finally, it is important to maintain a healthy work environment as a way of guaranteeing the population's quality of life.



**201. SEPSIS HOSPITALIZATION PROFILE IN THE NORTHEAST FROM 2016 TO 2023.**

João Pedro Coutinho de Oliveira Pascoal<sup>1</sup>; João Pedro Dos Santos Silva<sup>1</sup>; Bruna De Oliveira Montes do Rosário<sup>1</sup>; Robson Emmanuel Silva Sampaio<sup>1</sup>; Gehorgan Oliveira dos Reis<sup>1</sup>; João Pedro Cruz Nascimento<sup>1</sup>; Gabriel Almeida Teixeira<sup>1</sup>

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**INTRODUCTION:** Sepsis is a severe generalized infection requiring immediate medical attention, caused by pathogens such as fungi, bacteria, and viruses. It occurs when the immune system attempts to counteract the attack of these microorganisms, triggering an inflammatory response that, adversely, leads to exaggerated reactions and complications in other organs. In this context, it is pertinent to analyze the hospitalization profile in the Northeast region over the past 8 years, aiming to explore prevention and early treatment alternatives in hospitals. **METHODS:** This is an observational epidemiological study conducted using the Tabulation Tool (TABNET) available on the DATASUS digital platform. Selected categories from the Hospital Morbidity of the Unified Health System (SUS) were examined, focusing on the Northeast region of Brazil, including hospitalization data from January 2016 to August 2023. Data were also stratified by gender, age group, race/ethnicity, and care nature. **RESULTS:** During the analyzed period, the Northeast region accounted for 26.64% (23,923,857) of the nation's total. The year with the highest number of observed cases was 2022 (14.13%). Urgent care (78.72%) significantly exceeded elective care (20.36%) overall, consistently across all states, with notable figures in Ceará (81.98%), Bahia (78.71%), and Pernambuco (76.68%). Stratified profiles indicated a higher incidence in the 20-29 age group (18.84%), predominantly in females (61.14%), and individuals of pardo ethnicity (82.67%), excluding those with unspecified race/ethnicity. **CONCLUSION:** In light of the findings, there is a notable increase in sepsis hospitalizations in the Northeast, particularly among women, individuals of pardo ethnicity, and the 20-29 age group. Consequently, preventive measures such as up-to-date vaccinations, maintaining hospital hygiene, and secure wound care are imperative. Regarding treatment, enhanced training for professionals in antibiotic management and therapies is crucial for timely and effective intervention.

**202. PROFILE OF CHILDREN'S HOSPITALIZATIONS FOR INFLUENZA IN MARANHÃO BETWEEN 2018 AND 2022**

Safira Pontes de Almeida Costa<sup>1</sup>, Graziela Gama da Conceição Gomes<sup>1</sup>, Sarah Gonçalves Torres de Sá<sup>1</sup>, Katarina Costa Silva<sup>1</sup>, Ana Mariza dos Santos Gonçalves<sup>1</sup>, Stephanie Freire Soares de Farias<sup>1</sup>

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**INTRODUCTION:** Influenza, caused by the influenza virus, is easily confused with other illnesses due to symptoms similar to other illnesses. Because of this, there is great difficulty on the part of society in understanding the identification of flu-like symptoms in children, a fact that favors the maintenance of transmission of the virus. Therefore, the study aims to analyze data on hospitalizations, aged 0 to 14 years, due to Influenza in Maranhão. **METHODS:** This is an epidemiological, quantitative and descriptive study. The information was obtained through the Notifiable Diseases Information System (SINAN), in October 2023 and made available through the DATASUS/TABNET platform, through the SUS Hospital Morbidity indicator, adopting Maranhão as the place of hospitalization. Furthermore, "Influenza (flu)" was selected in the ICD-10 Morbidity List, for annual assessment in the period from 2018 to 2022, taking into account: Age Group (from 0 to 14 years), Health Region (CIR), Sex and Color/race. **RESULTS:** During the period studied, 5,436 cases of hospitalizations for Influenza were registered in Maranhão, of which 46.26% correspond to the age group of 1 to 4 years, being the interval with the highest occurrence. Furthermore, 15.32% of cases correspond to the age group of 10 to 14 years, being the lowest occurrence. Regarding the health region, São João dos Patos represented the largest number of records (n = 976) in the state. Regarding sex, 52.91% of cases are male children. Finally, of the registered incidents, 29.32% did not provide data on color/race, and of those that did, 89.15% were mentioned in the system as mixed race. The analysis was hampered by the lack of information in the system. Thus, Influenza is a disease that has a hospitalization profile for male children, aged 1 to 4 years old, of mixed race. **CONCLUSION:** Therefore, the epidemiological representation allows us to observe that the age group with the highest occurrence coincides with the moment in which children are placed in daycare centers and schools, which makes them more susceptible to the virus contagion. For this reason, it is possible, through this analysis, to perceive the group most vulnerable to the disease, thus allowing the creation of targeted social assistance policies that are more effective in combating the transmission of the virus and the consequent hospitalization.

**203. CAESAREAN PROFILE IN MARANHÃO BASED ON THE ROBSON CLASSIFICATION (2017-2021)**

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**INTRODUCTION:** Cesarean section is an essential procedure in contemporary obstetrics, but high rates pose risks to maternal and neonatal health. The Robson classification is used to compare this rate in various obstetric populations, providing an overview of delivery practices in different population strata. The aim of this study is to explore the profile of cesarean sections in Maranhão between 2017 and 2021, evaluating variations in patterns and main affected Robson groups. **METHODS:** This is a descriptive, cross-sectional, quantitative study, with information collected from the Department of Informatics of the Unified Health System (DATASUS) from 2017 to 2021, in Maranhão. Data on live births were analyzed, focusing on the type of delivery performed in association with maternal education and the Robson group. Records with incomplete or missing data were not considered. **RESULTS:** The state recorded 556,678 births during the period, of which 49.43% were cesarean sections, a rate lower than the national average of 56.45% cesarean sections for the same period. There was a progressive increase in the cesarean section rate during the period, from 46.33% in 2017 to 52.00% in 2021. The Robson groups with the highest rates of cesarean sections were groups 5, 1, and 3, representing 32.49%, 23.97%, and 14.07% of the total cesarean sections performed, respectively. Additionally, even among primiparous women in group 1, nearly half of their deliveries (49.24% of the total 126,913) were through cesarean section. It was also observed that higher maternal education is associated with a lower proportion of vaginal deliveries and an increase in cesarean sections. Among mothers with no education (4,921), 72.20% of deliveries were vaginal and 27.80% were cesarean. In contrast, for mothers with  $\geq 12$  years of education (60,697), only 22.45% of deliveries were vaginal, while 77.55% were cesarean. Furthermore, 82.70% of cesarean deliveries occurred in mothers with more than 8 years of education. **CONCLUSION:** There was an increase in the cesarean section rate in recent years in the state, with a higher prevalence in Robson groups 5, 1, and 3. Moreover, there is a significant number of cesarean sections in primiparous women who ideally could have vaginal deliveries. Additionally, the disparity in cesarean section rates based on education level highlights the role of education in decision-making related to childbirth. These findings raise questions about the need for more rigorous obstetric practices based on scientific evidence.

**204. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR INTRACRANIAL HEMORRHAGE IN THE NORTHEAST**

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**INTRODUCTION:** Intracranial hemorrhage is characterized by initial bleeding in the brain parenchyma, which can affect the meningeal space and later the ventricles, causing focal neurological deficits, usually with sudden onset of headache, nausea and altered consciousness. The aim of this study is to show an epidemiological survey of hospitalizations for intracranial hemorrhage in the Northeast region between 2012 and 2022. **METHODS:** This was an epidemiological, quantitative, cross-sectional and retrospective study. Data was collected from the SUS Hospital Information System, made available by DATASUS (SIH/SUS) from 2012 to 2022. The variables analyzed were: geographical and annual distribution of hospitalizations, gender, race, age group and deaths. **RESULTS:** In the period analyzed, 316,698 hospitalizations for intracranial hemorrhage were reported in Brazil, with the Northeast region accounting for 24.16% (n=76,542) of this total, ranking 2nd in hospitalizations among Brazilian regions, with an average of approximately 6,958 cases per year. The states of Pernambuco and Bahia stand out, with 17,682 and 13,180 hospitalizations, in that order, representing 40.32% of the total. The state of Maranhão came 4th in total hospitalizations with 13.44% (n=10,294). The years 2012 and 2013 are noteworthy for having the highest number of hospitalizations with 10,488 and 7,743, respectively. The most affected age group was 50 to 69 years old, which accounted for 40.02% (n=30,839) of all hospitalizations. With regard to deaths, the Northeast had 16,157 cases, with 2012 and 2022 having the highest fatal outcomes, with 2,057 and 1,670 deaths respectively. Another parameter analyzed was the prevalence between the sexes, which showed a difference between the two of 682 hospitalizations, with females being more affected. Regarding color/race, the most affected were brown people with 46.48% (n=35,577) of hospitalizations. **CONCLUSION:** This study shows that hospitalizations for intracranial hemorrhage occurred predominantly in the states of Pernambuco and Bahia in 2012 and 2013. The most affected individuals are in the 50-69 age group, with a higher incidence among females and the brown population, confirming the greater susceptibility of these groups to this condition.

205. **EPIDEMIOLOGICAL PROFILE OF CUTANEOUS LEISHMANIASIS IN THE BAIXADA MARANHENSE FROM 2018 TO 2022.**

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**INTRODUCTION:** Cutaneous leishmaniasis is an anthroponozoonosis that can affect the skin and mucosa of individuals. This disease affects people all over the world, particularly in tropical and subtropical regions. This study aims to investigate the profile of patients with cutaneous leishmaniasis in the Baixada Maranhense from 2018 to 2022, understanding their distribution within this region according to different categories, as well as their most prevalent clinical characteristic. **METHODS:** This is a descriptive quantitative study based on secondary data from the Department of Informatics of the Unified Health System (DATASUS), outpatient production (SINAN/SUS) on the number of confirmed cases of cutaneous leishmaniasis per municipality in the Baixada Maranhense region during the years 2018 to 2022, with the observation of different incidences according to the variables: schooling, race, sex and age group, as well as clinical manifestations. **RESULTS:** The study revealed a high occurrence of cutaneous leishmaniasis in the Baixada Maranhense during the period studied, especially in the municipality of Pinheiro-MA, which presents 96 of the 335 cases recorded. The most affected ethnicity is brown, as these make up 70% of the patients, when analyzing the prevalence in individuals with different levels of education, it was observed a greater involvement of those with low education, about 22% do not have complete elementary school, when comparing the most affected sex it is noted that the male suffers more frequently, with a percentage of 72, 8% contamination, analyzing the age group of the sick, it was noticed that the elderly and children are little infected, with only 68 infected individuals, while among adults there were 267 people with the disease. Depending on the clinical manifestation, the most prominent form is cutaneous, with 317 cases, that is, a total of more than 95% of the patients had this manifestation of the disease, compared to 5% with the mucosal form. **CONCLUSION:** Thus, it is concluded that the cutaneous form of cutaneous leishmaniasis is more prevalent in the region of Baixada Maranhense, especially in Pinheiro-MA. In addition, different groups affected by the disease are identified, with the most affected being brown people, the majority of the population in this region, as well as adult men with less schooling, factors that should be taken into account to direct the implementation of preventive strategies, aiming at improving the quality of life in the region studied.

206. **EPIDEMIOLOGICAL PROFILE OF NEONATAL MORTALITY IN BRAZIL BETWEEN 2011 AND 2021**

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**INTRODUCTION:** Neonatal mortality is a global health concern that consists of the number of deaths of newborns occurring within the first 27 days of life. It is an indicator of the quality of maternal and child care in a society, reflecting not only medical advancements but also socioeconomic factors and access to health services. Thus, this study aims to analyze the national epidemiological panorama of neonatal mortality between 2011 and 2021. **METHODS:** This is a descriptive and ecological study, analyzing the epidemiological profile of neonatal mortality in Brazil between the years 2011 and 2021. The data used were obtained through SIM/DATASUS and tabulated by TABWIN and TABNET. The variables analyzed were region, year, cause and place of death, sex, race/ethnicity, birth weight, gestational age, and type of gestation. **RESULTS:** When analyzing data on neonatal mortality in Brazil, a total of 280,037 deaths were observed, with approximately 35% occurring in the Southeast region, followed by the Northeast (32%), North (12%), South (11%), and Midwest (8%). In 2021, compared to 2011, there was a decrease of approximately 19% in occurrences. Early neonatal mortality represented about 75% of deaths. Regarding sex, 55% were male. Mortality by race/ethnicity followed this order: mixed race (47%), white (38%), black (2%), indigenous (1%), and yellow (<1%). Concerning the place of occurrence, approximately 96% of deaths occurred in hospitals. Gestational duration was between 22 and 27 weeks in 27% of cases, while full-term births (37 to 41 weeks) accounted for 21%. Singleton pregnancies accounted for 84% of deaths. About half (51%) of births were vaginal. Regarding birth weight, approximately 30% were between 500 and 999g. As for the cause of death, 27% corresponded to specific respiratory and cardiovascular disorders of the perinatal period. **CONCLUSION:** It is noted that the number of neonatal deaths is still high, although it has decreased in the analyzed period. The epidemiological profile of neonatal mortality in Brazil is characterized by male neonates, mixed race, singleton pregnancies, occurring in a hospital setting, in the Southeast region, with early neonatal mortality, in a situation of extreme prematurity, and predominantly low birth weight. Thus, identifying this epidemiological profile is of great importance for the creation of public health policies aimed at reducing neonatal mortality in Brazil.

207. **MORTALITY PROFILE OF VIRAL AND BACTERIAL PNEUMONIA IN MARANHÃO FROM 2017 TO 2021**

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**INTRODUCTION:** The most common infections that affect humans are respiratory tract infections. Pneumonia is one of the main causes of hospitalization in Brazil, especially affecting the pulmonary alveoli, often leading to the death of the patient. There are several types of pneumonia, but the most common are bacterial, caused mainly by the bacteria *Streptococcus pneumoniae*, and viral infections, caused mainly by the Influenza A and B viruses. Therefore, this study aims to analyze the mortality profile due to viral and bacterial pneumonia in the state of Maranhão from 2017 to 2021. **METHODS:** This is a cross-sectional and descriptive study of mortality caused by viral (category ICD 10 - J12) and bacterial (category ICD 10 - J15) pneumonia in the state of Maranhão, in which the data obtained was collected by the Departamento de Informática do Sistema Único de Saúde (DATASUS) in the period from 2017 to 2021. The variables age group, sex, color/race and municipality were analyzed. In the age group variable, the "ignored age" data was discarded. **RESULTS:** Analyzing these 5 years, 3,069 deaths were observed, 849 (27.6%) from viral pneumonia and 2,220 (72.4%) from bacterial pneumonia. Both diseases affect the elderly more, especially those over 80 years of age, with 242 deaths from viral pneumonia and 969 deaths from bacterial pneumonia in this age group. There is also a higher mortality rate among males who self-declare as brown. São Luís, capital of the state of Maranhão, was the city with the highest number of recorded deaths, accounting for 355 deaths from viral pneumonia and 436 deaths from bacterial pneumonia, totaling 791 deaths, equivalent to approximately 26% of total deaths in the state. **CONCLUSION:** In the time period analyzed, there is a greater mortality caused by bacterial pneumonia compared to viral pneumonia. The population that died most from pneumonia was elderly people over 80 years old, males who declared themselves mixed race. This can be explained by a decrease in the competence of the immune system with increasing age and also by the greater number of brown people in the population of Maranhão. In this way, the study shows the most vulnerable social group, enabling greater attention from public bodies responsible for health promotion, with the aim of mitigating complications from pneumonia and avoiding possible deaths.

208. **PROFILE OF ADMISSIONS FOR HEART FAILURE IN MARANHÃO BETWEEN 2018 TO 2022**

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**INTRODUCTION:** Heart failure (HF) is a very complex syndrome with high morbidity and mortality rates, in which the heart loses its ability to pump blood, limiting the functioning of tissue metabolism. This condition can be caused by structural or functional changes in the heart, which present typical signs and symptoms resulting from high filling pressures or reduced cardiac output. Therefore, this study aims to update the profile of hospitalizations for HF in the state of Maranhão from 2018 to 2022. **METHODS:** This is an epidemiological, quantitative and descriptive study. The information was obtained through DATASUS/TABNET, using the SUS Hospital Morbidity indicator, adopting Maranhão as the place of hospitalization. Furthermore, All Categories in the Health Region (CIR) and Heart Failure in the ICD-10 Morbidity List were selected for annual evaluation from 2018 to 2022, taking into account: age group, sex and race. **RESULTS:** During the period studied, there were a total of 17,353 hospitalizations for HF in Maranhão, with 2022 being the year with the highest number of cases (4,622) and 2020 being the year with the lowest number of cases (2,583). Furthermore, 22.3% occurrences occurred in São Luís, making it the health region most affected in the study; As it is the capital of Maranhão, it is the city with the largest population and a more complex health system. In the age group, from 5 years of age onwards, the growth of cases is linear, with patients over 80 years of age having the highest incidence rate (n = 4,122). Of the total, 55.7% are male and 44.3% are female. Regarding color/race, 42.1% of cases have no information and, despite this, 45.5% are self-declared mixed race and 12.4% are listed as white, black or yellow color/race. Thus, HF is a disease whose admission profile is male, mixed-race and elderly patients. **CONCLUSION:** Thus, HF is a syndrome that is linked to good physiological functioning of the body, with the passage of age, these aspects are influenced by exogenous and endogenous factors, thus, the risks of acquiring this disease are greater. Therefore, it is essential to carry out more research so that it is possible to outline an effective public policy to prevent the disease and thus prevent it from reaching an advanced stage.

**209. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR LEPROSY IN MARANHÃO FROM 2012 TO 2022**

Maria Fernanda Sousa Linhares<sup>1</sup>, Ana Clara Abreu Mendes<sup>1</sup>, Ana Lurdes Portela de Araújo<sup>1</sup>, Isadora Marçal Barbosa Fernandes<sup>1</sup>, Ivana Maria Batista dos Santos<sup>1</sup>, Marcella Esser Los<sup>1</sup>, Vítor Castro dos Santos<sup>1</sup>

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**INTRODUCTION:** Leprosy is an infectious disease, with a chronic evolution, caused by the bacteria *Mycobacterium leprae*. It mainly affects the skin, mucous membranes and peripheral nerves (arms and legs), with the capacity to cause neural injuries and irreversible damage if diagnosis is late or treatment is inadequate. Brazil ranks 2nd in the world among countries that register new cases, therefore, the disease remains an important public health problem in the country, requiring compulsory notification and mandatory investigation. Given this scenario, the objective of this work is to describe the epidemiological profile of hospitalizations for leprosy in Maranhão over the last 10 years. **METHODS:** systematic descriptive epidemiological study, with a quantitative approach. Data from the SUS Hospital Information System (SIH/SUS) on leprosy were analyzed, in the variables hospitalizations, year of processing, age group, sex, color/race, nature of care, deaths and mortality rate. The data was categorized and tabulated using Microsoft Office Excel 2016, organized into graphs and tables. **Keywords:** ipsa, consequatur, galisum. **RESULTS:** a total of 4,630 hospitalizations for leprosy were recorded, with the highest number being in 2022 (14.9%), followed by 2021 (13%) and 2020 (12.9%). In the age group variable, the disease caused more hospitalizations in patients between 30 and 39 years old (19.4%), followed by the age group between 40 and 49 years old (17.2%). In relation to sex, males represent 71.8% of cases and females 28.1%. In the color/race variable, 72.4% were not informed and 25.3% were mixed race. When seeking care, 9% were elective and 91% were urgent. In the evolution of cases, 114 died. The lowest mortality rate was 0.67 in 2014 and the highest was 3.53 in 2019. **CONCLUSION:** this study concluded that the epidemiological profile of leprosy hospitalized patients, in the period from 2012 to 2022, corresponds mostly to patients between 30 to 49 years old, male without identification of color/race. Furthermore, it was evident that the majority of care was urgent, with a significant number of deaths, with an average mortality rate of 2.46. Given this, the number of hospitalizations is alarming, therefore, it is essential to implement public policies in the area of health for early diagnosis and treatment of leprosy, to prevent the severe form of the disease and, consequently, reduce the number of hospitalizations and deaths.

**210. DEMOGRAPHIC PROFILE OF OBESITY IN ADULTS BETWEEN 2019 AND 2023 IN IMPERATRIZ CITY, MARANHÃO: A GENDER-BASED ANALYSIS.**

Larissa de Sousa Miranda<sup>1</sup>, Larissa Saboia de Freitas Diógenes<sup>1</sup>, Débora Gonçalves de Oliveira<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Pedro Lucas Baía da Paixão<sup>1</sup>, Bruno Luiz de Paula Pereira<sup>1</sup>, Alice Marques Moreira Lima<sup>1</sup>

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**INTRODUCTION:** Obesity is a chronic and multifactorial disease characterized by an excess of body fat. According to the 2019 National Health Survey conducted by the Brazilian Institute of Geography and Statistics (IBGE), the proportion of obese individuals in Brazil aged 20 or older increased between 2003 and 2019, reaching 30.2% for females and 26.8% for males. Despite this national trend, there is a dearth of municipal-level studies in Brazil. Therefore, this study aims to analyze the demographic profile of obesity in adults in Imperatriz City, Maranhão, between 2019 and 2023, with a focus on gender. **METHODS:** This research adopts a cross-sectional and quantitative approach, examining the adult obese population of Imperatriz. Data collection from 2019 to 2023 utilized the Food and Nutritional Surveillance System (SISVAN). Absolute and percentage values of obese adult citizens, categorized by gender, were compiled and tabulated using Microsoft Excel to delineate the demographic profile in the specified municipality. **RESULTS:** Analysis of the collected data in Imperatriz between 2019 and 2023 revealed a prevalence of obesity, irrespective of severity, among females. In 2019, out of 4,586 individuals with some degree of obesity, 92.89% were females, while only 7.11% were males. In 2020, out of 3,505 obese individuals, 86.36% were females and 13.64% were males. In 2021, out of 4,357 obese individuals, 85.44% were females and 14.56% were males. In 2022, out of 9,855 individuals, females constituted 77.99%, and males were 22.1%. Finally, in 2023, out of 8,731 obese individuals, the female percentage was 78.35%, while the male percentage was 21.65%. **CONCLUSION:** The data suggests that, despite a decrease in the percentage of obese females each year and an increase in males, the trend of female obesity predominance persisted, consistently exceeding 75% of the total. These findings align with the national demographic profile conducted by the IBGE in 2019, emphasizing the need for public policies that address the underlying reasons that make women more susceptible to excess weight. Furthermore, the lower number of males in the SISVAN data highlights the urgency of intensifying health programs targeting male populations for more comprehensive care.

**211. PROFILE OF DISCHARGE IN ADMISSIONS FOR MENINGITIS IN MARANHÃO FROM 2017 TO 2022.**

André Aquim Salgado Prazeres Picanço<sup>1</sup>, Paulo Cesar Santos Filho<sup>1</sup>, Juliana Gomes Santos<sup>1</sup>, Biatriz Costa Diniz<sup>1</sup>, Laina Luiza Pitombeira Rocha<sup>1</sup>, Thatyelen Soares Tavares<sup>1</sup>, Evilyn Amorim Dantas

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**INTRODUCTION:** Meningitis is a global public health problem caused by inflammation of the meninges, which can have different etiologies such as viruses, fungi and bacteria. Due to its inflammatory nature being located in the CNS, some forms of meningitis make the disease more serious and lethal. In Brazil, the fatality rate is around 21%. Given the scenario presented, due to the damage to Brazilian health, the objective was to define the situation in Maranhão in the treatment of meningitis by comparing the numbers of hospitalizations and hospital discharges. **METHODS:** This is a retrospective descriptive study, in which the data used were collected from the SUS Hospital Information System (SIH/SUS) available by the Department of Informatics of the Unified Health System (DATASUS). For the delimitation of the epidemiological profile, hospitalizations for meningitis in Maranhão that occurred between 2017 and 2022 were considered, with the variables: sex, age group and race/color of patients. **RESULTS:** During the period studied, Maranhão recorded 751 hospitalizations for meningitis, of which 474 were discharged from hospital. Given this, it is observed that 63.9% of male patients admitted were discharged, a figure very similar to female patients, with 62%. In terms of age groups, people between the ages of 65 and 69 showed the lowest percentage of upward progression with only 27% of total hospitalizations, while in more extreme groups of the age spectrum – specifically from 1 to 4 years of age and with 80 years or more – both continued with around 80% of positive evolution. Furthermore, with regard to race/color, there is also a significant disparity in values, the group of black people accounted for just over 55.8% of hospitalizations that increased, compared to other values – whites (71.4%), Yellows (66.6%), mixed race (62.3%) and indigenous people (100%) – a certain disparity can be seen. **CONCLUSION:** Therefore, the profile of patients with the best prognosis in the face of hospitalization for meningitis are people aged 1 to 4 years or over 80 years of age, there is no great disparity between the sexes, regarding race/color, indigenous people have the greatest upside potential. On the other hand, black people and elderly people aged 65 to 69 have the worst prognosis. In this way, the identification of the epidemiological profile helps to define the treatment approach, especially in groups at greatest risk when hospitalized.

**212. PROFILE OF ADMISSIONS FOR THE USE OF PSYCHOACTIVE SUBSTANCES IN MARANHÃO FROM 2018 TO 2023**

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**INTRODUCTION:** The use of psychoactive substances constitutes an important public health problem in Brazil, especially as it affects the vast majority of young people, in addition to being associated with psychiatric disorders, which can often make their daily life and work activities difficult or disabling individuals. It is observed that the time frame of the SARS-COV2 pandemic directly influenced the increase in the number of cases and hospitalizations, especially in the most urbanized macro-region of the state. The objective of the work is to analyze the profile of international interactions due to the use of psychoactive substances, except alcohol, in Maranhão. **METHODS:** This is an epidemiological, retrospective, quantitative and descriptive study based on data made available by the Department of Informatics of the Unified Health System (DATASUS). The studied population was recorded by cases of hospital admissions due to the use of psychoactive substances, with the exception of alcohol, in the state of Maranhão, between the period from July 2018 to July 2023. The correlated variables were: number of hospitalizations, year of service, sex, color/race, age group, amount spent. **RESULTS:** During the training period, 3,293 hospitalizations were observed and the North macro-region had the highest rate with 2,410 (73.18%). The year 2022 stood out for the highest number of hospitalizations with 823 cases. The most affected race was brown with 2,130 (64.68%), however, 727 (22.07%) records did not inform the color/race. Males had a higher incidence in 83.63% hospitalizations. The most affected age group is from 20 to 29 years old with 1,082 (32.85%) followed by 1,050 cases (31.88%) from 30 to 39 years old, with disorders such as schizophrenia and dependence syndrome due to use of cannabinoids. The amount spent on hospitalizations had a progressive increase when compared to 2018 and 2019 of approximately 59%, as R\$ 985,969.27 and R\$ 1,567,109.85 were spent respectively. **CONCLUSION:** Given the data, the high prevalence of hospitalizations for the use of psychoactive substances in Maranhão is notable. Mental disorders and behaviors resulting from the use of these substances are responsible for repercussions throughout society. Therefore, it is necessary to implement preventive measures and health education to address this issue, thus contributing to preventing health problems as well as minimizing social costs and public spending.

213. **EPIDEMIOLOGICAL PROFILE OF ADMISSIONS FOR DIABETES MELLITUS IN MARANHÃO BETWEEN 2020 TO 2022**

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**INTRODUCTION:** Diabetes Mellitus (DM) is characterized as a group of non-communicable and heterogeneous chronic diseases that have as a common characteristic hyperglycemia for a long period of time. These high serum glucose levels result in several micro and macrovascular complications and are responsible for high morbidity and mortality. Diabetes can be divided into three main types: type 1 DM; Type 2 DM and gestational DM. As it is a highly disabling disease, this study seeks to understand the epidemiology of hospitalizations for diabetes mellitus in the state of Maranhão between the years 2020 and 2022. **METHODS:** The present study is of an observational cross-sectional analytical type in which data collected on the DATASUS platform were used. The variables used were sex, race and age group. The population studied was patients hospitalized for diabetes mellitus in the period from 2020 to 2022. **RESULTS:** When analyzing the cases of hospitalization for diabetes in Maranhão in the period from 2020 to 2022, it is clear that there was a higher incidence in the brown population, with a percentage of 63.7%, while there was a lower incidence in the white population, representing 2.6%. In relation to the age group, it is observed that the incidence in the age group over 50 corresponds to 78.63%, which may suggest a much greater predominance of hospitalizations caused by type 2 diabetes than type 1. Comparing the genders, there was a small predominance of females, with 51.8%. **CONCLUSION:** Based on what was presented, it is clear that there is a greater predominance of hospitalizations for diabetes mellitus in the brown population and in the age group over 50 years of age. There was little discrepancy in data regarding the affected male and female population. Therefore, understanding the epidemiological profile of these hospitalizations in the period from 2020 to 2022 is very important to outline public strategies to control and reduce hospitalizations caused by diabetes mellitus in Maranhão.

214. **PROFILE OF ADMISSIONS FOR RHEUMATIC HEART DISEASE IN MARANHÃO IN THE LAST DECADE**

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**INTRODUCTION:** Rheumatic fever arises as an autoimmune response to pharyngitis caused by infection with group A  $\beta$ -hemolytic streptococci. The main chronic complication is Chronic Rheumatic Heart Disease, which occurs in genetically susceptible individuals who had a delayed immune response. It is characterized by valve fibrosis and calcification. In this study, our objective is to analyze the pattern of hospitalizations related to chronic rheumatic heart diseases in the state of Maranhão. **METHODS:** Initially, data was collected from DATASUS - SUS Hospital Information System (SIH/SUS) of the Ministry of Health. The information analyzed corresponds to the period from January 2012 to December 2022. The data corresponding to the number of hospitalizations, deaths and mortality rates caused by chronic rheumatic heart disease were compared according to characteristics such as year, type and regime of care, age group, sex, color/race and average length of stay. **RESULTS:** During the studied period, there were 1442 hospitalizations and 75 deaths due to chronic rheumatic heart disease, with annual averages of 131.09 and 6.81, respectively. The 70-79 age group in 2021 had the highest incidence (8.6 per 100,000), while mortality was highest in those aged 80 and over in 2022 (2.5 per 100,000). In 2021-2022, 41.33% of deaths occurred. The incidence was higher among women in 2014 (3.21 per 100 thousand) and in men in 2012 (2.67 per 100 thousand). Absolute total deaths were more frequent in men (42) than in women (33), with the highest mortality rates of 0.284 and 0.247 per 100 thousand in 2022, respectively. **CONCLUSION:** Therefore, it is clear that hospitalizations for chronic rheumatic heart disease are more common in the elderly population, especially in women. However, despite the lower incidence, it is possible to identify a higher mortality rate in the male population. In this sense, it is expected that the present work will help to provide a general understanding of the panorama of hospitalizations for chronic rheumatic heart disease in Brazil and that it can serve as a basis for current literature regarding this condition.

215. **PROFILE OF ADMISSIONS AND DEATHS FROM GASTRIC AND DUODENAL ULCERS IN MARANHÃO FROM 2017 TO 2022**

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**INTRODUCTION:** Peptic ulcers are lesions that result in localized tissue loss in the affected area, with the main etiologies being *Helicobacter pylori* infection, responsible for 95% of duodenal ulcer cases and 80% of gastric ulcer cases, and the use of NSAIDs. Complications of this condition can lead to death, including: upper gastrointestinal bleeding, perforation, and pyloro-duodenal obstruction. Thus, the study aims to analyze hospitalizations and deaths due to gastric and duodenal ulcers over a period of 5 years in Maranhão. **METHODS:** Epidemiological study, quantitative and descriptive in nature, conducted utilizing data from DATASUS/TABNET, employing the SUS Hospital Morbidity indicator, with Maranhão regarded as a State Administrative Division. Gastric and duodenal ulcers were specifically chosen from the ICD-10 morbidity list, considering age group, gender, and race. Hospitalizations and fatalities occurring between the years 2017 and 2022 were included in the analysis. **RESULTS:** During the studied period, there were 3,075 hospitalizations and 241 deaths. Among these data, the peak of hospitalizations occurred in the 30 to 39 age group (n= 520), with a mortality rate of 7.20%. The highest percentage of deaths was recorded in the 70 to 79 age group, at 16.02%. Regarding gender, male hospitalizations totaled 57.79%, while female hospitalizations were 42.21%, with mortality rates of 66% and 34%, respectively. With respect to ethnicity, there were 52.84% of individuals of mixed race, however, with 32.3% of records lacking information. In fatalities, 30.7% were individuals of mixed race, with the majority (56.43%) lacking information. **CONCLUSION:** It is noted that, despite the higher number of hospitalizations occurring in the third decade of life, deaths still prevail in an older age group, indicating how other health conditions can influence prognosis. Furthermore, males appear to be the most affected by both hospitalizations and deaths, while individuals of mixed race are predominant. Therefore, accurate data accounting is essential for informing public actions so that prevention can occur in a targeted and, consequently, more efficient manner.

216. **EPIDEMIOLOGICAL PROFILE OF LEPTOSPIROSIS IN NORTHEASTERN BRAZIL BETWEEN 2018 AND 2022.**

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**INTRODUCTION:** Leptospirosis is an acute febrile illness caused by the spirochete *Leptospira interrogans*, with global relevance and significant impact on public health. The transmission occurs mainly through contact with water or soil contaminated with urine from infected animals, especially rodents, and is particularly prevalent in with precarious basic sanitation conditions. Thus, the present work aims to trace the epidemiological profile of leptospirosis in the northeastern region of Brazil among the years 2018 and 2022. **METHODS:** This is an epidemiological, cross-sectional study, descriptive and quantitative based on data obtained from the Diseases Information System of Notification (SINAN), available at the Department of Informatics of the Unified System of Health (DATASUS). Using the data tabulator (TABNET) to select and analyze the information. **RESULTS:** During the period analyzed, there were 2667 notifications of leptospirosis in the Northeast region. In 2020, the lowest number of cases was recorded (10.7%, n=288) and, in 2022, the highest quantity (36.2%, n=968). The most affected population was from the males with 2141 occurrences (80.27%), with the age group being 20 to 39 years older prevalent. Regarding the level of education, there was a predominance of individuals with the 5th to 8th grade incomplete of elementary school, with 272 cases of the disease. In relation to Regarding the distribution by race/color, the brown (67.8%) and black (7.7%) populations are the most affected. In addition, there was a higher incidence of the disease in the urban area with 1246 cases, while in the rural area there were only 225 notifications. With regard to the evolution of the pathology, about 73.9% (1973 cases) progressed to cure, while the death rate by notification rate in the analyzed period was 13.8% (370 cases). It was found that the state of Pernambuco had the highest number of confirmed cases of leptospirosis (45.8%), while Piauí had the lowest number (1.6%). **CONCLUSION:** It is inferred, therefore, that Leptospirosis is correlated with socioeconomic variables. In this way, it was observed that the disease in the Northeast occurred mostly in the State of Pernambuco, in the age group from 20 to 39 years, in the brown population and in the male sex, who live in areas of vulnerable to pathogen circulation. In this way, by recognizing the most important groups and regions susceptible, it is feasible to guide prevention, diagnosis and treatment interventions, with in order to contain the spread of this disease.



217. **EPIDEMIOLOGICAL PROFILE OF EMERGENCY ADMISSIONS FOR EPILEPSY IN MARANHÃO FROM 2018 TO 2023**

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**INTRODUCTION:** In ancient times, epilepsy was related to spiritual possessions and mysticism, promoting false beliefs about the pathology in question, as well as compromising its treatment. Due to sociocultural factors, it is clear that such myths about epilepsy persist to this day. However, it is clear that this disease has a neurological origin and a genetic or acquired etiology and can manifest itself in different ways. This pathology can be prevented and controlled in up to 70% of patients. Severe cases due to epilepsy are still present in hospital emergencies, and the lack of rapid and adequate intervention can cause serious harm to the patient's health.

**METHODS:** This is an epidemiological, descriptive, and quantitative study referring to the epidemiological profile of emergency hospitalizations for epilepsy in Maranhão from 2018 to 2023. The data used in this research is in the public domain, available on the DATASUS (IT Department of the Brazilian Health System). The variables analyzed were gender, age group, average hospital stay (in days), expenditure on care, and deaths. **RESULTS:** Between 2018 and 2023, 6,097 emergency hospitalizations occurred in Maranhão due to epilepsy, a number that represents 2.29% of cases reported across the country. The epidemiological profile of the patients consists of a majority of males (56.53%), aged between 1 and 4 years (17.48%), who, on average, remained hospitalized for around 4.8 days. It is worth mentioning that, in children under one year of age, the average hospital stay was almost double - 8.4 days -, which had a direct impact on the increase in the cost of hospitalizations, which exceeded the average expenditure by 22% annual amount of around 410,849.94 reais. As for the prognosis, in general, 1.82% of these patients die, and the most affected age group is the elderly between 60 and 69 years old (5.14%). **CONCLUSION:** There is a prevalence of males in emergency admissions, with a peak incidence in the children's age group, which is the one that requires the most hospitalization time. The role of primary and secondary care in referring cases to specialized services is essential. Furthermore, the high mortality rate among the elderly (which is three times higher than the average) calls for strict management and monitoring of this age group to avoid emergency crises and complications.

218. **EPIDEMIOLOGICAL PROFILE OF COINFECTION VISCERAL LEISHMANIASIS AND HIV IN MARANHÃO FROM 2018 TO 2022.**

João Eudes Pereira Filho<sup>1</sup>, Isabella Teixeira Lopes<sup>1</sup>, Mariana Mendonça Claudino<sup>1</sup>, Mayara Bottentuit Nogueira<sup>1</sup>, Layna Louise Cardoso Gonçalves Travassos<sup>1</sup>

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**INTRODUCTION:** Visceral leishmaniasis (VL) is a neglected tropical protozoan infection whose clinical disseminated infection includes prominent splenomegaly, hepatomegaly, anemia, thrombocytopenia, neutropenia, and hypoalbuminemia. In endemic areas, up to 30% of the population usually presents the oligo or asymptomatic form of the infection. However, the persistence of viable parasites makes it possible for them to reactivate in the face of immunosuppression, such as malnutrition or HIV infection. In this sense, VL emerged as a prevalent opportunistic infection in the acquired immunodeficiency syndrome (AIDS) epidemic. VL-HIV co-infection is a condition of high morbidity and mortality since VL amplifies HIV immunosuppression, accelerating the progression of the disease, and this tends to predispose atypical manifestations of leishmaniasis, defining AIDS.

**METHODS:** This is a descriptive study referring to the epidemiological profile of cases of co-infection Visceral Leishmaniasis (VL) and HIV in Maranhão from 2018 to 2022. The collected data is from the Information System Information on Notifiable Diseases (SINAN), available through the Department of Informatics of the Unified Health System platform (DATASUS). The variables analyzed were sex, age group, evolution, and type of admission. **RESULTS:** Between 2018 and 2022, 357 cases of VL-HIV co-infection occurred in Maranhão (a number that represents 97.5% of cases reported throughout the country), with 2022 being the year with the most reported cases (92 in total). The epidemiological profile of patients consists of a male (82.3%), aged between 20 and 59 years old (89.9%) and in primary infection (70.8%). As for the prognosis, approximately 10% of patients with LV-HIV co-infection died, while 80.9% survived the leishmaniasis infection. **CONCLUSION:** Therefore, those numbers attest to the importance of Maranhão in the national epidemiological scenario of VL-HIV co-infection, since most cases occur in this state. Furthermore, there is a growing number of reported cases, which can be worrying for the state's health system, given that this disease, despite having a substantial cure rate, also has a considerable fatality rate.

219. **MORTALITY PROFILE DUE TO CONDUCTION DISORDERS AND CARDIAC ARRHYTHMIAS IN MARANHÃO.**

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**INTRODUCTION:** Cardiovascular diseases are one of the most prevalent pathologies throughout the world and, in Brazil, represent the main cause of death. Conduction disorders and cardiac arrhythmias (TCACs) are one of them, which represent changes in the cardiac conduction system and affect the formation and/or conduction of electrical impulses. They have great clinical variability, as their carriers can be asymptomatic or have a major impact on quality of life. Due to this variation, knowledge about the mortality profile associated with TCACs is important in order to identify and act on the most vulnerable groups and reduce morbidity and mortality. **METHODS:** Epidemiological study of the mortality rate due to conduction disorders and cardiac arrhythmias in Maranhão from 2018 to 2022. The data listed were stratified into: gender, race/color, age group and type of service. For the research, the Ministry of Health's online platform was used through the SUS Hospital Information System (SIH/SUS). **RESULTS:** The mortality rate from TCACs in Maranhão between 2018 and 2022 was 11.91 deaths/Hospital Admission Authorization (AIH) – focusing on 2021 (15.2 deaths/AIH). In relation to gender, males (12.77 deaths/AIH) stand out in relation to females (10.94 deaths/AIH). In relation to race/color, white women stood out (11.96 deaths/AIH), followed by black women (11.11 deaths/AIH) and brown women (10.86 deaths/AIH). In the age group, emphasis was placed on young people aged 15 to 19 years (15.79 deaths/AIH) - with the second highest value between ages in 2021 (38.46 deaths/AIH) -, and 20 to 29 years old (14 .29 deaths/AIH), but there is also emphasis on children under 1 year of age (13.33 deaths/AIH) – the highest value between ages in the period in 2021: 40 deaths/AIH -, and for those aged 70 to 79 years (13 .29 deaths/AIH). In type of service, emergency care predominated (310 deaths) compared to 41 deaths in elective care. **CONCLUSION:** Males, of white race/color, aged 15 to 19 and receiving emergency care represent the predominance of TCAC deaths from 2018 to 2022. The year 2021 stands out, with the highest mortality rate in the period of analysis and the 2nd highest among ages. The emphasis on white and young people may indicate underreporting and difficulties in accessing healthcare for disadvantaged social groups. Therefore, this situation reinforces the need for prevention and health promotion actions in the search for improving the morbidity and mortality situation related to TCACs.

220. **EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS IN VULNERABLE POPULATION IN MARANHÃO FROM 2018 TO 2022**

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**INTRODUCTION:** Tuberculosis (TB) is a pathology whose etiological agent is *Mycobacterium tuberculosis*, also known as Koch's bacillus. It is endemic in Maranhão and is directly related to the region's precarious socioeconomic conditions, with significant prevalence in certain communities, such as homeless population (HP), people deprived of liberty (PDL), HIV-positive people and diabetics. Therefore, this work aimed to analyze the epidemiological profile of tuberculosis cases in vulnerable populations in the State of Maranhão between the years 2018 to 2022. **METHODS:** This is a descriptive epidemiological study, with a quantitative approach, using data provided by the Notifiable Diseases Information System, on the platform of the Department of Informatics of the Unified Health System (DATASUS), from 2018 to 2022. The groups studied were: HP, PDL, HIV-positive and diabetics, relating them to the variables: age group, sex, education, form of tuberculosis, type of entry and closure situation. **RESULTS:** 14,049 cases of TB were registered in Maranhão, with 383 are HP, 1,068 are PDL, 1,170 are HIV-positive and 1,554 are diabetic. In the PDL, HP and HIV-positive groups, individuals aged 20 to 39 years old, male, with incomplete primary education prevailed. The profile was repeated in the diabetic category, except for the age group, in which people aged 40 to 59 predominated, the age that diabetes diagnoses increased. The most important form of tuberculosis was pulmonary with 3,863 cases, followed by peripheral tuberculous lymphadenitis and pleural tuberculosis, with 115 and 67 records, respectively. In the variable "types of entry", it was found that the majority are new cases; however, among the groups, HP have the highest rate of re-entry after treatment abandonment. Corroborating with these data, in the "closure situation" category, the highest rates of deaths and treatment abandonment stand out (8.3% and 37%, respectively) in HP, in contrast to the others, which have high rates of cure. **CONCLUSION:** Maranhão is a State with a significant prevalence of TB cases in the vulnerable populations described, with similarities and differences in relation to the people profile and results found. Therefore, each of them has particularities that require specific public policies to combat the disease.

221. **EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR ASTHMA IN MARANHÃO IN THE LAST DECADE**

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**INTRODUCTION:** Asthma is the protagonist among respiratory public health problems, with a prevalence of more than 23% in the Brazilian population. It is one of the most recurrent diseases of this group in Brazil, therefore, the present study seeks to evaluate the epidemiological pattern of hospitalizations for asthma in the Health Macroregions of Maranhão in the last 10 years and its implications.

**METHODS:** This is an epidemiological, cross-sectional, retrospective, descriptive study, with quantitative presentation, with data collection from the Department of Informatics of the Sistema Único de Saúde (DATASUS), between January 2013 and July 2023, on hospitalizations for asthma occurring in the Health Macroregions of Maranhão.

**RESULTS:** In the last 10 years, Brazil recorded 955,098 hospitalizations for asthma. Of this total, 6.98% (66,702) occurred only in Maranhão, distributed among the Health Macroregions: North, East and South, with the North standing out with 49.7% of cases. The highest record was in 2013, 16.2% of hospitalizations, the period from 2013 until 2019 showed a slight reduction, on the other hand, from 2020 until 2021, there was an abrupt drop of more than 1,000 cases. So, 131 died, 63.3% women and 36.6% men, affecting female and male audiences with 60+ aged people, with 48.8% and 35.9%, respectively, with equal frequency, 6.1%, in both sexes from 20 to 59 years old. Regarding the days in hospital, women spent 96,896 days, while men spent 81,023. Furthermore, 12.6% of the demands were elective and 87.3% were urgent, with the majority, 55.5%, being brown skinned people and the minority, indigenous, with 0.37%. All of this generated a cost of R\$32,855,680.38 to the health system. **CONCLUSION:** Considering these data, it is clear that women were the most affected, especially elderly women, even requiring longer hospitalization than men. Furthermore, there was a significant change in the quantitative pattern of hospitalization before and during COVID-19 pandemic. This sudden drop may be a reflection of the pandemic itself, which resulted in underreporting of several diseases in the period mentioned, but it calls for studies that better quantify this phenomenon. In the following years, there was a tendency towards normality in annual variations related to the period before the pandemic. Therefore, it is clear that asthma is still a public health problem in the state, which affects the quality of life of patients, which can lead to death and generates significant costs for the state.

222. **EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO BRONCHIECTASIS EXACERBATION IN MARANHÃO**

Ingrid Raquel de Sousa Silva<sup>1</sup>, Jely Caroline de Amorim Coutinho<sup>1</sup>, Francilio Gomes da Silva Junior<sup>1</sup>, Maria Clara Santos Araujo<sup>1</sup>, Marlane Lisboa Soares<sup>1</sup>, Ana Carolina Leal Melo<sup>1</sup>, Byanka Teles Menezes<sup>2</sup>

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**INTRODUCTION:** Anatomical and functional alterations in the respiratory system can have negative repercussions on health. In this context, bronchiectasis is related to irreversible bronchial dilation, observed in high-resolution chest tomography, typically linked to chronic airway infection and inflammation. Thus, this study aims to analyze the epidemiological profile of hospitalizations due to bronchiectasis exacerbation in Maranhão. **METHODS:** This is a descriptive and quantitative study, based on data from the Department of Health Informatics of the Unified Health System (DATASUS). The analyzed period was from January 2013 to December 2022, and the variables used were age group, gender, race, hospitalizations, nature of care, and costs. **RESULTS:** During this period, (n=307) cases of hospitalizations due to bronchiectasis exacerbation were confirmed. In the distribution by age group, a prevalence was noted in the 40 to 49 age group, with 11.72% of cases. Following this, the age groups of 1 to 4 years, 60 to 69 years, and 70 to 79 years also showed significant incidences, with 11.07%, 11.07%, and 10.74% of cases, respectively. Additionally, the average length of hospital stay was 2.72 days for children, 8.31 days in the adult population, and 8.78 days in the elderly population. Regarding gender, the female population predominated, representing 60% of hospitalizations. This was also evidenced in duration, where women occupied 60.31% of the hospitalization time. Regarding self-declared race, the data shows that unidentified individuals (n=140 cases) led, followed by mixed-race individuals (n=135 cases), while the white population represented only (n=19) cases. These variables indicate a significant disparity between mixed-race and white categories, although there is a considerable amount of undeclared cases. Moreover, out of (n=307) hospitalizations, (n=84) were considered elective and (n=224) were urgent, resulting in a total cost of R\$246,766.78 for the state. **CONCLUSION:** In summary, the results highlight the significant occurrence of bronchiectasis in Maranhão, mainly in middle-aged adults, with a predominance among women. Furthermore, the disparity in racial identification of cases, with a higher incidence among mixed-race individuals and a significant number of unidentified cases, underscores the need for greater attention to respiratory health and precise data collection to effectively address this issue in the region.

**223. EPIDEMIOLOGICAL PROFILE OF ADMISSIONS FOR ACUTE MYOCARDIAL INFARCTION IN SÃO LUÍS-MA**

Ielly Caroline de Amorim Coutinho<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Carlos Vinícius Vale de Andrade Costa<sup>1</sup>, Inggyrd Eduarda Possidônio de Souza<sup>1</sup>, Mônica Cavalcante Santana<sup>1</sup>, Matheus Santos Rocha<sup>1</sup>  
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**INTRODUCTION:** Acute Myocardial Infarction (Acute MI) is one of the most common diseases in the world. In Brazil, it is estimated that between 300 and 400 thousand cases occur annually, according to data from the Ministry of Health in Brazil, thus representing a challenge for public health. The research aimed to describe the epidemiological profile of Acute Myocardial Infarction in the city of São Luís, Maranhão, Brazil. **METHODS:** This is an epidemiological, cross-sectional, retrospective and descriptive study, with quantitative presentation and data collected from the Information Technology Department of the Public Health Care System (DATASUS), between the years of 2018 and 2022. **RESULTS:** In the city of São Luís, 2960 cases of Acute Myocardial Infarction were confirmed between 2018 and 2022, with 2022 and 2020 being the years with the highest and lowest number of cases, 743 and 464, respectively. The main age group in Acute MI hospitalizations were adults aged from 60 to 69 (994 cases, representing 31,5% of total). Regarding gender, there was a great predominance considering male hospitalizations (2004) in comparison to female ones (996). Furthermore, considering the 2970 hospitalizations analyzed, only 1219 had also race as data, with the highest hospitalization rate being of people that identify as mixed race (1106), and the second highest being of people who identify as white (92). **CONCLUSION:** The cases of Acute Myocardial Infarction were prevalent in individuals with ages between 60 and 69 years old, male and mixed race. Records also showed that between 2020 and 2022 there happened an increase in the number of hospitalizations of Acute MI, which may be linked to a throwback in prophylactic measures and a failure to diagnose the disease in early stages. Despite the mentioned increase, the reduction in hospitalizations between 2019 and 2020 may be related to the COVID-19 pandemic, which may have caused a divergence between data and reality. However, additional studies are needed to understand this possible relationship.

**224. EPIDEMIOLOGICAL PROFILE OF EXOGENOUS POISONING IN MARANHÃO FROM 2018 TO 2022**

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**INTRODUCTION:** Exogenous poisonings are important causes of mortality from external agents and frequently appear in emergency departments. However, preventive measures can prevent these conditions from occurring. For prevention to be viable, it is important to know the profile of these occurrences, in order to define priority audiences and crucial prevention measures. In this sense, the objective of this study was to characterize the epidemiological profile of exogenous poisonings in the state of Maranhão. **METHODS:** This is a descriptive and quantitative epidemiological study, with data on the age group, toxic agent and circumstances of exogenous poisonings in the state of Maranhão from 2018 to 2022, obtained from the "Sistema de Informação de Agravos de Notificação (SINAN)", accessed through the "Departamento de Informática do Sistema Único de Saúde (DATASUS)" system. **RESULTS:** During the study period there were a total of 5,280 reports of exogenous intoxication, 1,850 involving suicide attempts, 1,054 accidental and 550 due to substance abuse. Of the total notifications, 2,423 had medicines as the toxic agent, 846 were caused by food and drink, 485 did not have the toxic agent registered and 270 were caused by household products. The most affected age groups were 20-39 years of age, followed by the 40-59, 15-19 and 1-4 years of age ranges. Poisoning in the event of a suicide attempt was more prevalent among those aged 20-39 years and the most common toxicants in these situations were medications. Medications were also the cause of 33.11% of accidents. Poisoning from household products was responsible for around 45.18% of cases in children aged 1-4 years. **CONCLUSION:** Suicide attempts were the biggest cause of poisoning in adults in Maranhão, with a large use of medication for this purpose. This finding indicates the relevance of promoting mental health among young people and adults, while corroborating the importance of medical knowledge about specific antidotes to medications. The results among children reinforce the importance of keeping medicines and cleaning products out of the reach of children, a recommendation that should be communicated to parents and guardians.

**225. EPIDEMIOLOGICAL PROFILE OF ARBOVIRUSES IN SOUTHEAST MARANHÃO BETWEEN 2018 AND 2022**

Myrelle Salgueiro Porto de Sá<sup>1</sup>, Luanna Stefanny Campos do Nascimento<sup>1</sup>, Mariana Clara Borges da Silva<sup>1</sup>, Antônia Márcia Dutra Rabelo<sup>1</sup>, João Henrique de Oliveira Xavier<sup>1</sup>, Letícia de Almeida Moraes Weber<sup>1</sup>, Bruna Knanda Queiroz Macedo<sup>2</sup>.

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**INTRODUCTION:** The arboviruses transmitted by *Aedes aegypti*, popularly known as dengue mosquito, are a public health problem worldwide, being endemic in the Metropolitan Region of Southwest Maranhense (RMSM), made up for 22 counties. This research aims to analyze the epidemiological profile of this region. **METHODS:** descriptive epidemiological study, based on secondary data from Sistema de Informação e Agravos de Notificação (SINAN), available on Department of Informatics of the Unified Health System, about dengue virus cases (DENV), Chikungunya (CHIKV) and Zika (ZIKV), notified by population from RMSM between 2018 and 2022. The parameters were temporal and spatial analysis, age range, sex and clinical evolution which were tabulated in Excel 2019. Since they are secondary data, the Ethics Committee was dismissed. **RESULTS:** Between 2018 and 2022, 1.366 arboviruses cases were notified in RMSM. Nevertheless, data is missing in some places and periods. The registers of DENV number 633 cases from 2018 to 2020, 68% of these in 2019, being 88% in the first semester, emphasizing april and may. The most affected counties were Imperatriz (24%), Governador Edison Lobão (18%) and Amarante do Maranhão (11%). Women between 20 and 39 years old were the most injured, as well in CHIKV. Children up to 14 years old are 33% of cases. Only one death was reported. Regarding ZIKV, there are 105 registered cases in 2018-22, 59% of them were in 2022. The most affected counties were Imperatriz (54%), Açailândia (17%) and São João do Paraíso (16%). Women represent 56% of cases, while 63% affected people < 15 years old, notably < 5 years olds (27%). The clinical evolution of healing occurred in 88% of sufferers. Between 2019 and 2020 there has been a drop of 76% (143 to 33 cases) and an increase in 2022, with 274 cases, representing a booming. May and June (39%) were featured. The more affected cities were Açailândia (32%), Imperatriz (27%) and Cidelândia (12%). 91% of cases got cured. **CONCLUSION:** There is an important and current contamination by arboviruses in RMSM. Covid-19 pandemic may have worsened the underreporting situation about arboviruses causing a large neglect over their prevention. Furthermore, the limitations in data collection in SINAN stop accurate identification about populations that are in danger. In short, the public politics for arboviruses are ineffective, being necessary to improve epidemiological surveillance, since the prevalence of arboviruses in that region.

**226. EPIDEMIOLOGICAL PROFILE OF HIV/AIDS AMONG ELDERLY PEOPLE IN BRAZIL**

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<sup>2</sup> Universidade Federal do Maranhão

**INTRODUCTION:** Acquired immunodeficiency syndrome (AIDS), caused by HIV infection, is still an important subject of debate, even more than 30 years after its discovery. Among the issues debated are the damage caused to the population, such as social isolation, side effects of medication and, in some cases, death. There is currently an increase in HIV/AIDS infections among people aged 60 and over. The aim of this study is to analyze the evolution of the HIV/AIDS epidemiological profile among elderly people in Brazil. **METHODS:** This is a descriptive and quantitative study, whose secondary data was collected from the Notifiable Diseases Information System (SINAN/SUS), made available by the Department of Informatics of the Unified Health System (DATASUS), and from the HIV/AIDS Epidemiological Bulletin between 2012 and 2022. The ethnicity, gender and schooling of the elderly patients were then analyzed. **RESULTS:** In the period observed, 11,618 new AIDS cases were reported in people aged 60 and over. Together, the triennium 2017-2019 and 2021 represent more than 43% of new cases. Approximately 63% of the cases were among men, who were the most affected in all the years of the study. The white population was the most affected with 3,069 new cases, followed by brown (20.2%), black (5.4%), yellow (0.2%) and indigenous (1.9%). The most common level of schooling was incomplete 1st to 4th grade (22.5%), followed by incomplete 5th to 8th grade, with 817 cases, and complete high school, with 12% of the total. **CONCLUSION:** The increase in life expectancy in the country is linked to the emergence of age-related diseases. However, the results show that there is a growing number of new HIV/AIDS cases reported among the elderly. These results show the need for public policies to prevent STIs in this age group. In addition, it is notable that the lack of sex education is proportional to schooling, especially among people who have not completed elementary school, but even those who have information about the pathology are at risk due to beliefs in the low severity of the disease.

227. **EPIDEMIOLOGICAL PROFILE OF LEPROSY HOSPITALIZATIONS IN THE STATE OF MARANHÃO FROM 2014 TO 2023**

Guilherme Luís Moura Sousa<sup>1</sup>, Bruna Assunção Albuquerque Nascimento<sup>1</sup>, Cecília Maria Camelo da Silveira<sup>1</sup>, Isadora Nogueira Pinheiro Castelo Branco<sup>1</sup>, Marília Beatriz Lima Mineiro<sup>1</sup>, Robert Kennedy Soares de Carvalho<sup>1</sup>, Ana Carla Marques da Costa<sup>2</sup>.

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**INTRODUCTION:** Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*, which is characterized by involvement of the skin and peripheral nerves. Its therapeutic regimen depends on the operational classification: Paucibacillary or Multibacillary; and its clinical presentation varies between: Indeterminate, Tuberculoid, Virchowian, Dimorphic. Brazil ranks second in the world for the number of cases and Maranhão is responsible for the highest prevalence among the Northeastern states. The aim of this study is therefore to outline the epidemiological profile of leprosy hospitalizations in the state of Maranhão from June 2014 to June 2023. **METHODS:** This is a cross-sectional, descriptive and quantitative study using data available on the website of the Department of Informatics of the Unified Health System (DATASUS), recorded in the SUS Hospitalization System (SIH/SUS). The study population includes all people who were hospitalized for leprosy in Maranhão between June 1, 2014 and June 30, 2023. The variables selected for this study were: year of hospitalization, health macro-region, age group, race/color and gender. The data was tabulated in the Microsoft Excel program, with descriptive statistical analysis. **RESULTS:** Maranhão recorded 4,180 hospitalizations in the period from June 2014 to June 2023, which corresponds to 40 of the 10,468 hospitalizations reported in the entire Northeast in this period. The years 2020 and 2022 had the highest numbers, with 643 and 645 hospitalizations respectively. The Northern Health Macroregion accounted for most of the hospitalizations, responsible for 86% (n=3610) of the cases registered, while the East and South accounted for 8% (n=345) and 5% (n=225), respectively. Regarding the profile of the inpatients, 19% (n=810) were aged between 30 and 39 and 72% (n=3019) were male. The data on color/race proved to be insufficient, given that in 76% (n=3163) of the cases, the variable was not determined. **CONCLUSION:** The number of hospitalizations in recent years confirms the need to promote early diagnosis and treatment. The prominence of MRS Norte in the number of hospitalizations indicates the vulnerability of this section of the population. Due to the scarcity of some information, such as education or income profiles, it is important to carry out more studies on this subject.

228. **EPIDEMIOLOGICAL PROFILE OF VISCERAL LEISHMANIASIS IN MARANHÃO OVER A DECADE**

Francisco Marques da Silva Neto<sup>1</sup>, André Cardoso Montenegro<sup>1</sup>, Byanca Taumaturgo Bezerra de Menezes<sup>1</sup>, Cecília Maria Camelo da Silveira<sup>1</sup>, Guilherme Luís Moura Sousa<sup>1</sup>, Raimundo José Ferreira de Macedo<sup>1</sup>, Rommayolle Costa Diniz de Sousa<sup>1</sup>

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**INTRODUCTION:** Visceral Leishmaniasis (VL) is an infectious zoonotic disease characteristic of tropical climate countries. Its etiology is given by protozoa of the genus *Leishmania*, which are transmitted by sandflies. VL is a public health problem, justifying the need for studies on its epidemiology. The purpose of this research is to examine and analyze the epidemiological evolution of visceral leishmaniasis in Maranhão over a decade. **METHODS:** This is a retrospective quantitative ecological study of time series, analyzing data provided by the Disease and Notification Aggravations System (SIVAN) regarding VL cases between 2013 and 2022 in the state of Maranhão. The variables analyzed include gender, Coinfection with Human Immunodeficiency Virus (HIV), area of residence, race, outcome, education level, and age group. **RESULTS:** In the analyzed period, 5,610 cases of VL were reported in the state of Maranhão, with the year 2017 showing the highest number, 793 cases. Furthermore, from 2019 to 2022, there was a downward trend. 74% (n=4176) of notifications did not present coinfection with HIV. Regarding the predominant profile, males accounted for 66% (n=3708), the most affected age group was 1 to 4 years, with 30% (n=1658), and brown ethnicity represented 77% (n=4328) of confirmed cases. Regarding education information, 47% were classified as "not applicable," and among those reported, the most prevalent were incomplete elementary education (1st to 4th grade) and incomplete middle school (5th to 8th grade), both with 11%. Regarding the area of residence, 56% (n=3156) were urban residents. Moreover, the majority of notified patients in the state recovered, accounting for 64% (n=3586) of cases. **CONCLUSION:** The study shows an increase in cases between 2016 and 2018, followed by a reduction between 2019 and 2022. There is a greater predominance in males, brown individuals, and urban residents. Higher levels of education indicate a trend towards reducing VL cases, as incomplete and complete higher education designate 0%. In terms of outcome, cure represents superiority over deaths from VL. Based on these results, there is a need for further implementation of prevention and control measures correlated with socioeconomic and environmental factors.

**229. EPIDEMIOLOGICAL PROFILE OF COLORECTAL CANCER DEATHS IN MARANHÃO: PERIOD FROM 2017 TO 2021**Jaciele Santos da Silva Sousa<sup>1</sup>, Fabricia Cristina da Cruz Sousa<sup>1</sup>, Alynne Bayma dos Santos<sup>1</sup><sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Colorectal cancer is a malignant neoplasm of the large intestine that originates from benign polyps found in the colon and/or rectum walls. The disease is influenced by genetic, hereditary, and lifestyle factors and can develop silently, taking approximately 10 to 15 years from the onset of the lesion to the establishment of the tumor, with a delay in the appearance of symptoms. In Brazil, colorectal cancer is the third most common, excluding non-melanoma skin tumors. Therefore, this article aims to analyze the death profile of patients from this neoplasm in Maranhão, with the objective of understanding this pathology in the state and the need for prevention. **METHODS:** This is a cross-sectional and descriptive epidemiological study. The collected data were obtained from the Mortality Information System (SIM), available at the Department of Health Informatics (DATASUS) of the Ministry of Health, regarding mortality from colorectal malignant neoplasms. The temporal cutoff considered was from January 2017 to December 2021, including the following variables: gender, age group, race/ethnicity, education, municipality, and staging. **RESULTS:** A total of 1,013 deaths were recorded between the years 2017 and 2021, with 526 female and 487 male. The municipality with the highest number of deaths was São Luís, with 315 during the study period, followed by Imperatriz, with 95. The predominant age group was individuals aged between 60 and 69 years (260 deaths), although there was a considerable incidence in individuals under 50 years, accounting for 7.79% of deaths. Regarding race/ethnicity, there was a prevalence of pardos (60.21%), followed by whites at 29.22%. In terms of education, 22.11% had 8 to 11 years of schooling, and approximately 18.85% had no formal education. Additionally, using the TNM staging system, a predominance of stage III and IV was observed, totaling 42.04%. **CONCLUSION:** The results of this research indicate age as an important risk factor for the onset of colorectal cancer. The main epidemiological death profile in Maranhão for this neoplasm is among women. From the staging data, it was evident that there is a tendency for late discovery of the disease in Maranhão. This emphasizes the need for additional studies on this pathology and health education in the state, focusing on early detection through screening and the reduction of morbidity and mortality.

**230. EPIDEMIOLOGICAL PROFILE OF DEATHS FROM DIABETES MELLITUS IN PINHEIRO, MARANHÃO, 2018 TO 2021**André Aquim Salgado Prazeres Picanço<sup>1</sup>, Fernando Alberto Costa Cardoso da Silva Filho<sup>1</sup>, Caio de Brito Matos<sup>1</sup>, Stephanie Freire Soares de Farias<sup>1</sup>, Brunna Araújo dos Santos<sup>1</sup>, Pedro Henrique Delfim Pessoa<sup>1</sup><sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Diabetes mellitus is one of the most prevalent diseases today, with an estimated 10.5% of the world's adult population (20-79 years old) living with the diagnosis, with half of this percentage unaware of having the disease, with this sample demonstrating be growing. Regardless of classification as type 1 or 2, the final result when poorly controlled is the same: hyperglycemia, which can cause numerous micro and macrovascular complications, acting as a comorbidity for several illnesses and leading to hospital admissions, resulting in increased spending for the public system. Given this, we seek to draw an epidemiological profile of direct deaths from the disease in search of elucidation and better planning. **METHODS:** This is a cross-sectional and analytical study. The research was carried out using data collected from the SUS IT System (DATASUS), in which deaths caused by Diabetes Mellitus in the municipality of Pinheiro, Maranhão, between the years 2018 and 2021 were selected, with the variables observed: sex, race/color and age group. **RESULTS:** Within the period analyzed, 197 deaths were registered under ICD-BR-10: 055 — referring to Diabetes — in the municipality in question. Just over half of these deaths were male (54.3%). As for race, self-declared browns represent 71.51% of these deaths, followed by blacks and whites with 15.22% and 13.19% respectively. In reference to the age group, from 10 to 79 years old we have an increasing number of values, with a peak in the range of 70 to 79 years old, with 30.45% of total cases, showing a small drop in the last group, 80 years old or more, which reaches 29.44% of the total. **CONCLUSION:** In short, among the variables: sex, race/color and age group, it was concluded that: men, self-declared mixed race and people between 70 and 79 obtained the highest values of the totality studied. Furthermore, analyzing deaths in a given municipality, such as the case of Pinheiro, is especially important for the ideal performance of the Brazilian health system, as it allows the elaboration of more coherent public policies, which are therefore more efficient in general.

231. **EPIDEMIOLOGY OF REDUNDANT PREPUCE, PHIMOSIS AND PARAPHIMOSIS IN MARANHÃO BETWEEN 2018 AND 2023**

Myrelle Salgueiro Porto de Sá<sup>1</sup>, Mariana Clara Borges da Silva<sup>1</sup>, Luanna Stefanny Campos do Nascimento<sup>1</sup>, Antônia Márcia Dutra Rabelo<sup>1</sup>, João Henrique de Oliveira Xavier<sup>1</sup>, Ana Clara Tavares Dantas Nogueira<sup>1</sup>, Samara de Oliveira Sá<sup>2</sup>.

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**INTRODUCTION:** The redundant prepuce, phimosis and paraphimosis (PRFP) are conditions that affect genital hygiene, with relevance over public health, specially in Maranhão, where penis cancer is prevalent. Redundant prepuce involves excessive skin on the glans; phimosis is the difficulty over retract prepuce; and paraphimosis is an emergency which requires immediate attention due to glans blood flow restriction. This study aims to analyze the PRFP epidemiology in Maranhão between 2018 and august 2023. **METHODS:** descriptive epidemiological study, based on secondary data from Departamento de Informática do Sistema Único de Saúde – DATASUS, in the hospital morbidity ward, over cases of hospitalizations by PRFP. The parameters were temporal and spatial analysis, age range, sex and clinical evolution which were tabulated in Excel 2019. For there were not studies in human beings, the Ethics Committee was dismissed. **RESULTS:** in the gap between 2018 and august 2023, there were 7.920 hospitalizations by PRFP in 19 regions of health in Maranhão. in 2020, the Covid-19 pandemic period, had a drop (30%) of hospitalizations. However, in the next years, the number increased, for example, in the first eight months of 2023 represented 14% of the total, with 1.140 hospitalizations, a jump. Among all maranhense health regions more affected by PRFP are São Luís (19%), Codó (9,4%), Imperatriz (9%) e Santa Inês (6%) with the highest number of hospitalizations. it means in the capital São Luis there is a range of male hospitalizations PRFP/inhabitant of 0,2%, followed by Imperatriz (0,5%), Santa Inês (1%) and Codó (1,26%). Regarding age range, 22% of people affected are children between 5 and 9 years old and 47% are men above 15 years old. Regarding race, 50% are brown and 42% did not inform this feature. The character of the service was considered "elective" 45% of times and 55% as "urgent". In the period studied, there were 7 deaths, in São Luís, Santa Inês, Codó and Caxias health regions. **CONCLUSION:** some small cities as Codó and Santa Inês, have high hospitalizations range by PRFP, demanding targeting specific healthy strategies. Furthermore, the Covid-19 pandemic may have promoted the underreporting and nonadherence to treatment. in short, the public politcs to early detection, prevention and treatment to PRFP in Maranhão are ineffective and require improvement.

232. **EPIDEMIOLOGICAL PROFILE OF SYPHILIS IN PREGNANT WOMEN IN THE SOUTHERN REGION OF MARANHÃO FROM 2017 TO 2021**

Karoliny Araújo Santana<sup>1</sup>; Werta Maria de Oliveira Almeida<sup>1</sup>; Iangla Araújo de Melo Damasceno<sup>2</sup>

<sup>1</sup> Centro Universitário Tocantinense Presidente Antônio Carlos, student

<sup>2</sup>Centro Universitário Tocantinense Presidente Antônio Carlos, professor

**INTRODUCTION:** Syphilis is an infectious disease caused by the bacterium *Treponema pallidum*, which is transmitted sexually, vertically, or hematogenously. One of the vulnerable populations to this infection is pregnant women, where syphilis can have serious health repercussions for both the mother and the fetus. Given the impact of syphilis on public health and the increasing number of cases, this study aims to analyze the epidemiological profile of syphilis in pregnant women in the southern region of Maranhão from 2017 to 2021. **METHODOLOGY:** This is an epidemiological, cross-sectional, descriptive, and quantitative study based on data obtained from the Information System for Notifiable Diseases (SINAN), available at the Department of Informatics of the Unified Health System (DATASUS). Using the data tabulator (TABNET) to select and analyze the information. The period applied was from January 2017 to December 2021, and at the time of the research, the data were segmented into: race/color, age group, education level, clinical classification, treponemal (treponemal) and non-treponemal test. **RESULTS:** During the analyzed period, 1527 cases of syphilis in pregnant women were reported in the region, with an average of 305.4 cases diagnosed per year. It was noted that the age group with the highest incidence includes pregnant women between 20-39 years old (65.7%) and between 15-19 years old (29.9%). Regarding race/color, there was a predominance of brown women (76.9%), and regarding education, there was a higher prevalence of incomplete 5th to 8th grade education with 389 cases (25.4%). Furthermore, the prevalent clinical classification at the time of diagnosis was the primary stage of the disease with 36.4%, followed by latent syphilis with 35.1%. It was also found that between 2018 and 2019, there was a significant increase in the performance of non-treponemal and treponemal tests, with the highest value in 2019 (390 non-treponemal tests and 352 treponemal tests), with a decrease in subsequent years. **CONCLUSION:** It is inferred, therefore, that in the region, the most affected epidemiological profile of syphilis during pregnancy encompasses a population predominantly made up of brown women, aged between 20 and 29 years old, and with low levels of education. Therefore, it is necessary to direct social policies to this vulnerable group, aiming to reduce the complications of this infection in the mother-child dyad. Furthermore, there is a need for more vigorous interventions aimed at prevention, early diagnosis, and appropriate treatment of syphilis in Maranhão.



233. **EPIDEMIOLOGICAL PROFILE OF PULMONARY TUBERCULOSIS IN SMOKERS IN MARANHÃO FOR A DECADE**

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**INTRODUCTION:** Tuberculosis (TB) is an infectious disease mainly caused by *Mycobacterium tuberculosis*. Its spread occurs primarily through the inhalation of particles containing bacilli, with pulmonary symptoms characterized by cough, weight loss, and night sweats. Smoking increases the risk of TB by decreasing immune response and impairing ciliary function, thus increasing susceptibility to infection and affecting treatment adherence. Therefore, this study aims to outline the epidemiological profile of pulmonary tuberculosis in smokers in the state of Maranhão from 2013 to 2022. **METHODS:** This is a descriptive, cross-sectional, quantitative study using secondary data from the Notifiable Diseases Information System of the Unified Health System (SINAN/DATASUS). The following variables were analyzed: year, sex, age group, race, education, health region, and treatment outcome. **RESULTS:** Maranhão accounted for 10% of pulmonary tuberculosis cases among smokers in the Northeast during the study period. Among smokers in Maranhão, 15% had tuberculosis, with pulmonary TB being the most common form (95%). The number of cases among smokers increased over time, with a slight decrease in 2020 (n=454) but a subsequent rise in 2021 (n=556), reaching a peak in 2022 (n=694). Males were most affected (83%), with the highest prevalence observed in the 20-39 years age group (48%) and 40-59 years age group (36%). The most common race was mixed (72%), followed by black (17%). The most affected education level was incomplete elementary education (24%). São Luís was the health region with the highest number of cases (54%). Regarding treatment outcomes, 50% resulted in cure, 20% in treatment abandonment, and 5% in tuberculosis-related deaths. The highest increase in treatment abandonment and deaths was observed from 2020 to 2021. **CONCLUSION:** Pulmonary tuberculosis is the most common form of the disease affecting the smoking population during this decade. The most affected profile includes male smokers of mixed race, aged 20-59 years, with low levels of education. Therefore, there is a need to establish and strengthen public policies targeting the most affected population to reduce the number of cases and treatment abandonment rates.

234. **EPIDEMIOLOGICAL PROFILE OF AIDS CASES IN THE LUDOVICENSE REGION BETWEEN 2019 AND 2022**

Marla Maria de Sousa<sup>1</sup>, Marianna Sousa Costa<sup>1</sup>, Nielson Amorim Frota<sup>1</sup>, Maria Eduarda Alvim Martins Vieira<sup>1</sup>, João Batista Padilha Filho<sup>1</sup>, Damylla Garreth Alves de Sousa<sup>1</sup>, Alessa Samya Sérvulo Rodrigues<sup>1</sup>

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**INTRODUCTION:** Acquired Immunodeficiency Syndrome (AIDS) is a chronic disease caused by the human immunodeficiency virus (HIV) that primarily affects the immune system. The treatment for this condition is antiretroviral therapy (ART), provided free of charge by the Unified Health System (SUS). However, despite the availability of treatment, AIDS is considered a significant public health problem due to the high number of deaths and other biopsychosocial factors associated with it. Therefore, early detection of cases in the Ludovicense area is urgent through active case finding, as the disease has a slow and progressive course, in order to halt its progression. Thus, the project aimed to analyze the epidemiological profile of AIDS patients in the metropolitan region of São Luís, Maranhão, between 2019 and 2022. **METHODS:** Epidemiological, descriptive retrospective study, conducted by collecting data on reported AIDS cases in the municipality of São Luís from 2019 to 2022, from the database of the Notifiable Diseases Information System (SINAN), provided by the Unified Health System (DATASUS). The following were studied: number of notifications per year, gender, age group, and educational level of reported cases. **RESULTS:** 427 cases of AIDS were reported in the capital of Maranhão between 2019 and 2022, with decreasing numbers over the years, with 45 notifications in 2022. The male population accounted for 68.79% of cases, while females accounted for 31.20%. Furthermore, the most affected age group was 35 to 49 years old, accounting for 43.26%, while those under 35 years old represented 32.86%. Regarding educational level, only 8.2% had completed higher education, and about 60% of cases did not complete high school. **CONCLUSION:** Thus, it is evident that the epidemiological profile of AIDS cases in the metropolitan region of São Luís is predominantly men aged 35 to 49 years old, with the majority having incomplete high school education. Therefore, it is important to emphasize the need for preventive public health policies focused on education for this affected population, aiming to reduce the incidence and improve public health in the capital, ensuring the enhancement of disease diagnosis and control strategies.

235. **EPIDEMIOLOGICAL PROFILE OF LEPROSY CASES BETWEEN 2019 AND 2023 IN THE STATE OF MARANHÃO**

Ana Carolina Leal Melo<sup>1</sup>; Mariana Alencar Bisinotto<sup>1</sup>  
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**INTRODUCTION:** Leprosy, also known as Hansen's disease, is a chronic infectious condition caused by *Mycobacterium leprae*. This pathology exhibits various clinical forms and reactive states dependent on the host's specific immunity, characterized by alterations in thermal, painful, and tactile sensitivity, particularly in extremities, and may result in permanent disabilities. Despite being freely treatable in Brazil, leprosy is considered a high burden in the country, posing a significant public health concern. In this perspective, the objective of the present study was to analyze the epidemiological profile of leprosy in Maranhão between the years 2019 and 2023. **METHODS:** This study is an epidemiological analysis of confirmed and reported leprosy cases in the state of Maranhão from 2019 to 2023. It is characterized as retrospective, bibliographical, and comparative, conducted through the DATASUS/SINAN/TABNET platform and the Ministry of Health. **RESULTS:** A total of 13,259 cases of leprosy were reported in the state of Maranhão, with a predominance in the year 2019. Analyzing epidemiological parameters, there was a higher prevalence of the disease in males, accounting for 61.4% of cases. Regarding race, individuals self-declared as mixed race led the number of notifications with 9,073 diagnoses. In terms of education, there was statistical diversity; however, the minority of cases (368) had completed higher education, while the majority had no basic educational background, particularly without completing elementary education. In terms of age, there was a prevalence of cases in adults. Concerning clinical parameters, the multibacillary form of the disease prevailed, with 11,268 cases (85%), as well as the dimorphic pattern with 7,445 cases (56%). In the assessment of the degree of physical disability, the majority were reported with either zero (6,778) or grade I (4,118). Additionally, reactive episodes were low, and the most used therapeutic regimen in 11,132 cases (84%) was PQT/MB/12 doses. **CONCLUSION:** There was a predominance of the multibacillary form of the disease in males and individuals self-declared as mixed race. Furthermore, the influence of sociodemographic factors was evident, with individuals with low educational attainment predominating in the number of reported cases. The high frequency of leprosy cases in Maranhão highlights a public health problem and underscores the need for future interventions to enhance healthcare assistance.

236. **EPIDEMIOLOGICAL PROFILE OF ACUTE KIDNEY INJURY CASES IN MARANHÃO FROM 2017 TO 2021**

Maria Eduarda Alvim Martins Vieira Farias<sup>1</sup>, Damylla Garreth Alves de Sousa<sup>1</sup>, Marla Maria de Sousa<sup>1</sup>, Max Danilo Bezerra Policarpo Sousa<sup>1</sup>, Marianna Sousa Costa<sup>1</sup>, Nielson Amorim Frota<sup>1</sup>, João Batista Padilha Filho<sup>1</sup>  
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**INTRODUCTION:** Acute Kidney Injury (AKI) can be defined as the sudden loss of renal function, regardless of etiology or mechanisms, leading to the accumulation of nitrogenous substances (urea and creatinine), accompanied or not by decreased urine output. Thus, this study aims to analyze cases of mortality due to acute kidney injury in the state of Maranhão, Brazil, focusing on parameters such as the number of deaths by age group, sex, and race/ethnicity. **METHODS:** This is an epidemiological, observational, retrospective, and descriptive study, utilizing data collected from the DATASUS website of the Ministry of Health, through the Tabnet tool, covering the period from 2017 to 2021. **RESULTS:** During the study period, 1,035 cases were reported in the state of Maranhão, with the highest occurrence in the year 2021. The majority of cases occurred in individuals over 15 years of age, predominantly in males, and there was a significant highlight for the brown ethnic group regarding race/ethnicity. The highest coefficients were observed in the elderly age group, aged 70 years or older. Additionally, there was a growing trend for both sexes, but with a stronger emphasis on females. **CONCLUSION:** It is concluded that the analysis of the number of deaths and, consequently, the epidemiological profile of cases of acute kidney injury in the state of Maranhão, Brazil, is essential to encourage and improve disease treatment by understanding the resurgence and prevalence of the condition in the region. Thus, there can be an improvement in multidisciplinary work for the recovery of existing cases and the prevention of new cases, allowing for better direction and implementation of public policies in the described state.

**237. PROFILE OF ADMISSIONS FOR TRAUMATIC BRAIN INJURY IN MARANHÃO FROM 2018 TO 2023**

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**INTRODUCTION:** Traumatic brain injury (TBI) refers to any trauma in which the brain parenchyma or the structures underlying it are impacted. This occurs due to falls from a height, traffic accidents and external physical violence, and may also be influenced by risk factors that increase the propensity for trauma, for example, drug consumption. Furthermore, it is associated with complications that give the individual temporary or permanent limitations, resulting in a major impact on hospital expenses and the dynamics of the family involved. The objective of the work is to analyze the profile of hospitalizations for TBI in children and adolescents in Maranhão. **METHODS:** This is an epidemiological, retrospective, quantitative and descriptive study based on data made available by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospital admissions due to TBI, in Maranhão, between the period from July 2018 to July 2023, with individuals under 1 year old up to 14 years old. The correlated variables were: number of hospitalizations, year of care, sex, age group, deaths, average number of days of hospitalization. **RESULTS:** During the period studied, 2,271 hospitalizations were carried out, the majority in the North macro-region (1,281), with a predominance of the age group from 1 to 4 years old with 743 cases (33%) and around 98 hospitalizations were urgent. The year with the most hospitalizations was 2022 with 475 (20.91%), followed by 2019 with 456 (20.07%). Males were the most affected by trauma with 1,424 hospitalizations (63%). The average stay of hospitalizations was longer in individuals aged 10 to 14 years with an average of 5.5 days, followed by children aged 5 to 9 years with 4.5. Regarding deaths, 66 children died due to TBI, the majority of which were males with 39 cases (59.09%). **CONCLUSION:** Given these data, the relevance of the topic for the prevention of TBI can be observed, especially in early childhood, given the prevalence of cases, resulting in a risk of complications, such as disabilities, decreased neuropsychomotor development and death. Therefore, educational measures are necessary that includes parents and guardians, with the aim of avoiding traumas of any nature in the home environment and beyond.

**238. SYMPTOMATOLOGICAL AND SOCIODEMOGRAPHIC PROFILE OF CHILDHOOD AND YOUTH DEPRESSION IN BRAZIL TODAY**

Antônia Márcia Dutra Rabelo<sup>1</sup>, Myrelle Salgueiro Porto de Sá<sup>1</sup>, Mariana Clara Borges da Silva<sup>1</sup>, Luanna Stefanny Campos do Nascimento<sup>1</sup>, João Henrique Xavier de Oliveira<sup>1</sup>, Lara Bezerra de Matos<sup>1</sup>, Sheila Elke Araújo Nunes<sup>1</sup>

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**INTRODUCTION:** Depression is a disabling mental disorder that can affect any age group, social class and ethnicity. According to the World Health Organization (WHO), the number of cases of depression in children aged 6 to 12 has increased from 4.5 to 8% in 10 years, which demonstrates the need for attention to the diagnosis and treatment of this population. The aim of this study was to identify the main symptoms and sociodemographic profile of Brazilian children and adolescents diagnosed with depression. **METHODS:** This is an integrative review, carried out by searching the LILACS, BVS and MEDLINE databases. The following descriptors were used with Boolean operators: "childhood depression", "depression in adolescence" and "symptoms of depression", among others. The inclusion criteria were: 1) publications from 2018 to 2023; 2) in Portuguese and English; 3) population studies in children and adolescents; and, 4) carried out in Brazil. Systematic or literature reviews, dissertations and those not available in full were excluded. Initially, 25 articles were selected and the exclusion criteria applied, leaving 6 articles. **RESULTS:** In the studies analyzed, the application of assessments and scales, such as the Emotional Self-Regulation Scale (EARE), in the public aged 7 to 18 in 5 large Brazilian cities, pointed out the most common symptoms in most children: lack of concentration, hopelessness, feeling of loneliness, helplessness and poor self-regulation, especially after the COVID-19 pandemic. Regarding the profile of the children, boys aged between 7 and 12 showed greater difficulty in problem-solving, aggression and suicidal ideation, while girls showed anhedonia, a desire to cry and a change in appetite. In adolescence, gender issues stand out, as women face more adversity than men due to socialization, endocrine changes and higher stress levels. In addition, the socio-economic and family context affects the psychological state of these patients, such as the death or illness of a family member, parental unemployment, psychological or physical abuse, making them more prone to self-harm. **CONCLUSION:** Depression in children and adolescents is multifactorial and symptoms require attention from caregivers. Finally, the stigmatization of the condition, the scarcity of public health policies, guidelines and studies on the subject highlight the need for a greater approach to the subject.

239. **SOCIODEMOGRAPHIC PROFILE AND HEALTH CONDITIONS OF THE ELDERLY IN A MUNICIPALITY IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** In 2016, Brazil had the 5th largest elderly population in the world and, by 2030, this group will be larger than the total number of children aged between 0 and 14. In Maranhão, 13.2% of the population is aged 60 or over. Ageing is heterogeneous and varies according to sex, gender and ethnic-racial relations, socio-cultural and economic aspects, as well as where people live. Therefore, the aim of this study was to assess the sociodemographic profile and health conditions of the elderly in Caxias-MA who attended the Senior Living Centers (SLC). **METHODS:** This was an analytical, cross-sectional study with a quantitative and qualitative approach. The study included elderly people attending 7 SLC in the city of Caxias-MA, aged 60 or over, of both sexes, after signing an informed consent form. A questionnaire was used with socio-demographic information, health conditions and lifestyle habits. Descriptive statistics were analyzed using measures of central tendency and dispersion for continuous variables, relative and absolute frequencies for categorical variables and contingency tables with the Chi-square association test to verify the relationship of independence between qualitative variables. The study was registered on the Brazil Platform and began after approval by the Research Ethics Committee under CAAE number 51152121.0.0000.5554. **RESULTS:** In 2022, 143 elderly people were interviewed, and the majority of the sample were: women (90.9 %), mean age of 72.3±7.81 years, brown (57.3 %), elementary school (55.9 %), retired (95.8 %), widowed (43.4 %), self-rated health as regular (53.1 %), exercise regularly (53.1 %), use 1 to 2 medications a day (47.6 %) - while 11 % do not use any medication, do not smoke (88.1 %), do not consume alcohol (89.5 %), have difficulty sleeping (50.3 %) and attend religious activities (87.4 %). Analysis of the contingency tables showed a statistically significant association between alcohol consumption and gender - higher frequency in males (35.7% versus 8.9%). **CONCLUSION:** Thus, the profile of the elderly attending the SLC in the municipality of Caxias - MA is considered to be healthy, with active ageing, no addictions, no polypharmacy, but with significant difficulty in sleeping, as well as greater alcohol consumption among males.

240. **SOCIOECONOMIC PROFILE OF MEN WITH PENILE CANCER IN MARANHÃO BETWEEN 2011 AND 2021**

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**INTRODUCTION:** Penile cancer is a rare neoplasm that is considered a serious public health problem, especially in developing countries. Brazil has one of the highest incidences in the world. In Maranhão, its incidence even exceeds that of prostate cancer. The occurrence of this neoplasm is associated with smoking, phimosis, poor hygiene habits, the individual's lifestyle, sexual life with multiple partners and unprotected, and especially contamination by the human papilloma virus (HPV) and low socioeconomic conditions. **METHODS:** This is a descriptive study using data recorded in the Mortality Information System linked to the Department of Informatics of the Unified Health System (SUS) for the state of Maranhão between 2011 and 2021. **RESULTS:** There were 276 deaths from this neoplasm, with a significant decline starting in 2017, with 31 deaths, which fell to 19 in 2018. However, this percentage increased again in 2019 and remained high until 2021, with a peak of 30 deaths. As for sociodemographic characteristics, there were more deaths in the age group of 80 years or more, corresponding to 22.10% of the total, and in second place, in the 50-59 age group, representing 20.65%, which increased between 2017 and 2021. As for color/race, most men were brown, accounting for 64.13%. In terms of schooling, men with no schooling accounted for 40.21%. Marital status is still predominant, with 117 cases (42.39%), although in 2020 there was a predominance of single men (33.33%). In addition, when using the TNM staging system, it was noted that, from 2013 to 2021, most cases were in stages III to IV, corresponding to 25.30% of the total 245 cases of penile cancer recorded in that period. **CONCLUSION:** The study showed that mortality from penile cancer remained high. There was a predominance of deaths in the elderly age group, with a change and increase in mortality among men aged 50 to 59 between 2017 and 2021. About education, there was a predominance of deaths among men with no or little education. The analysis of staging in the period observed led to the conclusion that diagnosis is still predominantly late. It is therefore essential to reflect on how socioeconomic factors influence mortality from this neoplasm and the need to invest in prevention.

**241. PERFORMANCE OF THE H2FPEF SCORE FOR HFPEF DIAGNOSIS - A LITERATURE REVIEW**

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**INTRODUCTION:** Heart failure with preserved ejection fraction (HFpEF) accounts for more than half of heart failure (HF) cases but remains underdiagnosed due to the lack of precise diagnostic parameters. This condition may manifest as exertional dyspnea unexplained by other cardiac or pulmonary conditions. The gold standard method is right heart catheterization under stress, an invasive, costly, and technically complex examination. Hence, scoring systems have been developed to estimate the probability of HFpEF, allowing for a more practical and secure diagnosis or exclusion of this condition. The aim of this study was to evaluate the performance of the H2FPEF score. **METHODS:** Systematic literature review of the H2FPEF score performance for diagnosing heart failure with preserved ejection fraction, based on the analysis of 10 articles and national and international guidelines found in the "PubMed" database published from 2018 to 2023. **RESULTS:** The H2FPEF score utilizes clinical and echocardiographic data. The method applies the variables: atrial fibrillation, scoring 3; weight (BMI > 30 kg/m<sup>2</sup>), scoring 2; hypertension (use of 2 or more antihypertensive medications), pulmonary hypertension (PSAP > 35 mmHg), age (> 60 years), and filling pressure (E/e' > 9), each scoring 1. Literature indicates that individuals with high scores (6-9) have over 95% probability of HFpEF, while a score of 0 or 1 is associated with a probability of less than 25%. Patients with intermediate scores (2-5) should undergo additional tests such as diastolic stress echocardiography or resting/exercise catheterization. Of the articles analyzed, 80% (n=8) agreed on the accuracy of the score in diagnosing the disease. However, 20% (n=2) of the articles identified the lack of NT-proBNP evaluation as a weakness, highlighting it as an important marker for HFpEF. All analyzed articles demonstrated the score's utility for prognostic evaluation as well, showing good sensitivity. **CONCLUSION:** The H2FPEF score is a viable alternative for diagnosing HFpEF as it employs non-invasive and lower-cost parameters. However, it has weaknesses such as the absence of NT-proBNP evaluation, which is now part of the diagnostic criteria in major guidelines.

**242. MATERNAL PERSPECTIVES ON CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION**

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**INTRODUCTION:** The development of congenital Zika virus syndrome occurs from transplacental transmission from the infected mother by the bite of the Aedes mosquito to the developing embryo or fetus. In this scenario, the Zika virus infects a group of human neural precursor cells, causing cell death and impairing the development of the fetal nervous system. Therefore, considering the countless consequences of this disorder to the affected children and families, this research aims to evaluate the maternal perspectives involved in the congenital Zika virus syndrome (CZS). **METHODS:** This is a narrative review of the literature, carried out in September 2023 in the PUBMED, Scielo and Google Scholar databases, using the indexed descriptors "Zika Virus", "Mothers" and "Congenital Syndrome", covering researches published between 2018 and 2022. Thereby, 6 articles related to the theme of maternal perspectives on CZS were selected, from which the required data was extracted to achieve the defined objective. **RESULTS:** According to the articles, the conception of children diagnosed with CSZ intensifies the typical concerns and feelings of motherhood, so that the psycho-emotional changes take on additional components. At first, faced with the diagnosis, the expectation of a healthy child is shattered, and feelings of frustration, fear and rejection are common. Another aspect which proves challenging is the change in daily routine due to the required care, which especially burdens the maternal figure by reducing the time dedicated to personal care, leisure and work activities. In addition to that, the frequent inability of the mother to maintain her work activity, added to the increased costs with medication, commuting to health services and relocating in order to be closer to treatment centers, lead to a worsening quality of life. **CONCLUSION:** The development of a child affected by SCZ is a challenge in all its spheres. Therefore, the complexity of family relationships is notorious, especially maternity, in the face of the diagnosis. The psychological and social repercussions to which mothers are subjected negatively affect the strengthening of the mother-child bond, idealized during pregnancy, resulting in a complex matter that transcends the family context and becomes an obstacle to public health.

**243. COMPLICATED EMPHYSEMATOUS PYELONEPHRITIS DUE TO RENAL LITHIASIS: CASE REPORT**

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**INTRODUCTION:** Emphysematous pyelonephritis (PE) is a rare infectious necrotizing condition of the renal parenchyma. It is characterized by the presence of gas in the kidney tissue and is generally associated with diabetes mellitus and obstructive uropathy. The objective of this study was to report a case of PE, with an emphasis on clinical management, based on intensive support and antibiotic therapy, without the need for surgical intervention of nephrectomy. This report was submitted for evaluation by the Research Ethics Committee (CEP), in accordance with the guidelines and regulatory standards for research involving human beings, approved according to Certificate of Presentation for ethical assessment no. 54533521.0.0000.5084. **CASE DESCRIPTION:** Female patient, 45 years old, decompensated diabetic, admitted to an emergency care unit, reporting pain in the left flank, radiating to the pelvis, associated with fever, chills, nausea and vomiting. Abdominal computed tomography revealed stones grouped in the left proximal ureter, left renal lithiasis, in addition to gas foci indicating an infectious process. The patient was admitted with a clinical-radiological diagnosis compatible with PE. Initially, the double J catheter was implanted due to obstruction of the proximal ureter. To treat emphysematous pyelonephritis, she underwent only conservative clinical treatment using the antibiotic pipetazo and adequate glycemic control with insulin therapy, without the need for surgery. And, after the cycle of antibiotic therapy and glycemic control, the patient underwent flexible ureterorenolithotripsy to remove the calyceal stones. **CONCLUSION:** PE is a rare and critical condition, traditionally approached with surgical management. However, this case report demonstrated that when the infectious focus is controlled, a conservative and not necessarily surgical approach can be adopted. Therefore, glycemic control in patients with severe kidney infections, early diagnosis and treatment are crucial to avoid potentially fatal complications.

**244. PRENATAL CARE: IMPORTANCE AND SERVICES PROVIDED IN BRAZILIAN HEALTHCARE**

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**INTRODUCTION:** Quality prenatal care includes several measures aimed at reducing complications or negative impacts on the health of women and newborns. Since the Ministry of Health establishes a minimum support of procedures and exams to be offered to all pregnant women during prenatal care, the objective was to analyze the importance of the quality of these in the prenatal care provided to healthcare users in Brazil. **METHODS:** This is a descriptive-exploratory bibliographic research with a qualitative approach using the Scientific Electronic Library Online database in the last 5 years, using the descriptors prenatal care, primary care, and quality of health care. **RESULTS:** Regarding the organization of prenatal care, there is a predominance of utilization of public services. Women receiving prenatal care in private facilities have a predominance in undergoing exams and consultations compared to those assisted by the public system. The number of consultations in the public service was lower due to lower purchasing power and greater difficulty accessing health services, as well as a lack of guidance on the importance of prenatal care attendance. Regarding the coordination of prenatal care with other services in the state's health network, there were reports of problems in referrals to high-risk reference services. Studies show that the quality of care provided during prenatal care is closely related to favorable outcomes during childbirth and the postpartum period, and that women who received guidance during prenatal visits had fewer complications during these phases. **CONCLUSION:** Despite the significant number of prenatal consultations in the private sector compared to the public sector, both services fall short in providing care, with a predominance of private sector assistance. There is a need to improve the quality of prenatal care, provide technical training for healthcare professionals, and adhere to pre-established technical standards in both sectors, but especially in the public network. All of these tools are essential for finding new outcomes, aiming for comprehensive, equitable, and quality care for all pregnant women.

245. **BRAZILIAN PRISONERS: NARRATIVE REVIEW OF THE MOST COMMON DISEASES AND THEIR CHARACTERISTICS**

Kauã Manuel Costa Araújo<sup>1</sup>, Bruna Ory Pinto Bandeira<sup>1</sup>, Graziela Gama da Conceição Gomes<sup>1</sup>, Ana Carolina Celidonio Almeida Campos<sup>1</sup>, Beatriz Santos Pinheiro<sup>1</sup>, Ana Clara de Carvalho Costa<sup>1</sup>, Michelline Joana Tenório Albuquerque Madruga Mesquita<sup>2</sup>.

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**INTRODUCTION:** According to the Brazilian Public Security Yearbook, in the year 2022, there were 832,295 individuals deprived of liberty (PDL) in the country. This situation becomes alarming as the conditions to which individuals are subjected are degrading, such as unsanitary cells and limited space. This condition facilitates the spread of diseases, whether infectious or psychosocial syndromes. Thus, the present study aims to characterize the scenario of diseases affecting Brazilian inmates. **METHODS:** This is a narrative review that used the descriptors "epidemiology," "epidemiological profile," "disease," "illness," "incarcerated," and "prisoners" associated with Boolean operators in two databases: Virtual Health Library and PubMed, in September 2023. Articles written in Portuguese or English published between 2018 and 2023 were included. A total of 27 articles were found, of which only 4 answered the research question and were chosen to constitute this study. **RESULTS:** The articles corroborate the high prevalence of infectious diseases among PDL, with emphasis on tuberculosis and Human Immunodeficiency Syndrome (AIDS), compared to the general population. The causes of the high rates of these pathologies were: inadequate prison conditions, such as overcrowding, which favor the spread of the Koch bacillus, and the sexual violence suffered by inmates, responsible for the development of AIDS. In addition, regarding chronic diseases, the most mentioned illnesses in the articles were arterial hypertension, asthma, and mental disorders. Thus, more than 40% of inmates presented depression or anxiety, about 20% of the studied population had asthma, and more than 20% were hypertensive. This is due, among other issues, to the fact that approximately 90% of individuals deprived of liberty reported not having access to healthy food, associated with inadequate lifestyles and favorable to the highlighted diseases, such as sedentary behavior. **CONCLUSION:** The harmful context of high population density and unsanitary conditions in Brazilian prisons is notably a problem of great relevance and expression in public health. Therefore, the epidemiology of the illnesses presented by PDL is intimately linked to the precarious environments that surround them, resulting in a high prevalence of infectious diseases, as well as chronic physical and mental damages.

246. **PREVALENCE OF ALZHEIMER'S AND PARKINSON'S AND ITS ASSOCIATION WITH ANTHROPOMETRIC VARIABLES**

James Pereira Alves Junior<sup>1</sup>, Amanda Maria Paiva Pereira<sup>1</sup>, Renata de Oliveira Gonçalves<sup>2</sup>, Joelma Ximenes Prado Teixeira Nascimento<sup>2</sup>, Ludmylla Fontenelle Lopes Chaves<sup>3</sup>.

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**INTRODUCTION:** Brazil has been experiencing population aging, a situation in which there is a higher incidence of Alzheimer's and Parkinson's among the elderly population. In addition to senility, this finding may be a product of the interaction between this condition and other environmental factors (sedentarism, poor diet, and smoking). For this reason, nutritional assessment plays a fundamental role in the prevention and control of these diseases. The objective of this study was to analyze the prevalence of Alzheimer's and Parkinson's, and their association with anthropometric variables of Estudo Longitudinal da Saúde dos Idosos Brasileiros (ELSI-Brasil). **METHODS:** This is a cross-sectional study conducted with data from the second wave of ELSI-Brasil (2019-2021) in adults aged 60 years or older. The variables included were: socioeconomic and demographic (age, gender, self-reported skin color, marital status, education, family income), behavioral (alcoholism, smoking and physical activity level), anthropometric (Body Mass Index - BMI, waist circumference - WC, waist-to-hip ratio - WHR, waist-to-height ratio - WHtR), and neurodegenerative diseases. To analyze the data, Stata® version 14.0 was used, and the association between anthropometric variables and neurodegenerative diseases was performed using the Chi-square test ( $p$ -value < 0.05). The study was approved by the Ethics Committee of the Fundação Oswaldo Cruz of Minas Gerais (CAAE: 34649814.3.0000.5091). **RESULTS:** 7072 elderly people were studied, with a female predominance (61.1%), mean age of 70.1±8.8 years, ranging from 60 to 109 years old, self-declared white skin color (47.3%), stable marital status (50.2%); low education level (78.2%); low income (58.5%); reported alcohol consumption (18.2%); smoking (10.8%) and sedentary (72.2%). The medical diagnosis of neurodegenerative disease was reported by 5.2% of participants for Alzheimer's and 1.1% for Parkinson's. Regarding anthropometric variables, significantly elevated means were evidenced in relation to the recommended values. No statistically significant association was observed between the studied variables and neurodegenerative diseases ( $p$  value > 0.05). **CONCLUSION:** The findings reiterate the importance of investigating risk factors associated with neurodegenerative diseases. Furthermore, it is believed that the results support the structuring of protocols for dietitian to act in a systematic way to promote self-care for these individuals, especially among women.

**247. PREVALENCE OF CONGENITAL ANOMALIES BY REGION IN BRAZIL: 2019-2021**

Lucas de Moura Kurz<sup>1</sup>, Ronald Vinicius de Almeida Junior<sup>1</sup>, Jelly Caroline de Amorim Coutinho<sup>1</sup>, Carine Novaes Paes Leme<sup>1</sup>, Gabriel Sant'Anna Brito e Silva<sup>1</sup>, Vanda Maria Ferreira Simões<sup>1</sup>

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**INTRODUCTION:** Congenital anomalies (CA) are developmental disorders that occur during intrauterine life and represent the second leading cause of death in children up to five years of age in Brazil. As provided for by Law No. 13.685, CA in newborns has a compulsory notification nature. Despite the crucial role of the Live Birth Information System (SINASC) in registering births, under-registration still persists, as well as few regionalized studies that estimate the prevalence of CA based on these data. In this context, the main objective of this study was to determine the prevalence at birth of priority CAs in Brazilian regions from 2019 to 2021. **METHODS:** This is an epidemiological, cross-sectional, retrospective and descriptive study, quantitative presentation, with data collected from all live births registered at SINASC in the period from 2019 to 2021. A descriptive analysis of the data was carried out using absolute and relative frequencies. **RESULTS:** In Brazil, from 2019 to 2021, 8,256,392 live births were registered, with the prevalence of all CA in this period being 8.64/1,000 live births. The year with the highest case notification was 2019 (24,838) and the year with the lowest was 2021 (22,959). The most prevalent CA in the period under study was Q69.9 - unspecified polydactyly. Regarding the analysis of the prevalence of AC by region, the group of anomalies with the highest number of cases reported in the five regions of Brazil was "Other anomalies of the musculoskeletal system", with 19,065 cases. The group "Absence, atresia and stenosis of the small intestine" was less frequent in all regions, with the exception of the South region, in which it was "Congenital deformities of the hip". The Southeast region presented a rate of approximately 3.85/1,000, with 31,832 cases, equivalent to 44.6% of the total anomalies in the period. In the Northeast, the prevalence was 2.32/1,000, in the North, 0.73/1,000, in the South, 1.21/1,000 and, in the Central-West, 0.61/1,000 live births. **CONCLUSION:** The study describes the prevalence of CA in Brazil from 2019 to 2021, using SINASC to collect data. CAs are a relevant public health concern, with marked regional differences. During this period, Brazil recorded 71,393 cases of anomaly, with unspecified polydactyly being the most prevalent. In this work, the regionalization of ACs and affected groups provides valuable information to guide public policies, in addition to filling gaps in scientific production.

**248. PREVALENCE OF LOW BIRTH WEIGHT IN BRAZIL**

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**INTRODUCTION:** Low birth weight (LBW) occurs, according to the World Health Organization (WHO), when the newborn (NB) weighs less than 2,500 grams. LBW directly interferes with neonatal and infant morbidity and mortality, as the lower the birth weight, the greater the risks to the newborn's life. The literature points to several risk factors for the occurrence of LBW, with prematurity and intrauterine growth restriction being the main ones among them. Therefore, estimating the proportion of LBW and its respective risk factors is extremely important for improving prenatal care. Therefore, this study seeks to determine the proportion of LBW and its respective risk factors, based on data reported by the Information System on Live Births (SINASC), seeking to contribute to understanding the variability of the prevalence of LBW in Brazil. **METHODS:** This is an analytical and cross-sectional study, with a quantitative approach. The study population were newborns in Brazilian macro-regions, notified by SINASC in 2020. The variables under study were: number of prenatal consultations, gestational age, type of delivery, birth weight, maternal education level and APGAR index. Data analysis was performed with R (version 4.3.0), considering a significance level of 0.05. Absolute and relative frequencies were calculated as well as the 95% confidence intervals. To evaluate the association between LBW and the variables under study, the chi-square test was used. **RESULTS:** In 2020, around 2,678,104 live births were reported by SINASC, of which 230,372 were LBW. The highest prevalence of LBW was observed in the southeast region with 9.22%, while the northern region had the lowest prevalence in the nation with 7.73% of cases. When evaluating the factors related to LBW, it was observed that gestational age, APGAR in the 1st minute of life, the number of prenatal consultations and maternal education level presented a statistically significant association ( $p < 0.05$ ) in all Brazilian regions. **CONCLUSION:** LBW is a condition with a multifactorial and highly complex cause, whose occurrence depends on conditions existing in each of the national regions. From this perspective, it is expected that the present work will help with the general understanding of the panorama of BPN in Brazil and that it can serve as a substrate for current literature regarding this condition.



249. **THE PREVALENCE OF CATARACT IN PATIENTS WITH DIABETES MELLITUS IN THE BRAZIL: LITERATURE REVIEW**

Victor de Souza Calixto Neves da Silveira<sup>1</sup>, Mayara Kelly Coelho Bêrredo<sup>1</sup>, Pedro Lopes Aragão Filho<sup>1</sup>, Darlan Ferreira da Silva<sup>1</sup>, Hanna Célia Almeida Serra<sup>2</sup>

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**INTRODUCTION:** Cataract is an ocular disease characterized by opacification of the lens, which leads to visual acuity problems, which is the main cause of blindness in Brazil. Thus, the relationship between cataracts and an increasingly prevalent medical condition – diabetes mellitus – is a relevant aspect, given the significant known risk factor for the development of cataracts. In this sense, it is essential to evaluate the prevalence of this eye disease in diabetic patients, emphasizing the importance of understanding the ophthalmologic complications that can lead to blindness, the social and economic consequences, as well as the prevention and treatment strategies. To analyze the prevalence of cataract in patients with diabetes in Brazil, as well as the risk factors associated with the development of this eye disease in diabetic people. In addition to evaluating the biological mechanisms underlying the relationship between diabetes and cataract and its social implications, based on the analysis of the parameters described in the literature. **METHODS:** This is a descriptive study, of the literature review type, involving statistical analysis and interpretation of data, in order to critically evaluate the current scenario of cataract prevalence in diabetic patients in Brazil. Articles were used as study bases, made possible by sites such as Scielo and Google Scholar from 2018 to 2022. **RESULTS:** It was found that, in Brazil, approximately 18 million people have cataracts, with a prevalence of senile cataracts in patients with diabetes compared to the general population. Among this total number of patients, women are more affected than men, with 26% and 22.6%, respectively, with the white ethnicity being the most affected, with about 18%. In this sense, factors such as the duration of the disease, age, glycemic control, and the use of medications increase the risk of developing cataracts. Concomitantly, in patients with DM, cataracts are mainly related to chronic hyperglycemia, which leads to changes in the structure of lens proteins, resulting in marked opacification and loss of transparency. Thus, the social implications of cataracts in patients with diabetes are significant, causing blindness or impaired vision, which can negatively affect quality of life, independence, and the ability to perform daily tasks. This leads to an increased reliance on caregivers and an increase in healthcare costs. As the incidence of diabetes continues to rise, understanding this relationship becomes critical to public health and patient well-being. **CONCLUSION:** Therefore, the follow-up of chronic diseases in Primary Care is essential so that cataracts in patients with diabetes can be controlled, avoiding the progression of this ocular condition and the need for future surgical procedures in Tertiary Care. In addition, the implementation of actions to raise awareness among the population in the communities is essential for an increase in adherence to treatment, which, consequently, will lead to a reduction in diseases associated with diabetes, such as cataracts.

250. **PREVALENCE OF CESAREAN DELIVERIES IN THE STATE OF MARANHÃO IN THE PERIOD OF 2018 - 2020**

Alcione Miranda dos Santos<sup>2</sup>, Francílio Gomes da Silva Junior<sup>1</sup>, Guilherme Magalhães Carrilho<sup>1</sup>, Isabela Marinho da Cunha<sup>1</sup>, Ludmylla Ellen Ferreira Freire<sup>1</sup>, Rafaela dos Reis Araújo<sup>1</sup>, Vanda Maria Ferreira Simões<sup>2</sup>

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**INTRODUCTION:** Cesarean birth is a surgical procedure in which the baby is removed through a cut in the mother's abdomen and uterus. Despite being considered safe, the excessive rate of this type of birth in Brazil represents a problem. In regard to the state of Maranhão, there is a lack of studies related to cesarean section rates among the health macro-regions. Therefore, the present work aims to describe the prevalence of cesarean sections in Maranhão from 2016 to 2020. **METHODS:** This is an analytical, cross-sectional, quantitative study determining the prevalence of cesarean deliveries in Maranhão from 2016 to 2020. The data were obtained using the Live Birth Information System (SINASC) available in the DATASUS database. Variables such as number and type of delivery were analyzed, associating them with maternal age, maternal education, skin color, and gestational age in each health macroregion of Maranhão. The data was processed using the R Studio program. **RESULTS:** A total of 286,935 vaginal deliveries (52.2%), 261,532 cesarean sections (47.5%), and 1,493 other/NA cases (0.3%) were recorded, with a total of 549,960 deliveries evaluated. Analyzing maternal age, women over 40 years old had 50.9% cesarean deliveries, followed by the 30 to 39 age group (57.5%), 20 to 29 years (46.9%), and under 20 years (38.7%). Regarding education, women with no schooling had 74.52% vaginal deliveries and 24.92% cesareans, while those with 12 or more years of education had a cesarean rate of 76.48%. White women had 63.42% cesarean deliveries, black women 41.18%, yellow-skinned women 50.58%, and mixed-race women 46.74%. Women with gestational age less than 37 weeks had a higher rate of vaginal deliveries (55.16%), while those with gestational age equal to or greater than 37 weeks had a higher number of cesareans (48.54%). The Northern macroregion had 144,805 cesarean deliveries (46.4%), while the Southern had 59,005 (49.4%), and the Eastern had 57,722 (48.8%). **CONCLUSION:** During the period analyzed, an increasing trend of cesarean deliveries was observed in the state of Maranhão, associated with advanced maternal age, higher level of education, white race/skin color and gestational age equal to or greater than 37 weeks. The South macro-region recorded the highest prevalence of cesarean sections, followed by the East and North macro-regions.

**251. PREVALENCE OF PRIMARY SPONTANEOUS PNEUMOTHORAX IN SMOKERS: INTEGRATIVE REVIEW**

Ana Clara Freitas Martins Costa<sup>1</sup>, Joana Tenório Albuquerque Madruga Mesquita Meireles Texeira<sup>1</sup>, Julia Rodrigues Ferreira Gomes<sup>1</sup>, Nathalia Chaves Bezerra<sup>1</sup>, Pedro Henrique Regalado Régis Cordeiro<sup>1</sup>, Maria Elza Lima Sousa<sup>1</sup>  
<sup>1</sup>Universidade Ceuma

**INTRODUCTION:** Pneumothorax is characterized by the presence of free air in the pleural cavity, it is a frequent clinical pathology that presents several peculiarities in its clinical presentation, and can happen spontaneously, being classified as primary, when it happens without a precipitating event, or secondary, when the person has past comorbidities; and in an acquired form, resulting from trauma. Tobacco consumption is the biggest risk factor associated with the appearance of subpleural lesions that progress to primary spontaneous pneumothorax (PSP). **METHOD:** This is an integrative review of the literature that evaluated the prevalence of primary spontaneous pneumothorax in smoking patients. Data collection was carried out on the Scielo, PubMed and Google Scholar platforms, including English and Portuguese. **RESULTS:** In primary spontaneous pneumothorax, bullae or subpleural lesions are found, particularly at the apices of the lungs. The rupture of these bullae is the factor responsible for this type of pneumothorax. Smoking considerably increases the risk of these lesions appearing, which evolve into PSP, with a strong dose-response link between the number of cigarettes smoked and the risk of pneumothorax. As smoking is the most important risk factor for the appearance of PSP, up to 88% of patients with this pathology are smokers in large-scale observational studies. A smoker, compared to non-smokers, has a 9 times higher risk in women and a 22 times higher risk in men of developing PSP. Cannabis smoking also increases the risk of developing spontaneous pneumothorax and is associated with the development of emphysematous changes and the development of lung disease. This pathology occurs predominantly in smokers as a result of the toxic substances present in cigarettes, which affect the action of the body's immune cells, thus causing tissue damage in the lungs, such as subpleural damage. The characteristic symptoms of PSP are chest pain and dyspnea, which can be diagnosed through physical examination, observing the reduction of breath sounds and chest expansibility. **CONCLUSION:** It is concluded that primary spontaneous pneumothorax is prevalent in smokers, as cigarette consumption favors the appearance of subpleural lesions that evolve into PSP, the risk is bigger for men and is increased by cannabis smoking.

**252. PREVALENCE OF EXCLUSIVE BREASTFEEDING IN THE FACE OF DOUBLE WORKING HOURS**

Ilanna Moraes Carvalho<sup>1</sup>; Ana clara Rosa Silva dos Santos<sup>1</sup>; Ana Luíza da Veiga Albino<sup>1</sup>; Maria Eduarda Moura Silva<sup>1</sup>; Carla Gabryella Marques<sup>1</sup>; Isabella Aragão Pachêco<sup>1</sup>; Francisca Bruna Arruda Aragão<sup>2</sup>  
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<sup>2</sup>Universidade Ceuma, nurse, doctorate in science

**INTRODUCTION:** Exclusive breastfeeding (EBF) is essential for the health of newborns and their mothers, as it has many nutritional, emotional and immunological benefits. These advantages are relevant, since continuous breastfeeding in the first year of life is capable of preventing one in every 7.5 infant deaths. Milk is a significant source of nutrition for infants, as it is made up of fats, proteins and carbohydrates, and protects against diabetes mellitus, digestive diseases, allergies, malnutrition and obesity. In Brazil, breastfeeding has received investment since 1981, with the establishment of the National Program to Encourage Breastfeeding (PNIAM), which resulted in an increase in exclusive breastfeeding rates in the country. However, with the current situation in Brazil, many breastfeeding women return to work earlier, interrupting breastfeeding and thus exposing their infants to industrialized products earlier. **METHODS:** This is an integrative literature review. A survey was carried out of articles from the last 20 years, obtained from the Virtual Health Library (VHL), Scielo and PubMed databases, using the English descriptors: "Breastfeeding", "Women" and "Work". The aim of the study was to analyze the prevalence of exclusive breastfeeding in the face of double working hours. The inclusion criteria were articles from the last 20 years in Portuguese and English, and the exclusion criteria were applied, excluding review studies. **RESULTS:** According to the studies analyzed, breastfeeding in the first hours of life and EBF up to 6 months are essential for the neonate's quality of life, avoiding morbidities and mortalities. There was a prevalence of breastfeeding up to 4 months of age, especially among women who work long hours, given that maternity leave lasts 120 days. Another study showed a prevalence in women who work close to home or who have a support network that can help them, such as health professionals and family members, with instructions on how to store milk. **CONCLUSION:** It can be concluded that family and professional support, adequate conditions in the workplace and a positive previous experience seem to be favorable parameters for a mother's decision to breastfeed. However, a major effort is still needed if Brazil is to achieve the rates recommended by the PNIAM among women who face a double working day.

253. **PREVALENCE AND RISK FACTORS FOR PLACENTA PREVIA: AN EPIDEMIOLOGICAL ANALYSIS**

Daniela Almeida da Hora<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, Kellen de Jesus Farias da Luz<sup>1</sup>, Bruna Leão Lemos Câmara<sup>1</sup>, Alynne Bayma dos Santos<sup>1</sup>, Erika Krogh<sup>1</sup>

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**INTRODUCTION:** The term placenta previa (PP) refers to a situation in which the placenta covers either fully or partially the internal cervical os. Currently, it has become more prevalent due to high rates of cesarean sections, advanced maternal age, multiparity, the use of artificial reproductive technologies, previous aspiration and curettage, smoking, and cocaine use during pregnancy. Additionally, this condition can be classified as major when it overlaps entirely or partially with the internal cervical orifice, and partial when the overlap is <20 mm. The former increases the risk of prepartum and postpartum hemorrhage, premature birth, and hysterectomy. Resolution typically involves cesarean section between 36-37 weeks. Knowing that, this study aims to describe the epidemiological profile of placenta previa between 2020 and 2023. **METHODS:** This is a descriptive epidemiological study based on data provided by the Departamento de Informática do Sistema Único de Saúde (DATASUS). The study population consisted of cases of hospitalizations in the SUS of women with placenta previa aged between 15 and 79 years in the state of Maranhão, reported between June 2020 and July 2023. **RESULTS:** Between 2020 and 2023, 943 hospitalizations for placenta previa occurred in the state of Maranhão, with the majority of cases in 2021 (31.57%). Of these hospitalizations, 98.5% (n=936) occurred as emergencies. Regarding macro-regions, it is noted that the north was responsible for the majority of cases (48.6%), followed by the south (34.5%) and east (16.8%). About socioeconomic aspects, this comorbidity was more frequent in women aged 20-29 years (51.6%, n=491), 30-39 years (31.2%, n=297), and 15-19 years (13.68%, n=130). Such predominance in the first two groups is also observed in other epidemiological studies. The financial cost associated with this condition is high, with R\$544,638.94 spent in Maranhão during this study period. **CONCLUSION:** The increase in hospitalizations over the years, coupled with the predominantly emergent nature of care, emphasize the importance of preventive measures and awareness strategies. The geographic distribution and associated costs highlight the need for efficient resource allocation. These data provide a solid foundation for future interventions aimed at improving maternal care in the state of Maranhão.

254. **PREVENTION OF CERVICAL CANCER: FREQUENCY OF PREVENTIVE REALIZATION AND EDUCATION**

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**INTRODUCTION:** Cervical cancer (CC) is mostly caused by persistent infection via subtypes of the Human Papillomavirus (HPV). It is the 4th most common among women in the world, although it is preventable and curable when detection and treatment are adequate. The scientific relevance of this research is based on the high prevalence of CC in the country and state and the need for increased bibliography to study this tumor. The objective is to outline the epidemiological profile of women diagnosed with this pathology in Maranhão from 2013 to 2022 and analyze the data collected. **METHODS:** A descriptive and observational study was carried out using data collected in the Cancer Information System (SISCAN) and the Cervical Cancer Control Information System (SISCOLO), from 2013 to 2022, seeking to trace the epidemiological profile of these women. **RESULTS:** 1.666,302 cytopathological tests were performed to screen for CC in the aforementioned interval. Of these, 98.72% were due to the indication for screening, while 0.40% were due to altered results – abnormality of squamous epithelial cells – and 0.86% were due to follow-up. Regarding the collection period for a new exam, 141,784 took it in the same year, 508.719 in one year, 253.626 in two years and 121,525 in three years; the rest of the sample had the period ignored or inconsistent. Furthermore, when stratifying age according to the screening indication by the Ministry of Health in the gap between 25 and 64 years for sexually active women, in this range, 1.333,360 tests were collected, while 252.321 were carried out at younger ages and 80.613 at older ages. recommended. Regarding education, 1.658,779 did not have the information recorded. However, incomplete primary education (N=3,454) predominates among the records, followed by, in descending order, complete secondary education (N=1,647), complete primary education (N=1,330), illiterates (N=776) and completed higher education (N=316). **CONCLUSION:** Cervical cancer is a significant public health concern, affecting a large number of women, a fact that is closely related to education. It is noteworthy that in the case of women with higher education, there is less notification due to the use of private health services. The screening exam is crucial for early detection and effective treatment regardless of the level of education, as well as education and awareness on the subject.

**255. PREVENTION AND CONTROL OF CHRONIC PAIN AFTER DIABETIC FOOT AMPUTATION: SYSTEMATIC REVIEW**

Ana Clara Arouche Lemos da Silva<sup>1</sup>, Marcelle Teixeira e Silva<sup>1</sup>, Anna Karoliny Freitas de Souza<sup>1</sup>, Francisco Santos de Almeida<sup>1</sup>, Renato de Freitas Farias<sup>1</sup>, Dâmaris Gonçalves Vieira<sup>1</sup>, Walquiria Lemos Ribeiro da Silva Soares<sup>1</sup>.

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**INTRODUCTION:** Amputation is a therapeutic procedure that involves the removal of a limb or part thereof. In Brazil, between 2008 and 2015, 361,585 amputations were recorded in the Hospital Information System of the Unified Health System. In patients with Diabetes Mellitus (DM), one of the most common complications is diabetic foot. It is estimated that 50 to 85% of amputated individuals develop post-amputation chronic pain (PACP). **METHODS:** This is a systematic review conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) method. The guiding question was: "What are the main measures for prevention and control of post-amputation chronic pain in diabetic extremities?" The studies were searched in electronic databases - National Institute of Medicine (NIH-PubMed), Scopus, and Web of Science, from September to October 2023. The following descriptors extracted from the Medical Subject Headings (MeSH) were used for the searches: "limb amputation," "secondary amputation," "repeat amputation," "diabetic foot," "pain," and "chronic pain." Boolean operators "AND" and "OR" were used for descriptor cross-referencing. **RESULTS:** Out of the total of 12 analyzed articles, the highest publication frequency was found in 2021 (n: 04), with the highest production of works in Australia (n: 02). Regarding the Qualis of the journals in the sample, 10 studies are classified between A1 and A4 by the Coordination for the Improvement of Higher Education Personnel (CAPES). **CONCLUSION:** Based on the analysis of the studies included in this review, it is possible to propose that various factors are involved in the prevention and control of post-amputation chronic pain, such as lifestyle, smoking, and factors related to DM clinic, such as cardiovascular diseases, peripheral neuropathy, ulcer severity, and previous presence of the lesion or other amputations. It can also be suggested that there is a strong protective effect of pain caused by preventive pharmacological therapies for post-amputation chronic pain (PACP), administered via epidural route, in combination with drugs applied in a perioperative regimen. Although the individual bias risk of the studies was low, further studies are recommended to strengthen the evidence.

**256. POTENTIAL OF PROBIOTICS AS ADJUVANT THERAPY IN THE ERADICATION OF HELICOBACTER PYLORI**

Francilio Gomes da Silva Junior<sup>1</sup>, Guilherme Magalhães Carrilho<sup>1</sup>, Isabela Marinho da Cunha<sup>1</sup>, Isabella Barreto Froz<sup>1</sup>, Ludmylla Ellen Ferreira Freire<sup>1</sup>, Rachel Melo Ribeiro<sup>1</sup>, Rafaela dos Reis Araújo<sup>1</sup>

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**INTRODUCTION:** Peptic ulcers are lesions that occur in the lining of the stomach and duodenum, which can cause severe pain and discomfort to patients. Infection with the bacteria *Helicobacter pylori* is an important factor in the development of these ulcers. The appropriate approach to the treatment of *H. pylori* infection in peptic ulcers is essential for the healing of these lesions and prevention of their complications. Thus, the purpose of this work was to gather scientific evidence on the association of the use of probiotics in therapy to treat the eradication of *H. pylori*, in a systematic, orderly and comprehensive manner, in order to contribute to deepening knowledge on the topic. **METHODS:** This study consists of an integrative review. For the development of the work, a thorough search for original scientific articles published in the PubMed database was conducted using the descriptors "probiotic," "*Helicobacter pylori*" combined through the boolean operator AND. Inclusion criteria considered studies that presented the descriptors in the title or abstract and were written in English, being clinical trials. Articles written in languages other than English, as well as those whose title or abstract did not fit the proposed theme, were excluded. The bibliographic data search between 2022 and 2023 resulted in a total of 93 scientific articles. After extensive analysis, only 7 studies met all the selection criteria and were included in this study. **RESULTS:** Regarding the therapy adopted in cases of *Helicobacter pylori* infection, adjuvant therapy has demonstrated significant effectiveness. The groups that underwent additional treatment with probiotics and triple therapy had an average eradication rate of 83.39%. Furthermore, some studies have demonstrated an improvement in the inflammatory response and a reduction in adverse effects, such as a reduction in abdominal pain and bloating in 42% and 25% of cases, respectively. **CONCLUSION:** The addition of probiotics as adjuvant therapy has provided a series of benefits in the treatment of *Helicobacter pylori* infection. This therapeutic approach has shown promise by increasing the clearance rate of *H. pylori*, improving the composition of the intestinal microbiota, reducing the levels of inflammatory cytokines and minimizing the occurrence of adverse gastrointestinal effects.

**257. PHYSIOLOGICAL PRODUCTION OF NITRIC OXIDE: A NARRATIVE REVIEW**

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**INTRODUCTION:** Nitric oxide (NO) is a gaseous molecule that mediates important physiological pathways in the human body, produced by neurons, endothelial tissue, gastric protonation and macrophages. It can act as a second messenger in target molecules involved in vasodilation, pregnancy, bronchodilation, antithrombotic, neuronal action and combating some diseases. Given this, it is necessary to have a broad understanding of how NO production pathways occur and how they fit into the context of maintaining homeostasis. **METHODS:** This is a narrative review based on 8 articles selected from the Scielo and PubMed databases, which allowed a better understanding of the physiological pathways of NO production. **RESULTS:** In our body, NO is generated endogenously by the action of the enzyme nitric oxide synthase (NOS), which oxidizes the amino acid L-arginine into L-citrulline, the free radical .NO or simply NO, another route is the gastric acid action of ingested nitrites. NO acts on vasodilation, neurotransmission, bronchodilation, inhibition of platelet aggregation, production of gastric mucus, pregnancy and antimicrobial action. In this case, NO is produced in large quantities by macrophages and other cells of the immune system. In the central and peripheral nervous system, evidence suggests that NO acts as a neurotransmitter, mediating the adaptation capacity of synapses to conduct nerve impulses and promoting the release of hormones and other neurotransmitters, produced via glutamate in the synaptic cleft, which enables the activation of the neuronal NOS enzyme, participating in memory and learning. Non-adrenergic non-cholinergic (NANC) nerves release NO and promote bronchodilation. In the cardiovascular system, NO is produced by the endothelial cells of blood vessels and promotes smooth muscle relaxation and inhibition of platelet aggregation by activating the soluble guanylate cyclase enzyme. Stomach NO formed from the protonation of nitrites concentrated in saliva, mediates blood flow and mucus production in the mucosa. During pregnancy, it is involved in ovulation, implantation, maintenance of pregnancy, labor and birth. **CONCLUSION:** The relevance of NO for maintaining the functionality of important physiological events in the human body becomes evident. NO is currently the main topic of numerous scientific studies, as there is still a lot to understand about the role of this molecule in our organism.

**258. WHEN BURN BECOME CANCER: A REVIEW OF MARJOLIN'S ULCERS**

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**INTRODUCTION:** Marjolin's ulcer (MU) is a health condition in which injured chronic healing wounds become malignant processes. Despite its rarity, its incidence is increasing due to population aging, which indicates the need to investigate this neoplastic phenomenon. Against this backdrop, this study aims to investigate the relationship between burns and the genesis of MU. **METHODS:** A bibliographic survey, carried out on the VHL, Scielo and Pubmed platforms, of studies addressing the theme of MU, published in Portuguese and English between 2017 and 2023. As exclusion criteria, articles outside the survey period or in another language were not analyzed. **RESULTS:** The etiology of Marjolin's ulcer is made up of a number of factors, which are influenced by local trauma, although this event in itself is not carcinogenic. The average latency period between the initial wound and the discovery of malignant degeneration is 30 to 35 years, and the average age of presentation is 59 years. This trauma aids in the malignization of the lesion, as it intensifies some carcinogenic factors, such as ultraviolet rays, due to the greater sensitivity of traumatized skin. Low and middle-income countries are the main countries to report MU and need opportunities for prevention and early detection. Injuries were still most frequently located on the lower extremities of the body. The most common type of tumor in this ulcer is squamous cell carcinoma (71%), but Pavlovic et al. report that other malignancies such as basal cell carcinoma (12%), malignant melanoma (6%), osteogenic sarcoma, fibrosarcoma and liposarcoma (4%) have also been found. There is a notable risk of lymph node metastasis and distant metastasis, which suggests the need for cross-sectional radiological staging. Chemotherapy has not shown satisfactory results, while radiotherapy is used in selected cases and requires further investigation. Diagnosis and excision should be carried out early for the best clinical outcome, given the rapid progression, tissue damage and worse prognosis. **CONCLUSION:** Although it is a rare condition, understanding the risk factors, clinical characteristics and type of malignancy presented by Marjolin's ulcer is essential to guide medical practice in order to improve the prevention, treatment and prognosis of patients affected by this condition.

**259. RECOMMENDATION FOR THE USE OF ACETYSALICYLIC ACID IN THE PREVENTION OF CARDIOVASCULAR EVENTS**

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**INTRODUCTION:** Cardiovascular diseases (CVD) are the main cause of death and premature disability in the global panorama, also presenting great importance in the Brazilian scenario and an exponential growth rate in frequency, mortality and hospital costs. In an attempt to prevent cardiovascular events, primarily and secondarily, several strategies are adopted, including the use of acetylsalicylic acid (ASA) as an alternative to prevent ischemic events. However, recent evidence opposes the use of this medication in primary prevention due to its risks and effectiveness. The present study aims to evaluate recommendations for the use of ASA in the prevention of cardiovascular events. **METHODS:** The present study is a systematic literature review prepared through articles found in the PUBMED and SCIELO databases. The research was carried out using the Health Sciences Descriptors (DeCS): "Acetylsalicylic Acid", "Prevention" and "Cardiovascular", together with the Boolean operators "AND" and "OR". 162 studies were found in accordance with the inclusion criteria: articles with full text, available for free access, published between 2020 and 2023. After reading, 6 articles were selected that suited the objective of the study. **RESULTS:** Recent studies that aimed to evaluate the efficacy and safety of ASA in the primary prevention of ischemic cardiovascular events indicate that the use of this medication does not result in significant differences in the incidence of these events when compared to the control group. Furthermore, these studies identify an increased risk of bleeding events even at the low doses usually used (75-100mg/day), particularly in groups with a greater predisposition to such occurrences, such as the elderly. However, the same studies provide positive recommendations regarding the use of acetylsalicylic acid in the secondary prevention of cardiovascular events, since the benefits for patients outweigh the risks associated with the use of the drug. **CONCLUSION:** It is concluded, therefore, that the use of ASA in the primary prevention of ischemic cardiovascular events is not widely recommended due to its potential hemorrhagic effect, even at low doses, and the potential efficacy of its use should be evaluated to the detriment of these effects secondary. However, the use of the drug in the secondary prevention of these events proved to be satisfactory.

**260. PSYCHIATRIC REFORM IN BRAZIL: A LITERATURE REVIEW**

Dara Farias Freitas<sup>1</sup>, Pedro Antônio da Costa Carvalho<sup>1</sup>, Cícero Newton<sup>1</sup>

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**INTRODUCTION:** Psychiatric reform in Brazil had its origins in the post-dictatorial movement, with the implementation of the Unified Health Program (SUS), in which, after the fall of the country's regime, it gained visibility in the Federal Constitution (CF) of 1998, in which the State is responsible for the obligation to manage its citizens, among other points seen as basic, health. This qualitative work sought to analyze the trajectory of Brazilian psychiatric reform, post-dictatorship, aiming to observe the main changes that occurred, highlighting the laws that underlie them. **METHOD:** For this, a theoretical survey was carried out using scientific articles using the method known as case study. This method, considered demanding (when compared to other research methods), has great value in the investigative field of human and health sciences, as it allows the researcher a broad view of contemporary social manifestations, helping him to understand the object of study, seeking to understand all its aspects in a unique way. With regard to the instruments used in the study, bibliographical research on the topic was used, such as: scientific articles from periodicals collected from the Virtual Health Library (VHL), Latin American Caribbean Health Sciences Information System (LILACS), Scientific Electronic Library Online (SCIELO) and monographs, as well as exploration of current legislation. **RESULTS:** Psychiatric reform in Brazil achieved significant changes, mainly after the country's support and greater political involvement. However, the biggest change occurred with the transformation of society's paradigms, in the understanding of what mental illnesses are and what requires asylum hospitalization, what should be done for these patients and the multidisciplinary actions that should take place for their progress. **CONCLUSION:** This article ends by highlighting that psychiatry and its branches continue to undergo constant reform, always adapting to current socioeconomic standards.

261. **RELATIONSHIP BETWEEN NEONATAL JAUNDICE AND BREASTFEEDING IN INFANT HEALTH: SYSTEMATIC REVIEW**

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**INTRODUCTION:** Exclusive breastfeeding is widely recommended in the first 6 months of life due to the health benefits it provides for the baby. However, it presents itself as one of the risk factors for neonatal jaundice, a common physiological condition marked by high levels of bilirubin in the blood in many newborns. In this regard, this study aims to investigate the possibility of continuing or discontinuing breastfeeding during the neonatal jaundice period considering the risks and benefits. **METHODS:** A systematic review was conducted to analyze the results of studies that relate neonatal jaundice to breastfeeding. PubMed, Scielo, and Lilacs were consulted to select eligible articles, considering articles written in English published between 2019 and 2023. The following descriptors were used for the search: Jaundice, Neonatal, Breast Feeding. Inclusion and exclusion criteria were applied to the articles found in the literature. **RESULTS:** The presence of epidermal growth factor (EGF) was observed in breast milk, with higher quantities in colostrum, which was associated with a decrease in transcutaneous bilirubin levels, consequently reducing the incidence of late-onset jaundice. As a result, the administration of colostrum in the first 72 hours is related to physiological jaundice in neonates, as newborns who do not receive colostrum are more likely to develop jaundice. Finally, it was observed that mothers of jaundiced neonates admitted to the hospital have a higher rate of breastfeeding continuation, as there is encouragement from healthcare professionals. **CONCLUSION:** Therefore, it is evident that it is not recommended to stop breastfeeding during the neonatal jaundice period, as breastfeeding provides immunological protection, neuropsychomotor development for the infant, and a psychological connection between mother and baby. In light of this, there should be encouragement for exclusive breastfeeding from healthcare professionals, clarifying to mothers that the benefits of breastfeeding outweigh the risks during physiological jaundice, emphasizing that this alteration is a temporary condition.

262. **INTRACARDIAC TUMOR RESECTION IN NORTHEAST BRAZIL OVER THE LAST DECADE**

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**INTRODUCTION:** Cardiac neoplasms can be malignant or benign and mostly originate in the tissues of the inner lining of the heart, in the myocardium or in the pericardium. In addition, the stage of the tumor when diagnosed determines its classification into primary or secondary. Tumors in early stages are called primary. Tumors in advanced stages are called secondary or metastatic. In general, the absence of symptoms in patients with intracardiac neoplasms hinders early clinical diagnosis. Late-stage tumors can cause severe embolization or obstruction. Still, with the advancement of diagnostic technology, surgical treatment has become more feasible. Thus, the present study aims to analyze the rates of resection of intracardiac tumors in the Northeast region (NE) in a decade. **METHODS:** This is a descriptive quantitative study, with retrospective analysis over a ten-year period — July 2013 to July 2023. The SUS Hospital Information System (SIH-SUS) was used to collect information in the TABNET database. The variables used were: number of hospitalizations, type of care, total value, year of hospitalizations, and mortality rate. As these were secondary data, approval by the Research Ethics Committee was not required. **RESULTS:** From 2013 to 2023, there were 1,429 hospitalizations for resection of intracardiac tumors, of which 274 (19.17%) were performed in the Northeast. In this region, Ceará was the state responsible for the largest number of these procedures, as well as for the highest amount spent in the period (BRL 931,459.36, totaling about 22% of regional costs). There were 16 deaths in the NE, and the mortality rate of the procedure was 5.84%. Regarding the nature of care, about 169 (61.6%) of the procedures performed in the region were elective, with a mortality rate of 2.47%, and 105 were urgent, with a mortality rate of 11.43%. **CONCLUSION:** In view of this study, it was noted that hospitalizations for surgical resection of intracardiac tumors in the Northeast were mostly performed in Ceará, resulting in higher costs in this state as well. In addition, most of the procedures were elective.

263. **INTEGRATIVE REVIEW OF TTP AND ITP: EXPLORING HEMORRHAGIC AND THROMBOTIC DISTURBANCES**  
Brunna Stefanne Araujo Cardoso<sup>1</sup>; Crystiana Carvalho Silva Lauande<sup>1</sup>; Keyza Maria Gomes Cunha<sup>1</sup>; Natália Fernandes Reis Cabral<sup>1</sup>; Sara Ellen Cabral Silva<sup>1</sup>; Madeline Porto Candeira Rodrigues<sup>1</sup>.  
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**INTRODUCTION:** Thrombotic Thrombocytopenic Purpura (TTP) is a disorder involving the formation of small blood clots that block the blood flow to vital organs such as the brain, heart, and kidneys. It occurs in hereditary and acquired forms, with a deficiency of metalloprotease ADASMTS13 – responsible for cleaving von Willebrand Factor multimers; and development of an IgG autoantibody – that inhibits ADASMTS13, respectively. Already the, Immune Thrombocytopenic Purpura (ITP) is a hemorrhagic disorder in which the immune system produces antibodies against platelets and destroys them. Like this the aim is to explore hemorrhagic and thrombotic disorders in TTP and ITP. **METHODS:** This is an integrative literature review, having as inclusion criteria the Google Scholar, BVS, and SciELO, databases in the last 10 years, experience reports were excluded, five articles selected which will be discussed below. **RESULTS:** TTP is clinically characterized by a quintet consisting of thrombocytopenia (gastrointestinal, urinary, and cutaneous bleeding), microangiopathic hemolytic anemia, neurological abnormalities (headaches, stroke), fever, and renal failure (proteinuria and hematuria). Laboratory tests reveal reduced platelets, the presence of schistocytes, and elevated LDH. Coagulation tests are normal, and ADAMTS13 is reduced or absent. Regarding ITP, an autoimmune pathology, it is classified based on the age group affected and the duration of evolution. In adults, it often presents as a chronic condition with a high recurrence rate, while in children, it is acute and triggered by viral infection. Most cases are asymptomatic; however, symptomatic individuals experience bleeding (petechiae, bruising, epistaxis, gingival bleeding, and menorrhagia), fatigue, and/or a decrease in quality of life. Diagnosis is exclusionary, ruling out other pathologies and observing platelet levels in the complete blood count. **CONCLUSION:** Understanding these disorders is crucial for early diagnosis and appropriate treatment to prevent severe complications and improve the quality of life for affected patients. Therapeutic approaches should be personalized, considering the origin of the condition and the individual needs of the patient. Further research and studies are needed to enhance knowledge and therapeutic approaches for these conditions, which, although rare, are clinically significant.

264. **CARDIOVASCULAR RISK ASSOCIATED WITH THE USE OF ANABOLIC STEROIDS: LITERATURE REVIEW**  
Hyandra Gomes De Almeida Silva<sup>1</sup>, Vanessa Silva Sousa<sup>1</sup>, Maria Luiza Nunes Pereira<sup>1</sup>, Amanda Karen de Oliveira Freitas<sup>1</sup>, Maria Luiza Santos Viana<sup>1</sup>  
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**INTRODUCTION:** Anabolic androgenic steroids (AAS) are a group of synthetic molecules derived from testosterone and its related precursors. They are widely used indiscriminately by adolescents and athletes, especially bodybuilders, both for aesthetic use and as physical performance enhancers. When used improperly, they can cause damage to health and disorders that affect various organic functions. With this in mind, this study aims to review the cardiovascular risk associated with the use of anabolic steroids. **METHODS:** This research is a literature review carried out between July and October 2023, following the Health Sciences Descriptors. The standardized descriptors were "anabolic androgenic steroids" and "cardiovascular risk", using articles from the BVS, Scielo, Lilacs and Medline search engines. The inclusion criteria were original articles published in full online in Portuguese and English, within the last 5 years, using the aforementioned descriptors. The exclusion criteria were duplicate articles and those that did not meet the theme of the data search using the defined descriptors. **RESULTS:** The use of anabolic steroids affects not only professional athletes, but also the general population. In the first case, their use is prohibited and sanctioned by the World Anti-Doping Agency, however, for most users who are looking to improve performance and physical appearance, it is possible to obtain the products indiscriminately on the internet and mostly without a professional prescription. Among the most common medical causes of death in athletes, sudden cardiac death stands out and has been associated with the use of performance-enhancing drugs, with the most commonly cited AAS being nandrolone, testosterone and stanozolol, and the most frequently reported macroscopic alterations being cardiomegaly and left ventricular hypertrophy. It has been shown that the use of ASA alters the physiological cardiac remodeling of athletes to pathophysiological cardiac hypertrophy with an increased risk of potentially fatal arrhythmias. **CONCLUSION:** We can consider that the use of anabolic steroids has deleterious effects on numerous physiological variables. In addition, the abuse of these substances in particular can lead to impaired cardiac function.



**265. EWING SARCOMA: EPIDEMIOLOGY, DIAGNOSIS AND TREATMENT**

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**INTRODUCTION:** Ewing's Sarcoma (ES) is a rare and aggressive type of bone cancer, which most commonly affects the long bones of the legs, pelvis, and thoracic wall. It is the second most common sarcoma in childhood and results from a random mutation. ES does not have familial inheritance characteristics; thus, there are no preventive mechanisms. The most affected populations include children, adolescents, young adults, males, and individuals of white ethnicity. Therefore, this study aims to elucidate the epidemiology, diagnosis, and treatment of ES. **METHODS:** This is a literature review conducted with articles in Portuguese, English, or Spanish, found in the databases Scielo, Lilacs, BVS, and PubMed, using the following keywords: Ewing's Sarcoma, Epidemiology, Diagnosis, and Treatment, excluding articles addressing other neoplasms, and collecting only relevant articles published in the last 10 years. **RESULTS:** As a malignant tumor, there are no screening tests capable of early diagnosis. The main signs and symptoms include persistent bone pain, possibly accompanied by non-disappearing edema. Systemic signs such as fever and weight loss are also noteworthy. Thus, ES diagnosis is based on clinical findings and the performance of laboratory, imaging, and biopsy tests. Regarding treatment, chemotherapy and/or radiotherapy are necessary, along with surgery for tumor removal. The continuity and guidance of multidisciplinary treatment vary according to patient outcomes and needs. Physical therapy is recommended for patients requiring strength and mobility. Some cases may necessitate reevaluation and additional chemotherapy sessions. In more severe situations, limb amputation to contain proliferation is the most appropriate procedure. **CONCLUSION:** Given the complexity and rarity of Ewing's sarcoma, treatment planning should be conducted at a specialized center with a multidisciplinary team, as this type of cancer does not end with surgery. Therefore, patients should undergo annual follow-up even after achieving remission to prevent and treat possible recurrences at an earlier stage.

**266. NEONATAL BACTERIAL SEPTICEMIA, THE MAIN CAUSE OF CHILD DEATHS IN MARANHÃO, IN 2022**

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**INTRODUCTION:** Septicemia is one of the main causes of infant mortality, it presents systemic clinical manifestations resulting from the presence of a pathogen in the newborn's body, and can be classified as early or late: early (the pathogen originates in the maternal genitourinary tract), in the late period (the infection usually comes from the hospital environment), given the relevance of this topic, the objective of this research was to investigate data on neonatal bacterial septicemia, which was the main cause of infant deaths in Maranhão, in 2022. **METHODS:** Study carried out descriptive, quantitative, with secondary data, coming from the SUS Information System (DATASUS), on infant deaths in 2022. The variables studied were: "ICD-10 category", "sex", "color/race", "pregnancy duration", "birth weight", "type of birth", "detailed age range", "Maranhão", "mother's age" and "mother's education". **RESULTS:** In 2022, there were 1,499 infant deaths in this State, the main cause of which was bacterial septicemia in newborns (n=131). The majority of deaths from this cause (ICD 10=P36) were male babies (n=81), brown (n=99), premature babies (n=97), with low birth weight (500g and 999g)- (n=37), with vaginal birth (n=76), and with late-onset sepsis, after the first three days of life (n=94). Regarding the profile of mothers of newborns suffering from bacterial septicemia, the majority are between 15 and 19 years old (n=31), and have 8 to 11 years of schooling (n=59). **CONCLUSION:** Cases of infant death due to bacterial septicemia in newborns registered in Maranhão in 2022 may have as main factors the hospital environment and poor hygiene in the handling of newborns, given that the majority of records occurred in relation to premature babies, with low birth weight, and started late, after the babies' first three days of life. Therefore, it is essential to invest in better hygienic and sanitary conditions in maternity wards and pediatric intensive care units in Maranhão.

**267. SYPHILIS IN PREGNANCY: A DESCRIPTIVE STUDY OF THE BRAZILIAN SITUATION BETWEEN 2005 AND 2022**

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**INTRODUCTION:** Syphilis is a sexually transmitted infection caused by the spirochete *Treponema pallidum*. Its manifestations are notably multifaceted, with different stages occurring over time in untreated infections. The infection is particularly concerning during pregnancy due to the risk of transplacental transmission to the fetus. Congenital infection may be associated with various consequences, including perinatal death. The objective of this study is to analyze the epidemiological profile of syphilis cases in Brazil between 2005 and 2022. **METHODS:** This is a retrospective descriptive study based on available data from the Department of Health Information System (DATASUS). Data on syphilis cases during pregnancy in Brazil between 2005 and 2022 were collected and processed using Microsoft Excel® for statistical analysis. **RESULTS:** From 2005 to 2022, a total of 535,034 cases of gestational syphilis were recorded in Brazil. Of these, 45.3% resided in the Southeast region, 21.4% in the Northeast, 14.6% in the South, 10.3% in the North, and 8.4% in the Midwest. Between 2005 and 2010, 37,360 cases were diagnosed. In 2011, there were 13,758, and in 2012, 16,438 cases. In 2013, this number rose to 20,916. In 2014, 2015, 2016, 2017, 2018, 2019, and 2020, there were, respectively, 26,624, 32,783, 38,305, 49,845, 63,407, 64,578, and 65,835 reported cases. In 2021, there were 74,095 cases, and by June 2022, 31,090 cases had already been registered. The majority of these cases, specifically 193,667, were diagnosed in the first trimester of pregnancy. Regarding age group, 6,292 were between 10 and 14 years, 126,583 between 15 and 19 years, 291,027 between 20 and 29 years, 99,795 between 30 and 39, and 11,157 were over 40 years. Regarding education, 3,482 were illiterate, 141,080 had incomplete primary education, and 75,494 had incomplete secondary education. A total of 50,595 completed primary education, and 99,739 completed secondary education. Only 5,690 had a higher education degree. **CONCLUSION:** Comparative analysis revealed that the most affected region in the country is the Southeast. It was also observed that a significant number of cases were diagnosed in the first trimester of pregnancy and in women aged 20-29. Syphilis in pregnant women remains a public health issue in Brazil. Health education actions and proper prenatal care are essential for early diagnosis and treatment. Lack of appropriate treatment can lead to congenital syphilis and its complications.

**268. CRIGLER-NAJJAR SYNDROME: A REVIEW OF THERAPEUTIC APPROACHES**

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**INTRODUCTION:** Crigler-Najjar Syndrome is an autosomal recessive hereditary liver disease that prevents the conjugation of bilirubin. It can be classified into type 1, with absence of glucuronyl-transferase, and type 2, with partial deficiency of this enzyme. This leads to hyperbilirubinemia, which causes severe jaundice and bilirubin encephalopathy if left untreated. This study aims to analyze the importance and impact of different therapeutic approaches on the prognosis of the disease. **METHOD:** This is a descriptive study of the literature review type, in which the Scielo and Pubmed databases were consulted, using the descriptors "Crigler-Najjar", "hyperbilirubinemia" and "therapeutics". The inclusion criteria were articles written in Portuguese and English and published between 2019 and 2023. Thus, 4 articles were selected and read in full for the preparation of the paper. **RESULTS:** In the therapeutic approach to Crigler-Najjar syndrome type 1, plasmapheresis is the treatment of choice for these patients. Phototherapy can temporarily decrease indirect bilirubin levels, creating an "excretable" form that can be eliminated in bile or urine. In addition, inhibiting bilirubin production by administering heme oxygenase inhibitors has proved useful during crises. It is worth noting that phenobarbital, a transferase inducer, does not produce positive effects, since there is no availability of enzymes to be induced. Liver transplantation is the only definitive option for curing the condition. In Crigler-Najjar Syndrome type 2, phenobarbital is effective in reducing blood levels of indirect bilirubin, as it stimulates transferase activity. In addition, it can be used to differentiate between types I and II of the syndrome. **CONCLUSION:** Crigler-Najjar Syndrome is a chronic pathology that has a high impact on patients lives, and the more its treatment is neglected, the greater its complications, which can have neurological consequences and lead to death. Therefore, understanding its treatment is essential, as is encouraging new research to improve the quality of life and prognosis of its patients.

269. **MUNCHAUSEN SYNDROME POWER OF ATTORNEY: WHEN THE SEARCH FOR HEALTH TURNS INTO VIOLENCE**

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**INTRODUCTION:** Munchausen Syndrome by Proxy (SMP) is a form of child abuse, in which one of the parents, mostly the mother, appears to have signs and symptoms in the child, with the aim of attracting attention to himself, exposing the infant to unnecessary and potentially harmful treatments. This work aims to analyze the picture, giving an overview of this condition. **METHODS:** This is a narrative review that used the descriptors 'Munchausen syndrome by power of attorney', 'Munchausen syndrome', and 'child abuse'. Thus, a bibliographic survey was made in the BVS, PubMed and Google Scholar databases and articles in Portuguese and English published from 2013 to 2023 were included. Thus, 35 articles were found, of which only 6 met the inclusion criteria and were analyzed in this review. **RESULTS:** The harmful behavior on the part of the parents in placing the child in the condition of a patient would be motivated by the need to attract medical attention. In addition, it is observed that the mother, through a precarious marital relationship, seeks in the hospital environment the ideal father, the provider of care, since the chronic disease generates a continuous dependence on the hospital service. In addition, repetitive behavioral indications coming from parents may be suggestive to help in the recognition of the syndrome, such as inconsistent stories reported by different people, the insistence of parents on invasive procedures and hospitalizations, the incongruous behavior of the caregiver regarding the pain of the offspring, and the presence of signs only when accompanied. In addition, a great challenge is established, given that the SMP can cause consequences for the victim, from psychological problems to death. Likewise, the various admissions to the medical service place health professionals in a reckless situation, that is, as potential causes of damage to the child, since the promotion of unnecessary treatments and procedures makes medical practice prudent in a continuous iatrogenic. **CONCLUSION:** Therefore, there is a repetitive behavioral pattern among those responsible for this type of abuse, as well as distinctive characteristics in the identified cases that should be noted in the suspicion of this disorder. Identifying the patterns allows an early diagnosis, avoids the suffering of the victims, and enables adequate treatment for the person who is actually sick. Therefore, it is crucial that there be expanded information about the SMP.

270. **SYMPTOMS, DIAGNOSIS AND TREATMENT OF CUSHING'S SYNDROME: LITERATURE REVIEW**

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**INTRODUCTION:** Cushing's Syndrome (CS), or hypercortisolism, is an endocrine disorder that may have endogenous or exogenous origin and is characterized by chronic exposure to high levels of cortisol, resulting in various symptoms, which may be accompanied by psychological disorders. Despite advances in its diagnosis, hypercortisolism persists as a challenge to endocrinological practice. The objective of the work is to present an understanding of relevant aspects regarding Cushing's Syndrome. **METHODS:** This is a literature review carried out through a qualitative study based on the search for articles, published nationally and internationally, between the years 2019 and 2023. The digital platforms PubMed, MEDLINE, Elsevier, Google Scholar and Scielo. The terms used for the search were "Cushing's Syndrome"; "Cushing's disease"; and "Hydrocortisone". The inclusion criteria were the approach and coherence with the theme in the chronological interval of the last 5 years; of exclusion, unrelated or insignificant outcomes for understanding the topic and case reports. 12 articles were selected. **RESULTS:** Cushing's Syndrome, as it has very heterogeneous causes, ranging from prolonged use of glucocorticoids to the presence of neoplasms, is difficult to diagnose, as it requires the performance of diverse and complex tests and, therefore, there is no more accurate knowledge about the incidence and prevalence of CS. In addition to the challenge of making a diagnosis, the multiplicity of causes directly interferes with the high diversity of treatments that include pharmacological and/or surgical approaches. Symptoms are also not of great contribution to making a differential diagnosis as there are few exclusive symptoms. Thus, the wide manifestation of the disease's frequent symptoms and the complexity of the tests required for diagnosis, combined with the low number of studies on the subject, make it a complicated pathology. **CONCLUSION:** It is concluded that Cushing's Syndrome is a rare condition, with some diagnostic difficulty and high morbidity and mortality. Your treatment may include pharmacotherapy, radiotherapy or even surgery. The increase in mortality is due to delays in treatment and diagnostic difficulties, causing future complications. It is essential that there is a greater spread of this disease, in order to inform and assist in early identification.

**271. VACCINE COVERAGE RATE AND MENINGITIS CASES IN CHILDREN IN MARANHÃO (2013-2022)**Miriam Santos Nunes<sup>1</sup>, Gildean Pereira Costa<sup>1</sup>, João Pedro Oliveira da Silva<sup>1</sup>, Débora Cardoso de Oliveira<sup>1</sup>.<sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Vaccination is one of the greatest achievements of modern medicine, which plays a significant role in preventing infectious diseases, with effectiveness linked to vaccination coverage. The relationship between vaccination, vaccination coverage and meningitis is crucial, as this disease is potentially serious and preventable with vaccines. Meningitis, inflammation of the membranes covering the brain, can be caused by viruses or bacteria, with bacterial forms presenting severe complications. Vaccination is vital in preventing bacterial meningitis, but its success depends on the population's vaccination coverage. Low coverage rates can enable infectious disease outbreaks, emphasizing the importance of immunization programs and equitable access to vaccines in promoting public health. **METHODOLOGY:** This is a cross-sectional, quantitative and descriptive study, with data obtained from the Information Technology Department of the Unified Health System (DATASUS) regarding vaccination coverage of Meningococcal C, Pentavalent, BCG and 10-valent conjugated Pneumococcal vaccines, from the years from 2013 to 2022; and cases of meningitis in children under 4 years of age, excluding those ignored/blank, from the same period in Maranhão. **RESULTS:** In the period studied, the vaccine with the highest coverage rate was BCG, with 93.5%, and the lowest, the 1st booster of 10-valent pneumococcal, with 70.38%. There is a continuous decrease in the vaccination coverage rate, from 92.5% in 2015 to 75.3% in 2022, reaching its lowest percentage in 2020 (61.9%), the year before a significant increase in meningitis occurrences. In the state of Maranhão, with 49 cases. In 2022 there was an increase in the number of cases (57), along with the maintenance of the low immunization rate, 63.7%. It is also noteworthy that there does not seem to be an obvious connection between an increase in deaths from meningitis and a specific immunizer. **CONCLUSION:** There is a significant decrease in the vaccination coverage of immunizers that protect against infections by different types of bacteria that cause meningitis, including meningococcus, and an increase in the incidence of the disease, highlighting the importance of immunization in preventing disease outbreaks. It is worth noting that this decline was accentuated mainly in 2020, the year the COVID-19 pandemic began in Brazil. Therefore, the relevance of maintaining and strengthening immunization programs and equitable access to vaccines is evident as a fundamental part of promoting public health.

**272. CIRCULATORY SYSTEM SURGERY MORTALITY RATE SURGERY IN MARANHÃO FROM 2013 TO 2022**Gabrielle Barbosa Ferreira<sup>1</sup>, Raul Felipe Santos Ribeiro<sup>1</sup>, Jairo de Araújo Oliveira<sup>1</sup>, Bruna Oliveira Montes do Rosário<sup>1</sup>, Laura Rosa Carvalho Dias<sup>1</sup><sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Circulatory system surgery encompasses two specialties: vascular surgery and cardiology. This type of surgery is classified as of moderate complexity, demanding specialized professionals and technological resources for diagnosis and treatment. Consequently, this study aims to analyze the mortality rate related to circulatory system surgery in Maranhão from 2013 to 2022. **METHODOLOGY:** It constituted an ecological, cross-sectional, and descriptive study, conducted in the state of Maranhão, Brazil, covering the period from 2013 to 2022. The data, obtained from the Department of Information Technology of the Unified Health System (DATASUS), were analyzed based on variables such as units of the federation, procedure groups, mortality rate, deaths, and time period. The data were assessed for the specified periods to facilitate a comparative analysis. Since secondary and publicly available data were used, approval from the ethics committee was not required. **RESULTS:** There were 23,498 hospitalizations for circulatory system surgery, comprising 2,056 in 2013 and 3,026 in 2022, indicating an approximately 47% increase between the two periods. Regarding deaths and mortality, a total mortality rate of 3% was observed, with rates of 1.51% in 2013 and 3.96% in 2022. Out of 706 total deaths, 31 occurred in the initial year of analysis, rising to 127 in the final year. **CONCLUSION:** The analysis of operation and mortality rates during the same period reveals a disproportionate relationship between the two, underscoring the need for further studies in this field. This exploration aims to ascertain whether other factors contribute to the rising mortality rates, ultimately seeking improvements in operational conditions in Maranhão.

**273. GENETICS ANALYSIS TECHNIQUES FOR ACUTE LYMPHOBLASTIC LEUKEMIA: A LITERATURE REVIEW**

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**INTRODUCTION:** Acute Lymphoblastic Leukemia (ALL) is a malignant, uncontrolled proliferation of hematopoietic cells with a high metastatic potential. It is the most common pediatric neoplasm, representing the second leading cause of death in children under 15. The aim of this study was to identify new genetic analysis technologies and their contributions to the diagnosis and treatment of ALL. **METHODS:** This work consists of a bibliographic review, carried out in October 2023, using the scientific literature available on the PubMed, Nature and SciELO platforms, based on 5 articles published in the last 5 years in English and Portuguese. The descriptors used were: Acute Lymphoblastic Leukemia, Diagnostic Techniques and Procedures and Genetics. **RESULTS:** Techniques such as Multiplex Linkage Probe Amplification (MLPA), by analyzing abnormalities in particular areas of DNA, have been shown to accurately identify aneuploid-type ALL, which, because it is commonly associated with poor prognosis, requires early diagnosis. Another efficient technique is the DNA Index (DI), whose specificity lies in identifying hyperploid and masked hypoploid ALL, which together account for almost 30% of childhood ALL cases and which have more favorable results than conventional treatments. In addition, fluorescent in situ hybridization (FISH) is another molecular technique considered standard for identifying ALL as intrachromosomal amplification of chromosome 21 (iAMP21), the most common type in older children and with the most unfavorable results, requiring more intense treatments. Finally, more recent genetic sequencing technologies, such as whole genome sequencing (WGS), transcriptome sequencing (RNA-seq), whole exome sequencing (WES) and targeted genetic sequencing, have shown efficiency in recognizing the most varied subtypes of ALL and their clinical repercussions. **CONCLUSION:** It is therefore understood that genetic sequencing technologies are promising for the diagnosis, treatment, prognosis and understanding of the biology of childhood ALL, as they recognize the different subtypes of ALL, which is vital for health promotion for pediatric oncology patients.

**274. SCREEN TIME DURING CHILDHOOD: POSSIBLE CORRELATION WITH SUBSEQUENT DEMENTIA**

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**INTRODUCTION:** The vast popularization of technological media in contemporary times has been affecting children even below two years old, producing direct adverse effects in development that are amply registered but under-studied due to little observation time. The question then raised is what is the correlation between the harmful effects of prolonged screen time and possible dementia syndromes in subsequent ages. **METHODS:** This study was an integrative literature review. It was constructed based upon the PICO (Population, Intervention, Control, and Outcome) acronym method, which allowed the following selection of key descriptors and Boolean operators: Dementia OR Alzheimer AND Child AND Screen time. The platforms used for research were Scielo, PubMed, and Cochrane, and the selected works had pertinent themes and were published in the last ten years. **RESULTS:** Neuroplasticity is an innate characteristic of humans and is vastly influenced by environmental factors, being of great importance for the satisfactory evolution of childhood neurodevelopment. Regarding prolonged screen use, structural changes were evident, localized in the occipital cortex, prefrontal cortex, temporal cortex, limbic structures, reduction of functional connectivity in cortical-subcortical circuits, and abnormalities in grey and white matter microstructures. Such changes in areas of sensitive, cognitive, motor, and reward centers are at risk for cognitive pathologies that can cause subsequent dementia. Functionally, there is also a correlation between the presenting of symptoms of dysfunctions relating to attention and humor due to screen use. Such symptoms are also mentioned as risk factors for dementia syndromes. Furthermore, the use of technologies at an early age is related to the development of obesity, reduction of physical activities, and higher food consumption, which are causes of metabolic syndromes equally associated with dementia. **CONCLUSION:** Due to the substantial increase in screen use being only within recent generations, there is a need for more study of the long-term effects of said use. However, it is possible to infer many correlations between the risk factors for dementia and the use of technologies, making it possible for future diagnoses to take place. More significant follow-up time with exposed individuals is necessary to conclude more about the topic.

**275. TEMPORAL TRENDS IN STROKE MORTALITY RATE IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Stroke stands as the second-leading cause of mortality globally and the primary cause within Brazil. Characterized by a typically focal neurological deficit of sudden onset or rapid progression lasting longer than 24 hours, stroke presents as either ischemic (IS), accounting for approximately 80% of cases, or hemorrhagic (HS), constituting 20% of cases. In this context, this study aims to assess the temporal trends in stroke mortality rates in the state of Maranhão. **METHODS:** This study adopts an ecological, cross-sectional analysis with a quantitative approach, utilizing data sourced from the Department of Health Informatics of the Unified Health System (DATASUS). Information encompassing hospital admissions, gender, race, age groups, deaths, and mortality rates was collected. Prais-Winsten regressions, considering autocorrelation in time series, were employed to analyze incidence rate trends. For annual percentage changes (APC) and their respective confidence intervals, the calculation method proposed by Antunes (2005) was utilized. Statistical analysis was performed using SPSS 25.0 for Windows, with a significance level set at 5%. **RESULTS:** Between 2013 and 2022, there were 7,419 recorded stroke-related deaths in the state of Maranhão, comprising 3,801 male deaths and 3,618 female deaths. The mortality rate stood at 14.6%, exhibiting an ascending trend over the years, increasing from 11.95% (2013) to 14.86% (2022) among males and from 10.92% (2013) to 14.68% (2022) among females. Concerning race, the highest number of cases occurred in individuals of mixed race (21,311), followed by those of yellow (3,184), white (1,464), and black (851). The Prais-Winsten method revealed a rising trend in stroke mortality cases in Maranhão for both males, with an APC of 8.5 (2.3; 13.2;  $p = 0.02$ ), and females, 12.5 (6.5; 16.4;  $p = 0.01$ ). **CONCLUSION:** The observed increase in stroke mortality over the past decade in Maranhão underscores the imperative need to expand access to preventive measures and control modifiable risk factors to curtail the occurrence of new cases. Furthermore, enhancing intervention measures applied to stroke patients is essential for optimizing outcomes.

**276. PHARMACOLOGICAL THERAPY IN THE TREATMENT OF DIABETIC FOOT IN PINHEIRO: A CASE REPORT**

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**INTRODUCTION:** Diabetic Foot (DF) is a complication of Diabetes Mellitus (DM) that involves ulcers, infections, tissue necrosis and, in severe cases, amputation. There are around 7.12 million Brazilians with DM II, with around 484,500 ulcers and 169,000 hospitalizations. The study aims to compare the pharmacological treatment of DF ulcers carried out in the clinical cases followed and that indicated in the literature. The entire study was carried out under National Health Council Resolution 466/12, with approval from the Human Research Ethics Committee of the Federal University of Maranhão and approved under opinion 70382923.4.0000.5087. All volunteers validated participation through the Free and Informed Consent Form. **CASE DESCRIPTION:** These are two cases, both female, diagnosed with DM associated with DF, seen and monitored between April and June 2023, in a private clinic in Pinheiro-MA. Patient A, 62 years old and with DM since 2018, and Patient B, 71 years old, hypertensive for 26 years and with DM for 16 years. In both cases there was standard pharmacological therapy: biguanide and sulfonylureas (SUs) for glycemic control (A: Metformin 1g orally.; Gliclazide 30mg orally; B: Metformin 850mg orally, 2x/day; Glibenclamide 5mg orally, on an empty stomach). The Brazilian Diabetes Society (SBD) highlights the safe use of SUs in terms of cardiovascular risk and lists Gliclazide as the one with the lowest risk for hypoglycemia. Patient A, after fever, hyperemia, asthenia, headache and areas of necrosis on the right ankle, received Benzetacil (1200 IU) + 5 doses of Ceftriaxone 1g + 1 dose of Cefuroxime 10 mg. Patient B, after hyperemia and foci of necrosis in the distal third of the right lower limb, took Levofloxacin 500 mg orally, for 10 days. The use of 2nd and 3rd generation cephalosporins + Clindamycin is indicated by SBD for the treatment of moderate or severe DF infections with foci of necrosis, in addition to indicating the use of beta-lactamase inhibitors, carbapenems or metronidazole. Furthermore, as a complement to healing, injectable Arnica Montana D2 was used, 10 ampoules of 2.2ml IM, 10% papain (topical use), ozone therapy (2x/week, 60µg/ml), and ozonized sunflower oil. **CONCLUSION:** The pharmacological therapies used are in accordance with the literature, which reflects the importance of ensuring patients' full adherence to treatments, along with the necessary dietary adjustments and, under the evaluation of health professionals, the use of complementary therapies.

277. **GESTATIONAL TOXOPLASMOSIS AND RELATIONSHIP WITH RACE AND AGE GROUP IN MARANHÃO BETWEEN 2019 AND 2022**

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**INTRODUCTION:** Despite the low incidence of gestational toxoplasmosis in the state of Maranhão, the disease is still important in the context of Maranhão, causing serious challenges for infected women. In this sense, the objective of this study is to describe the cases of gestational toxoplasmosis infection in Maranhão and to correlate the data with the variables age group and race. **METHODS:** This is an observational, descriptive and ecological study with a quantitative approach, carried out through data collection from DATASUS, following the frequency of notifications and using the variables color/race and age group. The period analyzed was from 2019 to 2022. Based on the data collection carried out on October 2, 2023, descriptive statistics were applied using Excel in order to organize the research results. **RESULTS:** The data showed a total of 1204 cases and showed an increase in the incidence of the disease in the period analyzed, with an increase of 60.49% from 2019 to 2023. In addition, there was a correlation between young adults aged between 20 and 39 years (70.34%) and brown women (75%). **CONCLUSION:** The results showed a clear relationship with young adults, which can be explained by the higher probability of women becoming pregnant in this age group, and brown skin color, by the large percentage of brown people in the state. Thus, congenital toxoplasmosis was related to women who were more likely to become pregnant and was also shown to be a relatively important disease in Maranhão. Therefore, it is still important to warn the population about the prevention of toxoplasmosis, especially in pregnant women, due to the serious risks to the fetus and the mother that the protozoan can cause.

278. **CONDUCTION DISORDERS AND CARDIAC ARRHYTHMIAS: AN EPIDEMIOLOGICAL ANALYSIS OF THE NORTH AND NORTHEAST OF BRAZIL**

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**INTRODUCTION:** Conduction disorders and cardiac arrhythmias (CDCAs) are electrical alterations in the heart that change the normal rhythm of this organ, causing tachycardias, bradycardias and irregular heart rates in the propagation of impulses, causing electrical instability. The aim of this study is to analyze the epidemiological survey of hospitalizations due to TCACs in the North and Northeast regions between 2015 and 2022. **METHODS:** This is an epidemiological, quantitative, cross-sectional and retrospective study. Data was collected from the SUS Hospital Information System (SIH/SUS), made available by DATASUS from 2015 to 2022. The variables analyzed were: geographical and annual distribution of hospitalizations, type of care, age group, gender, deaths and mortality rate. **RESULTS:** In the period analyzed, 94,817 hospitalizations for CDCAs were reported in the North and Northeast regions, with the Northeast accounting for 82.59% (n=78,312) of the total and the North for 17.4% (n=16,505). The states of Bahia (n=24,349), Pernambuco (n=16,697), Ceará (n=12,565) and Pará (n=6,161) stand out, with the latter receiving the most admissions in the North, followed by Amazonas (n=3,680). The years 2019 to 2022 saw more hospitalizations in both regions, totaling 50,221 cases in this period alone. Emergency care was the most prevalent type of care, with 75.3% (n=71,399) of cases. The most affected age group was 70 to 79 years old, which accounted for 25.9% (n=24,561) of the total. Another parameter analyzed was the prevalence between the sexes, which showed a difference between the two of 2,081 hospitalizations in the North and 986 in the Northeast, with males being more affected. With regard to deaths, the regions had 9,340 cases and the Northeast accounted for 80.27% (n=7,498) of these fatal outcomes. However, when the mortality rate (MR) of the two regions is analyzed, the North is ahead with a MR of 11.16% while the Northeast has one of 9.57%. **CONCLUSION:** CDCAs account for a significant proportion of hospitalizations for cardiovascular diseases in the North and Northeast of Brazil and are a major challenge for public health, since they can lead to sudden death. Primary care should seek to recognize and intervene early in cases of clinical instability, and it is therefore necessary to expand knowledge and management of the clinical profile of patients with CDCA and their complementary test findings.

**279. MENTAL DISORDERS RELATED TO WORK IN THE STATE OF MARANHÃO FROM 2018 TO 2022**Bruna Luise De Almeida Carvalho<sup>1</sup>, Eduarda Silva Fernandes Araújo<sup>1</sup>, Gabriel Neves Ezon Ferraz<sup>1</sup><sup>1</sup> Universidade Ceuma

**INTRODUCTION:** Mental Disorders Related to Work (MDRW) result from situations arising from how work is organized and managed, and in some cases, exposure to chemical agents. In Brazil, the notification of these disorders is compulsory. According to the National Social Security Institute (INSS), more than 200,000 people were removed from work due to mental disorders in 2022. Thus, the present study aims to analyze the epidemiological profile of Mental Disorders Related to Work in the State of Maranhão from 2018 to 2022.

**METHODS:** This is a descriptive, surveillance study, using data obtained from the public domain platform of the Notifiable Diseases Information System (SINAN), covering the period from 2018 to 2022 in the state of Maranhão. The descriptive variables used for the study were: sex, age group, specific diagnosis, and case outcome. **RESULTS:** In the analyzed timeframe, 55 notifications were recorded. The female sex accounted for 61.81% (n=34) of the notifications, while males accounted for 38.18% (n=21). The predominant age group was 25-34 years, representing 40% (n=22) of the notifications, followed by 35-44 years with 30.9% (n=17). Among the analyzed cases, neurotic, stress-related, and somatoform disorders (F40-F48) and mood disorders (F30-F39) showed the highest frequency of notifications, with 49% (n=27) and 30.9% (n=17), respectively. Regarding the case outcome, temporary incapacity was the most common outcome, accounting for 58.18% (n=32) of the notifications, while 5.4% (n=3) resulted in confirmed recovery. **CONCLUSION:** Therefore, it was found that females were the most affected, with the predominant age group being between 25 and 44 years. Furthermore, the data indicate underreporting and the need for most professionals to take time off from work activities. In light of this, it is necessary to optimize the process of recognizing and reporting these diseases, due to their importance in guiding public health promotion and prevention policies.

**280. TREATMENT CHOICE FOR RETINOBLASTOMA: A LITERATURE REVIEW**Lucian da Silva Araujo<sup>1</sup>, Bianca de Jesus Coelho Reis Sousa<sup>1</sup>, Márcia Sousa Barroso Santiago<sup>1</sup>, Layana Cristina Diniz Araújo<sup>1</sup>, Emanuela Vitória de Barros Tavares Cavalcante<sup>1</sup>, Lucas Hideki Matsumoto<sup>1</sup>, Adriana Leite Chavier<sup>1</sup>.<sup>1</sup>Medical Student at CEUMA University – UniCEUMA, São Luís (MA)

**INTRODUCTION:** Retinoblastoma is a rare type of eye cancer, more common in children under the age of three, and it can be lethal if not treated. There are three types of retinoblastomas: unilateral, bilateral and the primitive neuroectodermic tumor. The diagnostic can be concluded through the red reflex test. Ophthalmic appointments are also necessary to do the ophthalmoscopy and to request an eye globe's ultrasound and a magnetic resonance of the eye orbits. The symptoms include leukocoria, strabismus, impaired vision, eye pain, a bigger eye globe and amblyopia. The early diagnostic can lead cure chances up to 90%. Because of the many types of treatment and the singularity of each case, this literature review objectifies to clarify how the choice for the retinoblastoma treatment is made. **METHOD:** It was carried out an analysis of bibliographic data in articles found in two databases: Scielo and Pubmed, between 2018 and 2023. The keywords explored were: retinoblastoma, choice of treatment and early diagnostic. 10 articles were selected after research. **RESULTS:** It was noticed that the conduction of the retinoblastoma is very complex and the treatment is singular for each case, having the main goal preservation of life. The current treatments used have been showing a great level of survival when the tumor is identified in a located state. It is necessary an initial deep evaluation of the disease so it can be defined as an extension to the treatment and avoid unnecessary collateral effects. The treatment of choice also depends on the staging of the International Retinoblastoma Classification to analyze the disease's presentation. The patient's family historic needs to be evaluated for a definition of treatment, like extraocular clinic factors. In many times is necessary to combine different treatment techniques. It is also important to maintain a follow-up protocol after therapy and long-term. **CONCLUSION:** There are many treatment options available, since chemotherapy and radiotherapy to more precise techniques. The choice of treatment must be individualized and carefully evaluated. Constant advances in researches and in practices are vital to improve options of treatment and assure a better quality of life to the patients.



**281. TREATMENT OF ADHD IN ASSOCIATION WITH OTHER PSYCHIATRIC DISORDERS: INTEGRATIVE REVIEW**

Isabela Silva Nakata<sup>1</sup>, Hannara Andrade Gabina de Oliveira<sup>1</sup>, Rafael Casanovas Tavares Pimentel<sup>1</sup>, Maria Fernanda Almeida do Vale<sup>1</sup>, Rhana Luiza Trabulsi<sup>1</sup>, Isabela Feitosa Andrade<sup>1</sup>

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**INTRODUCTION:** Attention Deficit Hyperactivity Disorder (ADHD) consists of inattention and/or hyperactive-impulsive behaviors, manifesting itself in more than two contexts. Comorbidities in ADHD can result in an accentuation of symptoms and the overlap of these indicators tends to result in diagnostic confusion. Commonly, Anxiety Disorder (AD) and Substance Use Disorder (SUD) co-occur with ADHD as comorbidities, and, due to the convergence of symptoms, create an intensification and the aforementioned diagnostic confusion. These comorbidities make it difficult to manage the individual's treatment, as their symptoms are subject to variable responses to ADHD intervention. Therefore, the objective of this study was to investigate the necessary adjustments to this treatment. **METHODS:** This consists in an Integrative Literature Review, with the research question being: "How is ADHD associated with comorbidities treated?". Furthermore, the databases used were the Virtual Health Library (VHL) and the U.S. National Library of Medicine (PubMed). Only articles related to the guiding question from the last 5 years were included, available free of charge and in full, regardless of language, disregarding articles that did not meet the referential criteria. **RESULTS:** 30 studies were found of which 4 constituted a final sample, summarized in a descriptive way. In general, the texts point out that both AD and SUD worsen the symptoms of ADHD. Furthermore, symptoms shared with anxiety, such as inattention and irritability, tend to make it difficult to differentiate between disorders, leading to mistaken diagnoses. This also occurs when there is a comorbidity with SUD, as impulsivity and emotional dysregulation are common to both. Therefore, conventional treatment for ADHD using stimulants tends to be less effective in these cases, as increased anxiety and impulsivity are often a side effect of these medications. **CONCLUSION:** It is understood that the association between ADHD and AD or SUD requires greater clinical attention, given that the symptoms overlap, making diagnosis difficult and requiring new treatment approaches that seek to relieve the condition intensified by comorbidities.

**282. TREATMENT AND SURVIVAL AFTER GIST TUMOR SURGERY**

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**INTRODUCTION:** The gastrointestinal stromal tumors (GISTs) comprise the most common mesenchymal neoplasm of the gastrointestinal tract. They originate from Cajal cells, which act as pacemakers for the nerve impulses controlling peristalsis. GISTs can occur throughout the GI tract, with the stomach being the most affected organ and having the best prognosis. Primary treatment is surgical, involving complete tumor resection with clear margins (R0). Neoadjuvant therapy with Imatinib may be considered in cases with a high risk of recurrence. This study aims to analyze the impact of surgical and adjuvant treatment on the survival and prognosis of patients with GIST. **METHODOLOGY:** This review covered articles published between 2019 and 2022, obtained through Google Scholar and PubMed. They were selected based on keywords related to GIST and treatments. The analysis of the articles highlights trends and relevant results in the clinical approach to GIST. **RESULTS:** GIST tumors primarily affect men aged between 50 and 60 years; a study conducted by PUC-RS, analyzing 109 medical records of individuals diagnosed with GIST between 1985 and 2010, showed a predominance in white patients. Among the most common symptoms in the study were weight loss, digestive bleeding, and abdominal pain. In another study conducted by a reference institution in southern Brazil, with 38 patients analyzed (2011 - 2020), the stomach was the most affected site (63%), followed by the small intestine (17%). Additionally, metastases were observed in 24% of cases. About 76% of patients underwent surgery alone, while 13% received neoadjuvant treatment. Those who underwent surgery showed better five-year survival rates, while neoadjuvant or imatinib therapy did not demonstrate significant differences. **CONCLUSION:** GIST tumor, although relatively rare, still poses a significant challenge to medical practice. The nonspecific symptoms, associated with various differential diagnoses, make disease identification a diagnosis of exclusion. Surgery, among all treatment options, emerged in studies as the most effective measure and showed the best prognosis for patients. Nonetheless, expanding research on the pathology and long-term post-surgery follow-up may be the cornerstone to identify the most appropriate and effective disease management.

283. **KELOIDAL SCAR TREATMENT: A LITERATURE REVIEW**  
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Jorge Fernando Lopes da Cunha<sup>1</sup>, Guilherme Dutra Oliveira<sup>1</sup>,  
Adélia Jane Saraiva Garrido Carneiro<sup>1</sup>, Rayssa Yasmin Pereira  
Sauaia<sup>2</sup>, Bismarck Ascar Sauaia<sup>1</sup>  
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**INTRODUCTION:** Keloidal scars result from a process of tissue repair with fibroblasts hyperproliferation and increased extracellular matrix deposition. Generally, it shows multilateral growth, greater than 4 millimeters, and elevation, not containing itself within the limits of the lesion. Currently, the treatment approaches for keloids present low success rates and high recurrence rates, however, new protocols have been proposed to minimize the scar condition and prevent recurrence. This work aimed to showcase the different procedures for keloidal scar treatment available in the current literature. **METHODOLOGY:** The work consists of a narrative review about the different procedures for keloidal scar treatment. For this purpose, a bibliographic survey was carried out on the VHL, Scielo and Pubmed platforms, searching for studies involving clinical-surgical protocols used in the treatment of keloidal scars, published in Portuguese and English between the years of 2019 and 2023. Exclusion criteria include works published outside the delimited period and/or languages. **RESULTS:** There are several surgical and therapeutic protocols for keloidal scars treatment and prevention, including: intralesional Triamcinolone injections before and during the surgical approach, and in the postoperative period as well; prolonged application of phototherapy using UVB and tUVB for reducing the size and improving clinical appearance of the lesions. Furthermore, the use of topic silicone gel and corticosteroids for keloid prevention in Pfannenstiel Incisions can be mentioned, as well as the injection of steroids preceded by cryotherapy for scar texture improvement. Additionally, there's the exposure to an 100% oxygen environment, a procedure used for difficult healing lesions and some central nervous system conditions, as well as in conditions that require the reduction of inflammatory processes, as the case of keloidal scars. The therapy induces the reduction of HIF-1-Alpha, Interleukin-1-Beta and Tumor Necrosis Factor expression. The purpose of treatments is to improve appearance of the scar, as well as representing a barrier to post-excision relapse. **CONCLUSION:** Keloid Scars are a public health condition, as it consists of a pathological scar of great importance, as well as significant epidemiology, with multifactorial treatment, involving different areas of clinical, therapeutic, and pharmacological conduct combined before, during and after the surgical approach, aiming the improvement on the scar appearance and post-excision recurrence prevention.

284. **NON-CONSERVATIVE TREATMENTS FOR DIABETIC FOOT ULCERS: OZONE THERAPY AND LASER THERAPY**  
Viktória Araújo da Costa<sup>1</sup>, Douglas da Costa Siqueira<sup>1</sup>, Emily  
Conceição Ribeiro<sup>1</sup>  
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**INTRODUCTION:** Diabetic neuropathy is the most prevalent chronic complication of diabetes mellitus. Its management may involve restorative and basic treatment (glycemic control), in addition to adjuvant measures. The latter includes ozone therapy and low-intensity laser therapy (LLLT), which promote tissue repair and antiseptis. The objective of this summary is to report the effects obtained with the use of ozone (O<sub>3</sub>) and LLLT in two patients with diabetic foot ulcers (DUP). **METHODS:** The research took place in the municipality of Pinheiro-MA, between April and June 2023, governed in accordance with Resolution of the National Health Council 466/12, with approval from the Ethics Committee for Research with Human Beings of the Federal University of Maranhão and approved under opinion number 70382923.4.0000.5087. Volunteers validated their participation by signing the Informed Consent Form. **RESULTS:** Two patients (62 and 71 years old) who underwent pharmacological therapy in association with LLLT (point application, 2J/cm<sup>2</sup>, 2x/week) and ozone therapy (60-20µg/ml, 2x/week, topical with creams and ozonized oils). It was observed that such measures have been successful in patients, with tissue repair and reduction of inflammation, indicating that they are satisfactory in the healing process for UDP. According to Chamanga (2018), LLLT helps oxygenate and granulate the damaged epithelium, reduces inflammatory foci and algesia, confirming its effectiveness. While ozone therapy is still the subject of discussion. On the one hand, its use in dental care and aesthetic purposes has been proven to be effective, and on the other hand, it is a constant topic of debate about its use in the healing of ulcers. According to Pinheiro and Barbosa (2021), O<sub>3</sub> improves metabolism in general by repairing oxidative stress, providing antimicrobial and healing effects. Law No. 14,648, dated 04/08/2023, was recently approved, which authorizes health professionals registered on inspection councils and with O<sub>3</sub> equipment regulated by the National Health Surveillance Agency to use it in the national territory for the treatment of wounds. **CONCLUSION:** The use of non-conservative therapeutic measures in addition to pharmacological measures has shown effectiveness in the healing process of UDP, by accelerating tissue repair and minimizing inflammatory effects. However, more studies are needed regarding the clinical management of ozone therapy in this repair, as well as its dose, risks and benefits.

285. **PULMONARY THROMBOEMBOLISM AND ITS THERAPEUTIC APPROACHES: A LITERATURE REVIEW**  
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**INTRODUCTION:** Pulmonary Thromboembolism (PTE) is the main cause of preventable deaths in hospital beds, its pathophysiology is linked to Virchow's Triad (endothelial injury, venous stasis and hypercoagulability). The clinical diagnosis is made using criteria based on the Wells Score, which takes into account the main risk factors for the development of the disease, classifying the patient as having a high, medium or low clinical probability of having PTE. The initial therapeutic approach aims to achieve clinical and hemodynamic stability of the patient with the use of anticoagulants, thrombolytics, embolectomy or vena cava filter. **METHODS:** This is a literature review on PTE and its therapeutic approaches, searched in the Scielo and Google Scholar databases with the descriptors "Thromboembolism" and "Pulmonary thromboembolism AND Major bleeding" with filter from 2019. **RESULTS:** Anticoagulants Injectables act by preventing clotting by binding to antithrombin III, they are considered safe with few predictable adverse effects. Oral anticoagulants act by inhibiting the synthesis of coagulation factors dependent on vitamin K and proteins C and S. Thrombolytics or fibrinolytics are drugs that dissolve thrombi by activating plasminogen, increasing the production of plasmin, which, despite being more effective than anticoagulants in the dissolution of thrombi, their use can induce intense bleeding, being more indicated for patients with hemodynamic instability and ventricular dysfunction. Embolectomy, emergency surgical removal of emboli, is indicated in massive PTE and/or contraindications to the use of drugs, and is linked to high patient mortality. The vena cava filter is a device implanted in the inferior vena cava by catheterization of the jugular or femoral vein, with the aim of preventing the passage of thrombi to the lungs, which despite the risks, is recommended for patients with a recurrent history of thrombosis. **CONCLUSION:** Because PTE presents different clinical forms, manifesting non-specific signs and symptoms, quick and efficient decision-making about the diagnosis and clinical approach to this condition is extremely important. Therefore, knowledge about epidemiology, pathophysiology, diagnosis, prophylaxis and treatment must be known by every medical professional, capable of evaluating the risks and benefits of each therapeutic approach and appropriately managing PTE.

286. **BEDSIDE ULTRASOUND FOR DIAGNOSING HEART DISEASE IN CRITICALLY ILL PATIENTS**  
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**INTRODUCTION:** Bedside ultrasound is an examination performed by a doctor to assess the condition of a disease, management, or guide treatment. It has an advantage in its practicality and speed, not requiring the exam room. Its use is widespread in the areas of emergency and intensive care medicine, in which it can explore various systems, including the cardiac. In this way, trained people are able to obtain images of the heart in order to identify changes that may favor the diagnosis. This review aims to analyze the use of bedside ultrasound for the diagnosis of heart disease in critically ill patients. **METHODS:** Narrative literature review of the PubMed and Scielo databases using the descriptors "Bedside ultrasound"/"Point-of-care ultrasound", "Cardiac disease"/"Cardiac disease" using the boolean operator "AND", selecting articles in Portuguese and English that addressed the topic in question between the years 2017 and 2022. **RESULTS:** Ultrasound is able to provide important clinical information about the presence of pericardial effusion/cardiac tamponade, left and right ventricular size and function, intravascular volume status, as well as aid in decision-making during cardiopulmonary resuscitation. It is not a diagnostic method, it only helps in identifying problems and can increase the accuracy of a cardiac examination. Thus, the subsequent diagnosis can be made by a specialist with the use of an echocardiography or even another complementary test. Some U.S. protocols assume that detailed evaluation of heart disease is not possible. In addition, there is a divergence as to whether or not specialist physicians perform such an examination. **CONCLUSION:** Bedside ultrasound is an instrument that assists in the examination of the patient, as well as all the processes of cardiac semiology already recommended by medicine. In this way, it is able to detect a limited number of critical cardiac conditions, which, associated with the clinical presentation by the patient, will culminate in the effective diagnosis made later by a specialist using echocardiography.

287. **USE OF AI AND THE EVOLUTION OF CARDIOVASCULAR INTERVENTIONS**

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**INTRODUCTION:** Cardiovascular diseases lead global morbidity and mortality statistics. In this scenario, technological advancement emerges as a vital ally, enhancing scientific progress in medical practice. Cardiology incorporates artificial intelligence (AI) in different ways, revolutionizing precision medicine, prognosis, cardiac image analysis and robotic medicine. **METHODS:** This is a descriptive review study. Scientific articles published between 2019 and 2023, found in Medline, PubMed, Scielo, and Google Scholar databases, were used for data collection. To search for articles, the descriptors were considered: AI and cardiology, artificial intelligence in medicine and AI in cardiovascular interventions. The selected material addressed the study's guiding question and aimed to recognize the relevance of AI in the context of cardiology. **RESULTS:** AI, especially in the context of machine learning, presents promising applications in cardiology, especially in coronary artery disease (CAD) and atrial fibrillation. AI improves the diagnosis of CAD, the identification and determination of the degree of plaque in the arteries, and the detection of stent restenosis, through the analysis of image exams. Optical Coherence Tomography (OCT) integrated with evaluation software, recently used in the management of heart diseases, allows the optimization of the reading of OCT images, with assessment of plaque morphology, dimensions of the stent and balloon, and the post-stent deployment result, enabling corrections when necessary. The implementation of AI in the medical scenario demonstrates the potential for assertive diagnoses and better treatment of patients with cardiovascular diseases, in addition to automating computer tasks, allowing more time for direct patient care. **CONCLUSION:** Therefore, advances in AI and technologies integrated into its use will have a positive impact on the management of coronary artery disease and structural heart disease, from better patient identification to a better prognosis and faster treatment planning. It is important to emphasize that advances in AI emerge as mechanisms to assist healthcare professionals, not replacing them in decisions made in the doctor-patient relationship.

288. **IRREGULAR USE OF PSYCHOTROPIC SUBSTANCES AMONG MEDICAL STUDENTS IN CONTEMPORARY TIMES**

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**INTRODUCTION:** The psychopathologization of contemporary society is evident, notably among university students, particularly those in the field of Medicine, as they represent a vulnerable group susceptible to psychological afflictions such as depression and anxiety. Consequently, there is a noticeable rise in the inappropriate use of psychotropic medications as a means to alleviate emotional distress that impairs the overall well-being of individuals. In this context, the present study aims to elucidate the reasons and effects of the increased improper consumption of psychotropics among medical students in the present day. **METHODS:** This is a structured integrative review based on publications from the SCIELO and PUBMED databases, verified in October 2023, using descriptors such as "Psychotropic drugs," "University students," "Medicine," and the Boolean operator "AND." Eight documents published between 2018 and 2023 were selected, following the inclusion criterion of youth psychosocial attention. **RESULTS:** It is pertinent to highlight that contemporary youth suffers psychologically due to social pressures demanding immediate success. Within this context, medical students resort to self-medication as an alternative to alleviate their psychological distress. The most prevalent psychiatric disorders among this group are depression and anxiety, and the commonly used medications include antidepressants (escitalopram and sertraline) and anxiolytics (clonazepam and alprazolam). Furthermore, psycho-stimulant drugs (methylphenidate) are also widely consumed by students aiming to enhance academic performance. However, the improper use of psychotropics can lead to negative side effects such as sedation, systemic disturbances, exacerbation of depression or anxiety, and chemical dependence. **CONCLUSION:** The psychological distress prevalent in contemporary society affects modern youth, especially medical students, who resort to self-medication (psychotropic drugs) as a means of escapism from reality. However, the consequences of irrational drug use are severe, both in the short and long term. Therefore, meticulous and enhanced psychosocial attention is crucial for this particular demographic.

289. **HPV VACCINATION IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** The human papillomavirus (HPV) is directly linked to the occurrence of cervical cancer, among others, with vaccination being its primary prevention strategy, provided free of charge by the Unified Health System (SUS). However, Brazil records low adherence to the complete vaccination schedule, posing a risk for the development of neoplasms. **METHODS:** This is a descriptive epidemiological study based on data about the Quadrivalent HPV vaccine and its coverage that are made available in the Information System of the National Immunization Program (SI-PNI), by the Information Technology Department of the Unified Health System (DATASUS), from 2019 to 2023. **RESULTS:** A total of 361,953 doses of the HPV vaccine were administered in the state of Maranhão, among females, during the sampling period, with particular emphasis on the year 2020 (92,247 doses administered). Regarding age groups, there is a pronounced decline in vaccine coverage inversely proportional to age increase, with the age group of girls aged 9 to 11 years showing the highest vaccine application (302,174 doses). Concerning the quantity of vaccines administered per dose, there was an 18% decrease from the first to the second dose. In males, 275,724 doses were administered, with the year 2019 standing out (73,393 doses), exhibiting a similar pattern to the female population in terms of declining coverage with increasing age. The highest number of doses was administered among boys aged 11 years (957,731 doses) when compared to other age groups. **CONCLUSION:** It is observed that the coverage of HPV vaccination still shows low adherence, especially in subsequent doses of the vaccine, which is concerning, as this is the most effective prevention strategy against the disease. The gender discrepancy in administered doses also deserves attention, given that the vaccine particularly protects women against neoplasms with high prevalence and mortality. Therefore, it is mandatory to develop actions that ensure the expansion of HPV vaccination coverage.

290. **CARDIAC FREQUENCY VARIATION IN ELDERLY INDIVIDUALS WITH ALTERED BMI DURING THE SIX-MINUTE WALK TEST**

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**INTRODUCTION:** The aging process of the cardiovascular system encompasses various structural and functional alterations with systemic impacts. In this context, heart rate (HR) serves as a pivotal predictor of cardiac function, as resting HR typically declines with advancing age. However, even during physical exertion, the heart's capacity to elevate HR may decrease, rendering it less adaptable to stressors. Simultaneously, altered body mass index (BMI) can exacerbate these changes due to increased oxygen demand by adipose tissue. Consequently, cardiovascular aging can significantly influence cardiac function, with obesity exacerbating the issue. Thus, this study aimed to identify HR variation during the six-minute walk test (6MWT) in elderly individuals with altered BMI. **METHOD:** Prior to data collection, all participants underwent informed consent procedures. The research protocol obtained approval from the Research Ethics Committee of the State University of Tocantins (CAAE: 63297222.3.0000.8023). An interview was conducted to ascertain inclusion and exclusion criteria. Subsequently, participants' resting HR was measured. They then completed a 6-minute walk between two cones placed 15 meters apart, with HR recorded every minute, totaling 6 measurements. **RESULTS:** Twelve elderly individuals aged 60 years or older were evaluated, including 2 males, with a mean age of 68.0±6.4 years. The mean HR of the volunteers was as follows: at rest (77.5±15.9 bpm); at the first minute (89.4±13.1 bpm); at the second minute (92.3±14.1 bpm); at the third minute (84.6±27.2 bpm); at the fourth minute (93.4±15.5 bpm); at the fifth minute (93.4±12.9 bpm); at the sixth minute (92.3±14.0 bpm). Notably, the study did not observe a significant HR variation. In certain instances, slight variations in HR amplitude at rest and during physical exercise may indicate autonomic nervous system alterations. **CONCLUSION:** Although substantial HR variation was not observed among elderly individuals, the variation appeared progressive. Additionally, the slight variation may have been influenced by individual selection of walking speed, with exertion considered submaximal. While this study contributes to understanding the topic, it underscores the need for further research.

**291. EPIDEMIOLOGICAL OVERVIEW OF ASTHMA HOSPITALIZATIONS IN A BRAZILIAN CITY, 2018 TO 2022**

Rafael Porto de Sá Vaz<sup>1</sup>, Ana Clara Tavares Dantas Nogueira<sup>1</sup>, Leticia de Almeida Moraes Weber<sup>1</sup>, Luan de Sousa Oliveira<sup>1</sup>, Rafaela Dias de Medeiros<sup>1</sup>, Pedro Lucas Baía da Paixão<sup>1</sup>

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**INTRODUCTION:** Asthma belongs to the group of respiratory diseases, causing chronic inflammation in the bronchi, leading to exacerbation periods, which can be triggered by secondary infections and their consequences, resulting in hospitalization of the affected patient. This study aims to analyze the epidemiological profile of hospitalizations and mortality rates among asthma hospitalizations in São Luís from 2018 to 2022. **METHODS:** A descriptive epidemiological study based on secondary data from the Hospital Morbidity System, available at the Department of Health Informatics of the Unified Health System, was conducted to assess the number of hospitalizations and hospital mortality rates due to asthma in São Luís from 2018 to 2022. Data were collected, tabulated, and analyzed using Microsoft Excel 2019. Parameters for analysis included year of processing, hospitalizations, deaths, and mortality rate. The study did not involve human subject research, thus ethical committee approval was waived. **RESULTS:** Between 2018 and 2022, there were 521 hospitalizations due to exacerbation of symptoms in asthmatic patients. Hospitalizations remained stable in 2018 and 2019, with 50 cases each year. However, in 2020, the year of the coronavirus pandemic, hospital morbidity decreased by 26%. In subsequent years, more than half of the hospitalizations during the analyzed period were recorded, with an increase of approximately 116% in 2021 and 237% in 2022. Regarding mortality, 20 deaths were recorded among the 521 hospitalizations, with more than half occurring in 2021 and 2022, totaling 12 deaths. Additionally, the highest mortality rate was 8.11% in 2020, the year when the pandemic began in Brazil. **CONCLUSION:** The significant decrease in hospitalizations in 2020 was likely due to the COVID-19 pandemic, which may have influenced underreporting rates. Furthermore, the significant increase in hospital morbidity and mortality rates between hospitalizations in 2021 and 2022 may also be related to the pandemic period, due to the increased number of respiratory tract infections caused by the virus, as well as post-infection sequelae. Additionally, there is evidence of decreased adherence among asthmatic patients due to social isolation and its consequences. Therefore, this social group requires greater healthcare assistance to reduce asthma morbidity and mortality in São Luís.

**292. EPIDEMIOLOGICAL OVERVIEW OF DEATHS FROM RHEUMATIC VALVE DISEASES IN THE NORTHWEST OVER 10 YEARS**

Lara Milena Santos Silva<sup>1</sup>, Rafaela Dias de Medeiros<sup>1</sup>, Luan de Sousa Oliveira<sup>1</sup>, Ana Clara Tavares Dantas Nogueira<sup>1</sup>, Benjamim Alves Pessoa Neto<sup>2</sup>, Lucas de Sousa Macedo<sup>2</sup>, Alice Marques Moreira Lima<sup>2</sup>.

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**INTRODUCTION:** Chronic rheumatic heart disease (RHD) is a late complication of rheumatic fever (RF), characterized by the immune response to streptococcal pharyngotonsillitis by Group A beta-hemolytic *Streptococcus* if not properly treated. This condition may lead to fibrosis and calcification of cardiac valves and represents the primary cause of morbidity and mortality in RF. Despite the declining mortality trend from RHD due to advances in antibiotic therapy and prophylaxis, the Northeast region still exhibits a significant number of deaths. Therefore, this study aims to delineate the epidemiological profile of mortality due to rheumatic valvular disease in the Northeast region over a period of 10 years. **METHODS:** This is a retrospective, descriptive-quantitative ecological study based on data collected from the Unified Health System's Hospital Information System (SIH/SUS), provided by the Department of Informatics of the Unified Health System (DATASUS). The variables analyzed include gender, age group, race/ethnicity, education level, region of the federation, and number of deaths, according to Chapter IX, codes I05-I08 of ICD-10, from 2011 to 2021 in the Northeast region. **RESULTS:** During the observed period, 19,385 deaths due to RHD were reported in Brazil, with 4,273 deaths in the Northeast region, ranking second (22.4%). There was a higher prevalence among females (61.1%), individuals of mixed race (59.2%), those aged over 50 years (45%), and those with no education or less than 3 years of schooling (31.6%). Regarding the chronological distribution, the highest mortality was observed in 2021 (11.4%) and 2020 (10.2%). Among the states, Bahia and Pernambuco (44.1%) exhibited the highest rates, while Piauí and Paraíba had the lowest death rates (0.06%). Regarding involvement of cardiac valves, the mitral valve was the most affected (54.5%), followed by lesions in multiple valves (33.3%), aortic valve (0.06%), and tricuspid valve (0.05%). **CONCLUSION:** Understanding the epidemiological variations and their relationship with socioeconomic and demographic factors is crucial for the development of public policies aimed at preventing, diagnosing, and providing appropriate treatment, thereby minimizing avoidable deaths from chronic rheumatic heart disease.

293. **EPIDEMIOLOGICAL VIEW OF CONDUCTION DISORDER AND CARDIAC ARRHYTHMIA IN MARANHÃO FROM 2012 TO 2022**

Mariana Clara Borges da Silva<sup>1</sup>, Luanna Stefanny Campos do Nascimento<sup>1</sup>, Myrelle Salgueiro Porto de Sá<sup>1</sup>, Antônia Márcia Dutra Rabelo<sup>1</sup>, João Henrique Xavier de Oliveira<sup>1</sup>, Alice Marques Moreira Lima<sup>2</sup>

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**INTRODUCTION:** The process of efficient cardiac contraction depends on the conduction of an action potential through the heart's electrical system. In this sense, in cases of Conduction Disorders and Cardiac Arrhythmias (TCACs) the heart rhythm is compromised, due to the lack of stimulation or its slowness, causing consequences such as angina, reduced cardiac output, and even sudden death. Therefore, this study seeks to analyze deaths from TCACs in the state of Maranhão between the years 2012 and 2022, due to the observation of the great deleterious impact of these pathologies. **METHODS:** This is a descriptive, quantitative and retrospective analysis, in which secondary data were collected from the SUS Hospital Information System (SIH/SUS), offered by the Department of Informatics of the Unified Health System (DATASUS). The mortality rate was calculated using the Tabwin@v.4.14 software. **RESULTS:** During the years 2012 to 2022, the mortality rate from TCACs in Maranhão was 8.49 per 100,000 inhabitants. 413 deaths were reported, with 2022 accounting for 23.24% of deaths, the highest incidence of the period, followed by 2021, with 22.28%, representing a trend of increasing deaths over time. Turning to the patient profile, males were the most impacted, with 219 deaths (53.03%). Regarding the age group, the most affected age group was 70 to 79 years old, with 110 records (26.63%), followed by 80 years old or more, with 100 records (24.21%). In the color/race characteristic, a failure in notification was observed, given that the factor "no information" had a higher count, compared to the indicators, being followed by the Brown color/race, with 124 cases (30.02%). Finally, the most impacted health macro-region was the North, with 60.77% of cases, with São Luís being the most impacted municipality (196 deaths), due to the greater concentration and admission of patients, as it has more resources. **CONCLUSION:** In short, the COVID-19 pandemic possibly influenced the cases of TCACs, given the large number of cases in 2021, due to the virus's power to increase inflammatory cytokines and hypoxia, which culminates in injury to myocytes, altering the depolarization process and repolarization of cardiac cells. Like this, the study of deaths from TCACs contributes to identifying the largest risk groups and the socioeconomic and demographic aspects that influence the illness process.

294. **EPIDEMIOLOGICAL OVERVIEW OF DEATHS FROM RHEUMATIC VALVE DISEASES IN THE NORTHWEST OVER 10 YEARS**

Lara Milena Santos Silva<sup>1</sup>, Rafaela Dias de Medeiros<sup>1</sup>, Luan de Sousa Oliveira<sup>1</sup>, Ana Clara Tavares Dantas Nogueira<sup>1</sup>, Benjamim Alves Pessoa Neto<sup>2</sup>, Lucas de Sousa Macedo<sup>2</sup>, Alice Marques Moreira Lima<sup>2</sup>.

<sup>1</sup>Universidade Estadual da Região Tocantina do Maranhão

<sup>2</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Chronic rheumatic heart disease (RHD) is a late complication of rheumatic fever (RF), characterized by the immune response to streptococcal pharyngotonsillitis by Group A beta-hemolytic Streptococcus if not properly treated. This condition may lead to fibrosis and calcification of cardiac valves and represents the primary cause of morbidity and mortality in RF. Despite the declining mortality trend from RHD due to advances in antibiotic therapy and prophylaxis, the Northeast region still exhibits a significant number of deaths. Therefore, this study aims to delineate the epidemiological profile of mortality due to rheumatic valvular disease in the Northeast region over a period of 10 years. **METHODS:** This is a retrospective, descriptive-quantitative ecological study based on data collected from the Unified Health System's Hospital Information System (SIH/SUS), provided by the Department of Informatics of the Unified Health System (DATASUS). The variables analyzed include gender, age group, race/ethnicity, education level, region of the federation, and number of deaths, according to Chapter IX, codes I05-I08 of ICD-10, from 2011 to 2021 in the Northeast region. **RESULTS:** During the observed period, 19,385 deaths due to RHD were reported in Brazil, with 4,273 deaths in the Northeast region, ranking second (22.4%). There was a higher prevalence among females (61.1%), individuals of mixed race (59.2%), those aged over 50 years (45%), and those with no education or less than 3 years of schooling (31.6%). Regarding the chronological distribution, the highest mortality was observed in 2021 (11.4%) and 2020 (10.2%). Among the states, Bahia and Pernambuco (44.1%) exhibited the highest rates, while Piauí and Paraíba had the lowest death rates (0.06%). Regarding involvement of cardiac valves, the mitral valve was the most affected (54.5%), followed by lesions in multiple valves (33.3%), aortic valve (0.06%), and tricuspid valve (0.05%). **CONCLUSION:** Understanding the epidemiological variations and their relationship with socioeconomic and demographic factors is crucial for the development of public policies aimed at preventing, diagnosing, and providing appropriate treatment, thereby minimizing avoidable deaths from chronic rheumatic heart disease.

**295. ANALYSIS OF HOSPITAL ADMISSIONS FOR SEPSIS IN THE STATE OF MARANHÃO**

Marcos Vinicius da Costa Vilela<sup>1</sup>, Fernando Viana de Azevedo Naves<sup>1</sup>, José Rodrigues de Moraes Neto<sup>1</sup>, Arthur Abreu Pinheiro<sup>1</sup>, Nicolás Louzada Borchardt Gomes<sup>1</sup>  
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**INTRODUCTION:** Abortion is the termination of a pregnancy, which can be spontaneous or induced. Spontaneous abortion occurs when the loss of the fetus is due to natural causes, without any external intervention or intervention by the pregnant woman herself and, in order to fit into this classification, it must occur between the 20th and 22nd week at the latest. It is common for this type of abortion to result in hospitalizations, which is why this study analyzed hospital data in order to understand the prevalence, demographic characteristics and trends surrounding these hospitalizations in the Northeast region. **METHOD:** This was a descriptive epidemiological study, quantitative in nature and cross-sectional in approach. The data used was collected through the Hospital Information System (SIH/DATASUS) regarding hospitalizations in the ICD-10 category "spontaneous abortion" in the Northeast region, between 2013 and 2022. The variables analyzed included the number of hospitalizations, age group, color/race, total value and average value per hospitalization. **RESULTS:** In the period analyzed, there were 36,844 hospitalizations due to miscarriage in the Northeast, the second largest region in terms of population. This figure represents 40% of the total number of cases of the same cause in Brazil. The most affected age group was between 20 and 29 years old (n=159168). With regard to the color/race variable, there was a great disparity, with the brown population being the most affected (n=194181) and the indigenous population the least affected (n=557). The state of Bahia had the highest number of hospitalizations (n=90793), while Piauí had the lowest number (n=14724). The highest number of hospitalizations was recorded in 2014 (n=41089) and the lowest in 2022 (n=28332), showing a downward trend over the years. **CONCLUSION:** There is a significant burden of hospitalizations due to miscarriage in the Northeast region of Brazil, representing a significant public health challenge. The majority of hospitalizations occur in the state of Bahia, in the 20-29 age group and among the brown population. Although there is a downward trend in the number of hospitalizations over the period analyzed, it is essential to continue monitoring and developing health policies aimed at preventing miscarriage and supporting women who go through this situation, and this study is crucial for guiding these practices.

**296. EPIDEMIOLOGY OF RHEUMATIC FEVER IN MARANHÃO: ANALYSIS OF THE LAST 5 YEARS**

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**INTRODUCTION:** Rheumatic fever (RF) is an autoimmune complication of a pharyngotonsillitis caused by group A beta-hemolytic streptococcus (*Streptococcus pyogenes*). It is more prevalent in the pediatric population, and its incidence can reach approximately 471 thousand new cases per year. Although most symptoms can be resolved with proper medical care, valve damage, known as rheumatic heart disease (RHD), may remain. This is an important factor in morbidity and mortality from RF. The Brazilian Institute of Geography and Statistics (IBGE) reports that Brazil has approximately 30,000 new cases of RF per year. Given the limited availability of epidemiological data on RF in Brazil, this study aims to enhance the existing Brazilian dataset, while also analysing the current situation in the state of Maranhão on these diseases. **METHODS:** an epidemiological, cross-sectional, time series study was carried out, with data from DATASUS, Ministry of Health, from June 2018 to May 2023. The following data were collected: number of hospitalizations for rheumatic fever; mortality from rheumatic fever; hospitalizations and deaths by sex; hospitalizations and deaths based on skin color, in the state of Maranhão. In addition, the absolute numbers of national hospitalizations and deaths were analyzed for the purpose of comparing results. **RESULTS:** In the period analyzed, 494 hospitalizations for rheumatic fever were carried out in the state of Maranhão. The year with the highest number of hospitalizations for RF was 2019 (n=134). The most affected sex was female (n=359). Regarding skin color, the number of hospitalizations was higher among mixed-race people (n=279). Analyzing the number of deaths, a total of 14 were documented in the established period. The highest mortality rate occurred in 2022 (n=4 deaths). Regarding mortality in relation to skin color, the number of deaths was higher among white people (n=6). Nationally, the number of hospitalizations and deaths were 7911 and 271, respectively. **CONCLUSION:** The number of hospitalizations in Maranhão due to RF represents 6% of the Brazilian total, and the number of deaths represents 5% of the national number. Furthermore, the number of female deaths represents 78% of the total in Maranhão in the period. The present study presents data only from hospitalized individuals, which may underestimate the real situation in Maranhão in terms of RF. These data raise concerns regarding public spending and inequality in the country.



297. **EPIDEMIOLOGY OF BENIGN BREAST NEOPLASM BETWEEN 2019 AND 2023 IN THE STATE OF MARANHÃO**

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Câmera, Bruna Leão Lemos<sup>1</sup>;  
Santos, Alynne Bayma Dos<sup>1</sup>; Castro, Isabelly Soares<sup>1</sup>; Krogh,  
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**INTRODUCTION:** Benign breast pathology encompasses a spectrum of alterations in the mammary gland, involving a diverse group of lesions. These lesions are common and can manifest clinically as palpable lumps or solely as changes in imaging tests. It is crucial to rule out malignant breast lesions since breast cancer is the most prevalent malignancy in women in Western countries. With the advent of mammography, ultrasound, magnetic resonance imaging, and needle biopsies, monitoring benign lesions without the need for surgery becomes possible in the vast majority of cases. In this perspective, the objective of the present study was to analyze the epidemiological profile of benign breast neoplasms in Maranhão between the years 2019 and 2023. **METHODS:** This is an epidemiological, descriptive, time-series study (July 2019 to June 2023), utilizing secondary data extracted from DATASUS. The variables investigated included health macro-region, race, age group, gender, year of diagnosis, and nature of care. **RESULTS:** In the state of Maranhão, a total of 453 hospitalizations due to benign breast neoplasms were observed, with 83.6% occurring in the northern macro-region. The year 2022 represented the peak of hospitalizations, with 115 cases, accounting for 25.4% of the total. Notably, 419 of these hospitalizations were elective. The most affected age group was 40 to 49 years, with 112 hospitalizations. The majority of patients who declared their race were of mixed race. Of the hospitalizations, 95.3% of patients were women. The total cost of hospitalizations was approximately 381,000 Brazilian Reals, with 2021 registering the highest expenditure. On average, patients spent about 1.4 days hospitalized, totaling 638 days of hospitalization due to this neoplasm. It is important to emphasize that there were no recorded deaths during the analyzed period, highlighting the benign nature of this condition. **CONCLUSION:** Based on the presented data, the incidence of benign breast neoplasms is noteworthy in the health panorama of Maranhão, resulting in 453 hospitalizations during the period from July 2019 to June 2023. Thus, the high frequency of cases, particularly in women aged 40 to 49, underscores the importance of a comprehensive and efficient healthcare service to achieve early diagnosis, minimize the negative impacts of the disease on patients' quality of life, and establish appropriate monitoring and treatment.

298. **EPIDEMIOLOGY OF BREAST MALIGNANT NEOPLASM IN THE STATE OF MARANHÃO IN THE PERIOD OF 2020-2023**

Yasmin Andrade Sampaio<sup>1</sup>, Jouwsen Henrieth Reis Andrade Nascimento<sup>1</sup>, Kellen De Jesus Farias Da Luz<sup>1</sup>, Laysanne Silva Oliveira<sup>1</sup>, Isabelly Soares Castro<sup>1</sup>, João Pedro Chaves Saboia<sup>1</sup>, Erika Krogh<sup>1</sup>

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**INTRODUCTION:** Malignant breast neoplasm is a heterogeneous group of diseases with distinct behaviors, characterized by the rapid proliferation of abnormal breast cells, forming tumors and invading or not adjacent and/or distant tissues. In Brazil, it is the most common neoplasm in women, second only to non-melanoma skin cancer. Furthermore, it deserves attention due to its major negative impact on patients' quality of life and functionality. The aim is therefore to describe the epidemiological panorama of malignant breast neoplasms in Maranhão (MA). **METHODS:** This is a descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The study population consisted of cases of hospital admissions in the SUS of women with malignant breast neoplasm in the state of Maranhão, reported between June 2020 and June 2023. **RESULTS:** In the period from June 2020 to June 2023, MA had a total of 3,336 hospitalizations for malignant neoplasms of the breast. The most affected age group was 50-59 years old, with 965 cases, while the year with the highest number was 2021 (175). There were also 2,730 elective hospitalizations and 605 emergency hospitalizations. Furthermore, among the macro-regions, the North had the highest number of hospitalizations, 2,139, with 275 deaths, followed by the South, 669, with 82 deaths, while the East had the lowest number, 527, with 50 deaths. This amounted to 407 deaths, 0.3% in the 50-59 age group; 0.23% in the 40-49 age group; 0.21% in the 60-69 age group; and the lowest rate, 0.01% in the 20-29 age group. In this context, 2022 stands out with 0.36% of deaths, followed by 2021 with 0.29%. Brown women accounted for 0.7 percent of this total, those with no information 0.17 percent and black women 0.05 percent. They required 11,724 days of hospitalization, an average of 3.5 days of stay, generating a total cost of R\$7,683,766.13 to the public coffers. **CONCLUSION:** The analysis showed the impact of breast neoplasms in MA, especially in the North macro-region, where the mortality rate was higher. In addition, the 50-59 age group had a higher incidence, with 2022 having the highest number of deaths and hospitalizations. In this way, the study served to elucidate the epidemiological panorama of this disease, which shows the complexity of the issue, and reiterates the importance of seeking to expand and improve public health policies in MA to reduce the incidence of this neoplasm in the state.

**299. EPIDEMIOLOGY OF IMMUNODEFICIENCY SYNDROME ACQUIRED IN BRAZIL IN THE LAST TEN YEARS**

Pedro Henrique Delfim Pessoa<sup>1</sup>, Brunna Araújo dos Santos<sup>1</sup>, Stephanie Freire Soares de Farias<sup>1</sup>, Caio de Brito Matos<sup>1</sup>, Adeany Yasmim Morgado Reis<sup>1</sup>, Lucas Guilherme Macedo Guterres<sup>1</sup>

<sup>1</sup>Universidade Federal do Maranhão - UFMA Campus Pinheiro

**INTRODUCTION:** Acquired Immune Deficiency Syndrome (AIDS) is a chronic disease, whose symptoms can lead to severe weakness, significantly compromising the quality of life of the sufferer. In untreated contexts, it can lead to reduced immunity and even death. Despite the notable advance in the national epidemiological scenario regarding the disease, this condition still represents an important challenge for the country's public health. Therefore, the main objective of this study is to verify and compare the incidence of AIDS among Brazilian macro-regions between the years 2013 and 2022. **METHODS:** This is an epidemiological, descriptive and retrospective study. Furthermore, a systematic search was carried out on the DATASUS portal, in a specific segment for the epidemiological coverage of AIDS - with the results subdivided by columns in relation to the regions of the country -, in addition to the IBGE, for demographic consultation. **RESULTS:** The region with the highest incidence of AIDS in the selected period was the Southeast, with an absolute number of new cases of 83,171, which represents a rate of 0.12%, the lowest observed. From 2021 to 2022 there was a 64.16% reduction in the diagnosis of new cases in the country as a whole, from 16,889 to 6,052, this being the lowest incidence observed. The North region presented 22,500 new cases in the period mentioned, which denotes a rate of 0.18%. The South region produced 47,737 new cases, representing a rate of 0.19%, the highest recorded. The Central West region reported 16,316 new cases, the lowest incidence observed, with a rate of 0.14%. The year in which the most new cases of AIDS were reported in Brazil, among the period in question, was 2013, with 32,445 occurrences. The only increase in the number of new cases investigated in Brazil, when analyzed in subsequent years, was from 2020 to 2021, 15,854 in the first and 16,889 in the second, which represents an increase of 6.5%. The total number of cases for the ten-year period, considering the national unit, was 220,393. **CONCLUSION:** AIDS is a condition with important pathological potential, whose therapeutic neglect means a poor prognosis for the patient with it. However, the advancement of medical science and public health policies has provided a scenario in which the containment of new cases is a reality, something that can be verified in the statistics expressed in the databases used for the different regions of the country.

**300. EPIDEMIOLOGY OF TUBERCULOSIS IN ALCOHOLIC PATIENTS IN MARANHÃO FROM 2018 TO 2022**

Caio de Brito Matos<sup>1</sup>, Stephanie Freire Soares de Farias<sup>1</sup>, Pedro Henrique Delfim Pessoa<sup>1</sup>, Brunna Araújo dos Santos<sup>1</sup>, André Aquim Salgado Prazeres Picanço<sup>1</sup>, Adeany Yasmim Morgado Reis<sup>1</sup>, Sueli de Souza Costa<sup>2</sup>

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**INTRODUCTION:** Tuberculosis (TB) is a disease of bacterial origin, caused by *Mycobacterium tuberculosis*, which has permeated society for decades with high rates of complications, mainly pulmonary. Alcohol abuse, concomitant with TB, increases the risks related to the disease, either by increasing the aggression of the bacillus in the patient's body or by socioeconomic factors that interfere with the improvement of the disease. For this reason, the study aims to evaluate the epidemiological profile of tuberculosis in alcoholic patients, over a period of 5 years, in Maranhão. **METHODS:** This is a cross-sectional and descriptive study of patients diagnosed with tuberculosis associated with alcoholism in the state of Maranhão, in which data obtained through the Sistema de Informação de Agravos de Notificação (SINAN), made available by the platform of the Departamento de Informática do Sistema Único de Saúde (DATASUS), in the period from 2018 to 2022. The variables included in the study involve the age range from 15 years of age, race, sex and education. **RESULTS:** In the period from 2018 to 2022, in Maranhão, 2752 cases of patients with alcohol dependence who developed TB were reported, with 2022, with 664 cases, being the year with the highest incidence (24%). Regarding the age group, 790 new cases were confirmed in adults between 30 and 39 years old (29%). When it comes to race, self-declared brown people were those most affected by the disease, since the population is mostly mixed race, with 1953 new cases in this period (71%). Male patients are the most affected, with an incidence of 2323 cases (84%), with the influence of education also being noted, in which 2065 patients (75%) did not complete basic education. **CONCLUSION:** Alcoholic patients, aged 30-39, self-declared mixed race, male and who have not completed basic education are more susceptible to acquiring TB. Thus, the study shows the social group vulnerable to this association of illnesses, making it possible to target public policies capable of changing this scenario in Maranhão.

**301. EPIDEMIOLOGY OF PATIENTS WITH CHRONIC HEART FAILURE IN A UNIVERSITY HOSPITAL**

Thamires Nayane Gomes De Santana<sup>1</sup>, João Felipe Serra Melo<sup>1</sup>, Francisco De Souza Faria<sup>1</sup>, Rayanne Dutra Gonçalves<sup>1</sup>, Anna Karoliny Freitas De Souza<sup>1</sup>, Surama Do Carmo Souza Da Silva<sup>1</sup>, José Albuquerque De Figueiredo Neto<sup>1</sup>

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**INTRODUCTION:** Endemic diseases are a central concern for public health. In the state of Maranhão, epidemiological data shows some infectious and parasitic diseases such as tuberculosis, leishmaniasis, leprosy, Chagas disease, and some arboviruses and helminthiasis as the main endemic diseases of the state. The occurrence of these diseases is associated with socioeconomic characteristics and may influence the cause or exacerbation of chronic diseases, such as chronic heart failure (CHF). In this context, the present study aims to analyze the epidemiological profile of patients diagnosed with CHF in a university hospital in Maranhão. **METHOD:** This is a cross-sectional observational study with descriptive and qualitative analysis. Patient inclusion occurred from July 2021 to July 2023. Patients diagnosed with chronic HF, with left ventricular ejection fraction (LVEF)  $\leq$  49%, and aged 18 years or older were included in the study (CAAE:25756919.9.2004.5086). Statistical analyses were obtained from calculations of mean and relative to absolute values. **RESULTS:** With a sample of 165 patients, it was found that in relation to socioeconomic characteristics, 113 (68.7%) were male, with a mean age of 57.8 years. In epidemiology, 10.3% had Chikungunya (n=17), 7.8% Trachoma (n=13), 3.6% Chagas disease (n=6), 3.7% Dengue (n=5), 2.2% Helminthiasis (n=3), Scabies (n=3), Leprosy (n=3), and Zika (n=3). Regarding the environment, the majority reside in urban areas (79.4%, n=131), have basic sanitation (68.9%, n=98), and have access to drinking water (94.5%, n=156). **CONCLUSION:** The results revealed a significant incidence of various diseases, with rates of Chikungunya, Trachoma, Chagas disease, dengue, Helminthiasis, Scabies, Leprosy, and Zika among participants. These diseases have the potential to predispose individuals to chronic diseases and trigger complications, particularly CHF. Regarding environmental factors, most patients have access to basic sanitation services and live in urban areas, but this may be more related to access to healthcare services than to the development of the disease. Therefore, delineating this profile becomes crucial in implementing policies aimed at the action of epidemiological surveillance and public health practices to prevent and control CHF in Maranhão.

**302. EPIDEMIOLOGY OF DEATHS FROM MENINGITIS IN CHILDREN UNDER 1 YEAR OF AGE IN MARANHÃO FROM 2013 TO 2022**

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**INTRODUCTION:** Meningitis is an inflammation involving the meninges -brain membranes- and the cerebrospinal fluid (CSF) in response to an aggressive agent. Such inflammation is considered a public health problem due to the significant morbidity and mortality it causes, which can result in neurological sequelae and death, especially in the pediatric age group. Therefore, the present study aims to analyze the number of deaths from meningitis in children under 1 year of age in the State of Maranhão. **METHODS:** This is an epidemiological study of cases of death due to meningitis in patients under 1 year of age in Maranhão from 2013 to 2022, through secondary data collected in the Notifiable Diseases Information System (SINAN/DATASUS), which were tabulated in EXCEL and statistically analyzed. **RESULTS:** In the period from 2013 to 2022, 73 cases of death from meningitis in children under 1 year old were recorded. In the 2013 - 2014 biennium, the highest number of notifications related to deaths in the age group due to inflammation of the meninges occurred, corresponding to 29.4% of total notifications in the last 10 years (F= 20). In the period from 2015 to 2018, a drop in cases was recorded, resulting in the 2017 - 2018 biennium, the lowest number of deaths in the last 10 years, corresponding to 9.2% of total notifications (F= 6). However, in the 2019 - 2020 biennium there was a new increase in occurrence, recording an increase of 266.66% of cases (F= 16) when compared to data from 2017 - 2018 (biennium with the lowest occurrence); with a slight reduction in notifications in 2021 - 2022 with registration corresponding to 23.1% of cases (F= 12). **CONCLUSION:** The study revealed that in contrast to the downward trend in deaths registered in the period from 2015 to 2018, there was a significant increase in notifications between 2019 and 2020. During the period of increased notifications, 16 new cases were recorded, corresponding to 25.4% of the total of notifications from the period under study, therefore, it is possible to infer a return to the rates analyzed in the 2017 - 2018 biennium (lower number of registered deaths). The recognition of the return of a high incidence of deaths due to meningitis in children under 1 year of age highlights the impact of vaccination coverage on the number of notifications of deaths due to meningitis, as well as the need to plan actions aimed at prevention and combat, especially in the age group analyzed.

**303. EPIGLOTTITE EM PACIENTES PEDIÁTRICOS: IMPACTOS DO DIAGNÓSTICO PRECOZE NA MORTALIDADE.**

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**INTRODUCTION:** Epiglottitis, inflammation of the epiglottis, is considered a pediatric emergency, considering the high risk of death. In this sense, early diagnosis becomes a necessity, given its repercussions on the prognosis of patients. Thus, the objective of this study is to analyze the impacts of early diagnosis of epiglottitis on the reduction of mortality in children. **METHODS:** This is a narrative review, which used the descriptors "epiglottitis", "pediatrics", "early diagnosis" and "mortality", in three databases (Virtual Health Library, PubMed, and Scielo) in October 2023. Articles written or not in Portuguese, published between 2018 and 2023, were included. In all, 21 articles were found, of which 6 were in accordance with the objectives of this study. **RESULTS:** The articles pointed out the importance of early diagnosis. Thus, knowledge about the signs and symptoms - dyspnea, dysphagia, high fever, inspiratory stridor, sialorrhea, signs of toxemia and cyanosis - of epiglottitis in pediatric patients was considered of paramount relevance to the agility of medical management and reduction in mortality. Thus, with regard to complementary exams, conventional radiography proved to be an auxiliary tool in the diagnosis, but the materials list that the primacy of the physical examination, and the correlation with the history, to the early diagnosis. In this sense, the greater the efficiency of diagnosis, the lower the probability of death. Attention is also paid to the etiological origin - non-infectious and infectious causes - in order to understand the cause. In addition, airway management is highlighted as crucial to the maintenance of the patient's vital signs, in addition to the medical skill in conducting such activity, through orotracheal intubation or another access route. Finally, since epiglottitis is a rare disease, early diagnosis, technical skill, and effective management are essential to reduce mortality. **CONCLUSION:** Therefore, knowledge of signs and symptoms, detailed physical examination, and correct airway management are essential for early diagnosis and mortality reduction in pediatric patients with epiglottitis. In addition, radiography also has value in the safety of professionals in decision-making, as it represents an assertive complementary exam.

**304. ASYMPTOMATIC CAROTID STENOSIS: COGNITIVE IMPACT RELATED TO REVASCULARIZATION**

Letícia Vitória de Souza Rodrigues<sup>1</sup>, Raquel de Sousa Lima<sup>1</sup>, Myrella Evelyn Nunes Turbano<sup>1</sup>, Pedro Henrique Fréres Holanda<sup>1</sup>, Vitória Pereira da Costa Silva<sup>1</sup>, Monalyza Pontes Carneiro<sup>1</sup>, Robertha Hallana Rodrigues Farias<sup>1</sup>

<sup>1</sup>Instituto de Educação Superior do Vale do Parnaíba (IESVAP)

**INTRODUCTION:** Carotid artery stenosis (CAS) is a condition in which this artery is blocked by atherosclerotic plaques, increasing the risk of stroke and other cardiovascular events. CAS is considered symptomatic when symptoms occur in the previous 6 months, or asymptomatic when no previous symptoms are identified. When asymptomatic, it can be linked to cognitive dysfunction related to cerebral hypoperfusion. Management includes medical treatment and invasive revascularization, such as carotid endarterectomy or carotid angioplasty. Indications for revascularization in asymptomatic CAS are poorly understood, associated with a smaller number of available evidence. Therefore, the study aims to evaluate the cognitive implications of carotid revascularization in asymptomatic patients. **METHODS:** The research is an integrative literature review, based on bibliographic sources, with a qualitative and retrospective approach, based on studies between the years 2011 and 2023 extracted from the databases: PUBMED, EMBASE and Cochrane, using the health descriptors "executive function", "carotid stenosis" and "management" and Boolean operators "AND" and "OR". **RESULTS:** The studies have shown that improvement in cerebral perfusion parameters through revascularization led to cognitive improvement in patients with asymptomatic carotid artery stenosis. Among the surgical modalities, some studies highlighted carotid endarterectomy with better outcomes, while carotid angioplasty was associated with a higher risk of cognitive dysfunction. Simultaneously, improvement in executive function was reported with revascularization compared to medical treatment. These findings were supported by comparing cognitive tests before and after carotid revascularization, by analyzing biomarkers, and by imaging examinations evaluating cerebral perfusion. Some studies also reported a decrease in the incidence of stroke. **CONCLUSION:** Despite surgical revascularization methods for asymptomatic carotid artery stenosis indicating an improvement in cognitive capacity, there are still controversies in the literature regarding the use of surgical techniques over medical treatment. However, other studies support that both are associated with improvement in cognitive and executive abilities.

305. **STUDY OF THE TOXICITY AND CARDIOVASCULAR ACTION OF FRIDERICIA PLATYPHYLLA IN RATS**

Mateus Balbino Barbosa de Carvalho<sup>1</sup>, Rachel Melo Ribeiro<sup>1</sup>, Kellen de Jesus Farias da Luz<sup>1</sup>, Ludmila Tavares dos Santos Silva<sup>1</sup>, Nicolas Melo de Cerqueira Salgado<sup>1</sup>, Isabela Vitória de Araújo Costa Melo<sup>1</sup>, Arthur Juan Oliveira Moreira<sup>1</sup>  
<sup>1</sup>Universidade Federal do Maranhão

**INTRODUCTION:** Pharmacological therapy for cardiovascular diseases, such as hypertension, is linked to significant side effects. Thus, there is interest in finding more therapeutic options, with greater tolerance of these effects by the patient. Relevant alternatives are bioprospecting studies with plant species. This study aims to obtain the hydroethanolic extract of *Fridericia platyphylla* (HEFP) and evaluate its toxicity and cardiovascular effects in rats. **METHODS:** Adult, normotensive *Rattus norvegicus* rats of the Wistar strain were used. The toxicity study was carried out with females weighing 150 to 200g, divided into Control groups, using saline solution, and Treated groups, administered HEFP 2000 mg/kg, observing piloerection, ocular reflex, behavioral patterns and parameters of body weight, excreta, water and food intake for 14 days. The pharmacological activity was carried out using males weighing 200 to 250g, divided into Control and Treated groups, the latter being given HEFP 1000mg/kg in a single dose for acute treatment, in which the rats were anaesthetized after 1 hour and Systolic Blood Pressure (SBP), Diastolic Blood Pressure (DBP) and Mean Blood Pressure (MBP) were obtained, as well as Heart Rate (HR). The study was approved by the Animal Research Ethics Committee under No. 23115.013098/2020-73. **RESULTS:** The toxicity study of the animals treated with HEFP 2000 mg/kg remained normal when compared to the Control group and did not cause mortality in any of the animals, suggesting a Lethal Dose 50 higher than this dose, in addition to being non-toxic orally. As for the hemodynamic parameters of the animals treated with HEFP 1000 mg/kg, it can be seen that at this dose the extract can promote significant hemodynamic changes in DBP, when compared to the Control Group, but still at normal levels for what is considered in rats. There were no significant differences in the animals' HR or in SBP and MBP, which were within normal limits. This suggests that, in this acute treatment, HEFP showed cardiovascular safety. **CONCLUSION:** This study has produced a pharmaceutical formulation of HEFP for oral use which is safe in terms of toxicity and hemodynamic parameters. In this way, this study contributes to the bioprospecting of this plant species, which has a high potential that could be validated and used in the treatment of conditions that affect human health.

306. **STUDY ON THE USE OF CANNABIDIOL IN THE TREATMENT OF AUTISM: CASE REPORT**

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<sup>1</sup>Universidade Ceuma

**INTRODUCTION:** Cannabis Sativa is one of the variations of Cannabis, an angiosperm with female and male flowers with great therapeutic potential, given the extraction of one of its compounds, cannabidiol (CBD) for the treatment of various disorders and diseases that affect the quality of life of affected individuals. In the case of Autism Spectrum Disorder, the treatment is individualized with the aim of acting on the manifestation of symptoms, accompanied by the daily use of the usual medication, leading to progression in hyperactivity, self-injurious behaviour and anxiety. **CASE DESCRIPTION:** Patient, 11 years old, male, with grade 2 Autistic Spectrum Disorder. The diagnosis came at the age of 5, after which he began treatment with controlled medication and neurological monitoring. He used medication based on CBD/THC (Tetrahydrocannabinol), components of Cannabis, with medical support for 2 years. He currently uses 4 drops every 12 hours of the medication manufactured by the company Abrace, together with 15mg aristas. The patient's mother reports that he uses the blue bottle (it has a higher concentration of CBD than THC), based on the suitability and progression of symptoms observed by the neurologist. In the last year, he has seen an extremely significant improvement in the degree of interaction with his schoolmates, as well as in the hyperactivity, cognitive aspects of speech, concentration and anxiety attacks. That year she began the literacy process and saw progress in her reading and ability to concentrate during lessons and questions with teachers. She claims that during the drug therapy with Cannabidiol, she noticed a significant improvement in her quality of life. **CONCLUSION:** The use of CBD has achieved positive results as a drug therapy in addition to specific medications. The patients did not experience any side effects, but rather an improvement in the symptoms that hindered their routine. Acceptance of the treatment is good, however, because it is marketed exclusively by ANVISA, as well as being authorized, the price of the product is high and not everyone is able to use it long-term because of the financial demands.

**307. EPIDEMIOLOGICAL STUDY OF ARBOVIROSES IN BAIXADA MARANHENSE FROM 2018 TO 2022**

Paulo Victor Nascimento Silva<sup>1</sup>, Douglas da Costa Siqueira<sup>1</sup>, Lissandro Marlon Castro Santos<sup>1</sup>, Suzana Patricia Santos Rodrigues<sup>1</sup>, Carolinne Sousa Dourado<sup>1</sup>, Raphael de Matos Lima<sup>1</sup>, Robson Emmanuel Silva Sampaio<sup>1</sup>

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**INTRODUCTION:** Arboviruses are diseases caused by so-called arboviruses. Its main means of transmission is *Aedes aegypti*, which can transmit the Zika virus, chikungunya fever and dengue fever. In 2023, until the end of April, there was a 30% increase in the number of probable dengue cases compared to the same period in 2022 throughout Brazil. Occurrences rose from 690.8 thousand cases last year to 899.5 thousand this year, with 333 confirmed deaths (Ministry of Health, 2023). In this sense, the study aims to analyze the increase in cases of arbovirus in Baixada Maranhense (BM). **METHODS:** Epidemiological study of arbovirus in BM from 2018 to 2022. The online platforms of the Ministry of Health of the Department of Informatics of the Unified Health System (DATASUS) were used through the Notifiable Diseases Information System (SINAN). Data related to the arboviruses dengue, chikungunya and Zika were stratified into: race/color, age group, education and sex. **RESULTS:** The incidence rate of arbovirus cases in BM was (592 cases) of arbovirus from 2018 to 2022, with emphasis on 2022, with 226 cases. The most prominent disease is dengue with 494 cases and chikungunya with 201 cases. In the age group, there was a higher prevalence between 20-39 (205 cases) and between 40-59 (161 cases). Regarding race/color, there was greater emphasis on self-declared mixed race (464 cases), followed by white (64 cases) and black (55 cases). Regarding education, there was a predominance of complete secondary education (105 cases) and incomplete 4th and 8th grades of elementary school, with 66 cases and 63 cases, respectively; however, there are 171 white/ignored cases. Furthermore, with regard to sex, there is a preponderance of females, with 340 cases. **CONCLUSION:** The study demonstrated that arbovirus is more affected by brown race/color, between 20-39 years old, female and with complete MS, in the period between 2018 and 2022. Furthermore, what refers to race/color only intensifies data already collected by national sources, such as the Brazilian Institute of Geography and Statistics. This analysis highlights the importance of increasing actions in public health, through dissemination in communication vehicles, as well as actions by health agents with other professionals. In addition, there are actions aimed at the environment, through urban cleaning, with the aim of reducing the incidence of transmitting mosquitoes and reducing the harm.

**308. BARRETT'S ESOPHAGUS: A COMPLICATION OF GASTROESOPHAGEAL REFLUX**

Priscilla Malena Albuquerque de Souza<sup>1</sup>, Gu'eren Hadassa Alves Silva<sup>1</sup>, Pedro Henrique de Oliveira Cavalcante<sup>1</sup>, Juliana de Oliveira Lima<sup>1</sup>, Daniel Alves Alvarenga<sup>1</sup>, Kerolayne de Melo Nogueira<sup>1</sup>

<sup>1</sup>Faculdade Pitágoras de Bacabal

**INTRODUCTION:** Gastroesophageal reflux disease (GERD) is caused by malfunction of the lower esophageal sphincter. This pathology is a consequence of the return of gastric contents into the esophagus or into the oral cavities and lungs. Furthermore, the chronicity of GERD is the main risk factor for triggering complications such as Barrett's esophagus (BE) and is associated with cases of esophageal adenocarcinoma (EA). The purpose of this research is to understand GERD, Barrett's pathology and the consequences in the population. **METHODS:** This is an integrative literature review, in which articles published on the SciELO, PubMed, Google Scholar and LILACS platforms were used. The research was carried out in September 2023 with works published in the last five years. The literature found was analyzed, interpreted and summarized for a general understanding of the subject covered. **RESULTS:** Long-term GERD may favor the replacement of the stratified squamous epithelium of the esophagus by specialized columnar epithelium of the intestinal type, due to the high aggression of the esophageal mucosa by gastrointestinal reflux. This has gained relevance in Western medicine due to its association with cases of AE, becoming the fifth leading cause of cancer-related death worldwide. Furthermore, obesity is recognized as a major risk factor for the development of EB, since the high body mass index favors high degrees of obesity and increases the chance of developing this pathology, which has intensified in the population due to poor health conditions. lifestyle habits, enhancing the emergence of GERD as well as EB. Studies using *in silico* models, using biomarkers, proved to be successful, as using this tool and therapeutic strategies reduced the number of deaths linked to EB. This advance was due to techniques using genes such as genomic sequencing, which, using DNA, makes it possible to identify the risks of GERD and EB in a sick individual. **CONCLUSION:** Therefore, it is important to highlight that gastroesophageal reflux disease culminates in Barrett's esophagus, which is a major risk factor for the development of esophageal adenocarcinoma. Therefore, this pathology requires a rapid diagnosis, since Barrett's esophagus has the potential to progress to esophageal adenocarcinoma and is therefore one of the main reasons for death from cancer in the world.

309. **OPHTHALMOLOGICAL EXAMS AND THE EARLY DIAGNOSTIC OF RETINOBLASTOMA: A LITERATURE REVIEW**

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**INTRODUCTION:** The retinoblastoma is a rare type of eye cancer, usually more common in children under the age of three and can be lethal if not treated. There are three types of retinoblastomas: unilateral, bilateral and the neuroectodermic primitive tumor or trilateral retinoblastoma. The symptoms consist in the "cat eye", that is characteristic of leukocoria, which can be seen in pictures taken with flash, also problems with the eye's movements, like strabismus, vision impairment, eye pain, bigger eye globe and amblyopia. With an early diagnostic, the chances of cure are up to 90%. Therefore, the literature review is necessary to show the importance of the ophthalmological exams for the early diagnostic of the retinoblastoma, since the current treatments show better results when the disease is identified in a localized stage **METHODS:** The researches were based on 10 bibliographic data articles found in two databases: Scielo and Pubmed, between 2018 and 2023. The keywords used were: retinoblastoma, chosen treatment and early diagnostic. **RESULTS:** It was noticed that the diagnostic can be done by several exams, including the red reflex test, which will track changes in the eye transparencies. This exam needs to be done in every new born in the maternity and needs to be repeated during the first three years of the child, at least twice or three times a year. Medical appointments with ophthalmologists are also necessary for the ophthalmoscopy, and it can be required an eye globe's ultrasonography and a magnetic resonance of the ocular orbits for investigation of the current state of the disease. Those actions decrease the lethality levels due to early diagnostic and bring higher chances of vision preservation and cure. **CONCLUSION:** The ophthalmological exams detect retinoblastoma, allowing a diagnostic of the disease during the initial stages. The knowledge about the importance and the access to those exams and to ophthalmologic care perform an essential role on the mortality related to the retinoblastoma.

310. **ASSOCIATED FACTORS WITH INFANT GROWTH IN THE FIRST TRIMESTER OF LIFE**

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**INTRODUCTION:** Child growth is characterized by intense and complex changes in anthropometric values in the first months after birth. This process results from the interaction between intrinsic (genetic) and extrinsic (environmental) factors. The benefits of breastfeeding for the mother-child binomial during this process are undeniable. However, factors prior to birth, such as intrauterine growth restriction, smoking during pregnancy, and environmental factors can interact in different ways on infant growth. The objective of this study was to investigate the factors associated with the growth of children in the first trimester of life. **METHODS:** This was a cross-sectional, population-based study associated with a multicenter study entitled: Nutritional status of iodine, sodium, and potassium in the mother-child group in five Brazilian macroregions. In this analysis, data from São Luís - MA were used, with a probabilistic sample consisting of 178 breastfeeding women and their infants. Data collection (socioeconomic, demographic, nutritional, gestational, biological, and food consumption) took place in 12 Basic Health Units and in the homes of the breastfeeding women, using computerized semi-structured questionnaires. To investigate the factors associated with child growth in the first trimester of life, multiple linear regression analyses were performed using the STATA 14.0® program. In the univariate analysis, the variables that presented a p-value  $\leq 0.25$  in the regression models were included in the next block until the final model. The significance established in the final model was a p-value  $< 0.05$ . The study was approved by the Research Ethics Committees of the Federal University of Viçosa (n° 2.496.986) and the Federal University of Maranhão (n° 2.982.185). **RESULTS:** Higher daily weight gain velocity (DWGV) is associated with lower birth weight (p-value = 0,028). **CONCLUSION:** The findings indicate the importance of investigations from the early stages of a child's life, suggesting the need for intensified prenatal care with measures to prevent maternal smoking, especially in the first 1,100 days of life, a period when eating habits and established growth will persist throughout the life cycle.

311. **FACTORS ASSOCIATED WITH THE NUTRITIONAL STATUS OF PREGNANT WOMEN**

Amanda Maria Paiva Pereira<sup>1</sup>, James Pereira Alves Junior<sup>1</sup>, Ludmylla Fontenele Lopes Chaves<sup>2</sup>, Nayra Anielly Cabral Cantanhede<sup>1</sup>, Renata de Oliveira Gonçalves<sup>1</sup>

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**INTRODUCTION:** Pregnancy is characterized by the period of development of the embryo in the uterus, in which nutritional needs are higher than normal, due to the pregnant woman's physiological adjustments and nutrient demands for fetal growth. In this way, the nutritional status of the pregnant woman not only affects maternal health, but also that of the fetus, due to the mother's dependence on her growth and development, which can influence her birth weight, prematurity, morbidity and infant mortality. It is also known that nutritional status during pregnancy is responsible for the health of the fetus, with its effects in the short, medium and long term. The present study aimed to evaluate the factors associated with the nutritional status of pregnant women. **METHODS:** Population-based cross-sectional study, linked to a multicenter study developed in five Brazilian macro-regions approved by the Research Ethics Committees of the Federal Universities of Viçosa (n° 2,496,986) and Maranhão (n° 2,982,185). The study sample was probabilistic, consisting of 299 pregnant women. A descriptive analysis of the investigated variables was carried out, presented through absolute and relative frequencies; and statistical analysis in association with nutritional status per gestational week, using the Chi-Square Test ( $p < 0.05$ ) for variables relating to pregnancy planning and the number of prenatal consultations and the Fisher's Exact Test ( $p < 0.05$ ) for the other variables. **RESULTS:** Among the pregnant women evaluated, a significant portion (72.9%) mentioned not planning the pregnancy. Pregnant women predominated in the third trimester of pregnancy (42.1%), and only 24.4% attended 6 or more prenatal consultations. Data regarding pre-pregnancy BMI (Body Mass Index) reveal that 8.7% of pregnant women were underweight and 24.6% were overweight. A large portion (44.4%) presented obesity in relation to nutritional status by gestational week according to BMI. Association between nutritional status according to BMI and each of these variables, was no statistically significant difference, with the exception of age ( $p$  value = 0.003). **CONCLUSION:** The mother's age was an important factor in association with the pregnant woman's nutritional status: younger mothers have a greater tendency to be underweight, while older mothers tend to be overweight and obese.

312. **FACTORS ASSOCIATED WITH DEATH IN PATIENTS WITH TRAUMATIC BRAIN INJURY CAUSED BY FIREARMS**

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<sup>1</sup> Universidade CEUMA

**INTRODUCTION:** Traumatic brain injury (TBI) is an injury caused by an external force that affects the brain parenchyma or its underlying structures. These affected regions are evident because they are the targets of most traumatic actions and because they protect the intracranial structures, thus representing one of the main causes of death in trauma victims. Due to the increase in urban violence, firearm projectiles (FAP) are one of the main causes of this injury. As a result, injuries caused by FAP constitute a high mortality rate, making this case a complex and emergency approach. Therefore, the aim of this study is to analyse the factors that lead to death in patients with firearm-related TBI. **METHODS:** This is a bibliographic survey carried out through the search and analysis of scientific articles published on the Scielo, Google Scholar and Virtual Health Library online platforms. The descriptors "Firearms", "Cranio-cerebral trauma" and "Death" were used, and 47 articles were found. After excluding those that fell outside the proposed objective, 8 documents were obtained in English, Spanish and Portuguese. **RESULTS:** The following factors were found to be related to progression to death: fractures, brain injuries, type of orifice, trajectory of the projectile, distance and speed of the shot. With regard to fractures, it was observed that skeletal trauma is more prevalent in the occipital bone. Skull base fractures also stand out, as they affect structures such as the brain stem. As for brain injuries, intracranial haemorrhages are the most common, worsening when they are deeper; in addition, the penetrating damage mechanism is more associated with fatalities, as it damages the brain tissue more. In relation to the orifices and trajectory of the PAF, wounds with an exit orifice and which reach the coronal and sagittal plane are more likely to die. Finally, greater distance and velocity of the shot are also related to an increased risk of mortality. **CONCLUSION:** Considering the increase in the number of patients with TBI in emergency departments, greater analysis and knowledge of the aforementioned factors could lead professionals to develop better strategies to treat these patients and prevent them from dying and developing neurological complications.



313. **FACTORS ASSOCIATED WITH THE OCCURRENCE OF METABOLIC SYNDROME IN WOMEN DURING MENOPAUSE**

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**INTRODUCTION:** The incidence of cardiovascular disease increases after menopause. This increasing risk appears to be determined by the metabolic syndrome, of which all components (visceral obesity, dyslipidemia, arterial hypertension and glucose metabolism disorder) are associated with a higher incidence of coronary artery disease. Several studies show a higher prevalence of metabolic syndrome in postmenopausal women. This may be a consequence of ovarian failure or result from metabolic changes promoted by an increase in visceral fat secondary to a decrease in estrogen, and it is not clear whether menopause increases cardiovascular risk in all women or only in those who have metabolic syndrome. The objective of this review is to analyze the interrelationship between menopause and the components of metabolic syndrome. **METHODS:** A bibliographical search was carried out in the Scielo, LILACS and MEDLINE databases, using the key words: metabolic syndrome, menopause and obesity, in Portuguese and English, from 2018 to 2023. **RESULTS:** Based on the studies analyzed, the prevalence of metabolic syndrome increases when we compare the period from pre- to post-menopause, regardless of the population and study design. The identification of significant associations related to metabolic syndrome, such as age at menarche, eating habits and physical activity, as well as sleep changes and regular consumption of alcohol and tobacco, also contributed significantly to the susceptibility of women after the reproductive period. present such clinical manifestations. Among the biological components, the occurrence of polymorphism of estrogen receptors 1 and 2, senescence, characterized by the drop in follicular reserve and consequent estrogen deficiency, added to the enhanced action of pro-inflammatory cytokines and hormonal changes, promote weight gain, redistribution of body fat with abdominal obesity and increased insulin resistance, crucial conditions for the diagnosis of metabolic syndrome. **CONCLUSION:** The treatment of metabolic syndrome is based on changing lifestyle habits and, when necessary, using medication aimed at its components. In the presence of symptoms of climacteric syndrome, hormonal therapy, when indicated, will also help to improve metabolic syndrome.

314. **FACTORS ASSOCIATED WITH PREMATURETY IN INFANTS FROM A HUMAN MILK BANK**

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**INTRODUCTION:** Prematurity is a complex syndrome with multiple etiological factors, which is associated with a wide spectrum of clinical conditions that define survival and the pattern of growth and development in different risk subgroups. Those born preterm have an increased risk of becoming ill and dying as a result of incomplete fetal development and their greater susceptibility to infections. Furthermore, prematurity is responsible for a large part of childhood morbidities and an important factor in the causes of neonatal deaths. As lower the gestational age was, higher the cognitive impairment and associated disabilities. The present study aimed to investigate the factors associated with prematurity in infants assisted by the childcare program of a Human Milk Bank (HMB). **METHODS:** Cross-sectional study within a prospective cohort in which 257 nursing-infant pairs monitored at the HMB were evaluated, in a non-probabilistic sample - Research Ethics Committee (CEP-HUUFMA), under Consubstantiated Opinions no.: 2,341,252 and no.: 2,673,595. Socioeconomic and demographic data of the nursing mother and infant, biological data of the infant and data related to breast complications were collected through semi-structured questionnaires. To investigate the factors associated with prematurity, multivariate Poisson regression analysis was performed, with robust variance using the STATA 14.0® program. In the bivariate Poisson analysis with robust variance, variables that presented  $p \leq 0.20$  were selected to enter the adjusted analysis. The selection of variables was carried out using the stepwise by elimination method. Only variables with  $p < 0.05$  remained in the final model, with statistical significance. **RESULTS:** Having six or more prenatal consultations (PR = 0.50; 95% CI 0.26 – 0.97;  $p = 0.040$ ) and low birth weight (PR = 6.16; 95% CI 3.24 - 11.70;  $p < 0.010$ ) are associated with prematurity. **CONCLUSION:** The findings highlight the importance of prenatal care in the outcome of premature birth and the most immediate consequence of prematurity for newborns as it is associated with low birth weight. Thus, indicating necessary improvements in public policies, in the planning of preventive actions and in pre- and post-natal health care, consequently reducing child morbidity and mortality.

**315. CLINICAL, BIOCHEMICAL, AND ULTRASONOGRAPHIC FACTORS IN THE PREDICTION OF PREMATURITY**

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**INTRODUCTION:** Premature birth is defined by the World Health Organization as delivery occurring before 37 completed weeks of gestation. Prematurity has multifactorial causes, making the creation of accurate prediction models challenging. Even patients diagnosed with preterm labor based on subjective clinical criteria have an uncertain progression, especially in the early stages. **METHODS:** This is a narrative literature review on clinical, laboratory, and ultrasonographic factors in the prediction of prematurity, constructed from publications found in the "PubMed" database. Scientific productions were selected using the descriptor "Prediction of prematurity." Four articles, in Portuguese and English, published between 2018 and 2023, were selected and thoroughly read for data collection. **RESULTS:** In the articles found, it is observed that concerning clinical aspects, a history of spontaneous preterm birth is a strong predictor for the occurrence of a new event, as approximately 25 patients experienced recurrence. Additionally, factors such as maternal age over 40, uterine malformations, low socioeconomic status, black race, low or high BMI, and gestational weight gain also played a role in characteristics related to preterm births. Among biomarkers related to prematurity, interleukins (IL) 6 and 8, corticotropin-releasing hormone, serum and salivary estriol, fetal fibronectin (fFN), and, more recently, insulin-like growth factor-binding protein-1 phosphorylated (phIGFBO-1) are mentioned. Of these, the two most used in clinical practice are the fetal fibronectin test and IGFBO-1. Changes in cervical length assessed by transvaginal ultrasound measurements seem to be a good marker for the increased risk of preterm birth. Finally, elastography (E-Cervix™), a tool that measures cervical stiffness, has recently been used to predict the risk of preterm birth in women with a short cervix. **CONCLUSION:** The prediction of prematurity is a complex process involving the analysis of multiple clinical, laboratory, and ultrasonographic factors. Integrating this information allows for a more accurate assessment of the risk of preterm birth, which, in turn, can lead to timely interventions, reducing perinatal morbidity and mortality.

**316. GENETIC FACTORS ASSOCIATED WITH CHIARI MALFORMATION TYPE 1: A NARRATIVE REVIEW**

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**INTRODUCTION:** Chiari malformation type 1 (CM1) is an anomaly of the craniocervical transition, characterized by herniation of the cerebellar tonsils through the foramen magnum. Its etiology remains poorly understood, involving genetic and environmental factors. Evidence of genetic contributions includes twin studies, familial aggregation, and co-occurrence with genetic syndromes. This narrative review aims to discuss the current evidence regarding the contribution of genetic factors to the etiology of CM1. **METHODS:** A narrative review of the current literature was conducted. The articles analyzed correspond to the period from 2013 to 2023 and were chosen from the Pubmed database. Initially, the search using the descriptors "Arnold-Chiari Malformation" and "Genetics", in addition to the Boolean operator "AND", yielded 67 results. Only fully available articles in English were chosen, which resulted in the exclusion of 3 articles. Subsequently, after a careful reading of the titles and abstracts, 4 articles were chosen to compose this review. **RESULTS:** The studies discuss the possible genetic origin of CM1, pointing to evidence in studies of monozygotic twins, familial aggregation of cases of the disease and association with other syndromes. In addition, there is mention of genetic variants associated with CM1, mainly related to collagen and extracellular matrix genes, which may predispose to diseases co-occurring in individuals with CM1, such as osteogenesis imperfecta and scoliosis. Interactions between FGFR-RAS-PI3K pathways may explain some overlapping phenotypic features and may have a significant role in the pathogenesis of CM1. In addition, a study carried out with whole exome sequencing identified two new haplotypes linked to 1q43-44 and 12q23-24,11 for small posterior fossa, a phenotype of 83% of patients with CM1. Genes such as MYBPC1, COX20 and AKT have been highlighted as potentially relevant to the causal variants of CM1. **CONCLUSION:** CM1 most likely has polygenic manifestations, in which multiple genetic variations determine the condition and impact of the syndrome, making it necessary to perform a multidisciplinary clinical and neurological evaluation, so that the identification of a genetic relationship between associated diseases can help to understand the etiopathogenesis of this condition.

**317. FACTORS ASSOCIATED WITH HIV/AIDS CASES IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** The transmission of the Human Immunodeficiency Virus (HIV) is one of the most common infections currently, leading to the occurrence of Acquired Immunodeficiency Syndrome (AIDS). This disease deteriorates the immune system, triggering the onset of other illnesses, and possesses a high transmission and mortality rate. It is noteworthy that many municipalities in the State of Maranhão face public health issues and have experienced an increase in HIV cases in recent years. Thus, the aim of this study is to analyze the factors associated with the rise in HIV/AIDS cases in Maranhão.

**METHODS:** This is an integrative review, where articles from different national and international databases were utilized: BVS, Pubmed, and Lilacs. The descriptors considered were "HIV," "Maranhão," and "AIDS," and the inclusion criteria referred to studies in Portuguese and English, published between 2019 and 2022. Additionally, articles conflicting with the theme and inclusion criteria were excluded.

**RESULTS:** Approximately 10 articles were analyzed, mostly quantitative in nature and published between 2020 and 2022. Two studies addressed the increase in HIV cases in Maranhão, focusing on regions in the northern part of the State - the capital São Luís - and central regions - such as São Mateus and Pedreiras. In 3 of the analyzed articles, socioeconomic and educational factors were considered the main reasons for HIV transmission due to lack of access to information. There was divergence among studies regarding the multiplicity of partners as a predominant factor for AIDS cases, as 1 article contradicted 2 others characterizing the heterosexualization of HIV as an important aspect. Additionally, 4 articles pointed to the lack of routine exams and Testing and Counseling Centers (TCCs) as aggravating factors for the increased HIV transmission rate. **CONCLUSION:** Based on this study, the current situation of increasing HIV/AIDS cases in Maranhão is understood. According to the analyzed articles, socioeconomic status, multiplicity of partners, and lack of routine exams are factors linked to the rise in AIDS cases in the State. The provision of educational actions focused on condom use and increased availability of TCCs are highlighted as important public policies in the studies for reducing the HIV/AIDS rate.

**318. PATHOPHYSIOLOGY OF NEUROPSYCHIATRIC LUPUS: A REVIEW**

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**INTRODUCTION:** Systemic lupus erythematosus is an idiopathic autoimmune disease with systemic repercussions on the body, including the central nervous system in its neuropsychiatric form, which can affect 30 to 40% of patients. Although the pathophysiology related to neuropsychiatric manifestations has not yet been fully elucidated, new lines of research are seeking to clarify these issues.

**METHODS:** A search was carried out in the Scielo and PubMed databases, using the descriptors "Lupus Vasculitis", "Central Nervous System", "Etiology", "Immunology" and "Physiopathology". The inclusion criteria were articles that were available in full and that covered the subject of this study. There was no limitation on publication time.

**RESULTS:** There are two main pathogenesis hypotheses. The first assumes the existence of a primary inflammatory process, mediated by autoantibodies and cytokines (IL-2, IL-6, TNF- $\alpha$ , etc). Some biomarkers, such as the aquaporin-4 antibody and antiphospholipid antibodies are promising in their association with neuropsychiatric SLE. The presence of the anti-ribosomal protein P antibody in cerebrospinal fluid was also found to have a strong association with neuropsychiatric SLE. Another hypothesis is that neurological manifestations are mediated by vascular disease, associated with a process of destruction or hyalinizing proliferation, mainly in the small vessels. Some studies suggest that the vascular and inflammatory etiology may damage the blood-brain barrier, a process associated with TWEAK/Fn14 signaling, from the TNF family. **CONCLUSION:** The pathophysiology of neuropsychiatric SLE has not yet been fully clarified, but new studies point to inflammatory and vascular involvement, as well as the emergence of possible biomarkers that allow the condition to be screened.

**319. HOSPITAL EXPENDITURES OF STROKE ADMISSIONS IN THE HEALTHCARE SYSTEM OF MARANHÃO**

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**INTRODUCTION:** Stroke, defined as the interruption of blood flow to the brain due to vessel rupture or obstruction, falls within the spectrum of cerebrovascular diseases and accounts for a significant number of deaths in Brazil. Given its impact, stroke stands out as a leading cause of public health resource utilization, particularly during hospitalization. The aim of this study is to quantify hospital expenses related to stroke patient admissions. **METHODS:** This study employs an ecological, cross-sectional, quantitative approach utilizing data from the Department of Informatics of the Unified Health System (DATASUS). Data on hospital admissions, including gender, race, age group, and macro-regions, were collected. Statistical analysis was performed using SPSS 25.0 for Windows, employing Kendall's Tau-b and chi-square tests at a significance level of 5%. **RESULTS:** Hospital admissions of stroke patients incurred a total cost of R\$48,717,550.29 for the Unified Health System (SUS) during the evaluated period, with 87.11% attributed to hospital services and 12.89% to professional services, averaging R\$1,100.27 per admission. The majority of admissions were male individuals of mixed race (22.59%), accounting for a total expenditure of R\$9,055,370.35. Patients aged 70 to 79 years constituted the largest proportion of admissions (27.01%), with individuals over 60 years old representing 72.54% of admissions. The Northern macro-region stood out, with hospitals in this region incurring the highest total costs (56.2%). Statistical analysis revealed a significant positive correlation between the number of admissions and hospital expenses ( $\tau = 0.733$ ;  $p = 0.016$ ). **CONCLUSION:** The magnitude of stroke admissions and associated costs was substantial, with predominantly male individuals of mixed race being affected, especially those aged 70 to 79 years. The northern region of the state incurred the highest costs. Thus, there is a clear need for the implementation of targeted public policy initiatives aimed at reducing admission rates and consequently curbing hospital expenses.

**320. PREGNANCY AND LACTATION IN TRANS MEN: A LITERATURE REVIEW**

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**INTRODUCTION:** Pregnancy and lactation involve sociocultural aspects associated with women, however, in trans men who have not undergone surgeries such as hysterectomy, metoidioplasty or phalloplasty, pregnancy and breastfeeding are a possibility. However, as hormonal therapy with testosterone causes the cessation of ovulation, it must be interrupted 8 to 10 months before and remain suspended throughout pregnancy, and can be reintroduced during breastfeeding, despite interfering with the hormones necessary for the production of milk. **METHODS:** This is a literature review, in which the Google Scholar and Pubmed portals were searched, using as eligibility criteria original articles published from 2019 onwards, without language restrictions, and which specifically presented the topic. The descriptors used were: "transgender individuals"; "pregnancy" and "lactation". **RESULTS:** The term transsexual is used to describe a person who does not identify with the gender identity designated by their biological sex, deviating from the sociocultural standards of female or male. Therefore, this discrepancy can be a source of dysphoria, leading to gender transition, which is the search for alignment of the body with gender identity, such as social name, hormone therapy and gender adjustment surgeries. Therefore, trans men who have not undergone hysterectomy, metoidioplasty or phalloplasty can become pregnant, simply by stopping hormonal therapy, preferably 8 to 10 months beforehand. However, stopping hormone therapy reverses the appearance of typically cis-masculine secondary characteristics, which causes an increase in gender dysphoria and feelings of anxiety, depression, isolation and loneliness. Because of this, many trans men choose not to breastfeed, to increase breast size and maintain testosterone suspension, but some choose to breastfeed, to strengthen the bond and attachment. Regarding lactation, the use of testosterone is safe, as it is not significantly excreted in milk, but it interferes with the hormones necessary for milk production, such as prolactin. **CONCLUSION:** Therefore, it is clear that there is a possibility of pregnancy and lactation in trans men, but multidisciplinary monitoring is necessary to reduce the increase in dysphoria.

**321. HIPERCOAGULABILIDADE NA COVID-19: UMA REVISÃO DE LITERATURA**

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**INTRODUCTION:** COVID-19 caused by the SARS-CoV-2 coronavirus, declared in March 2020 as a pandemic by the World Health Organization, is still a topic of great relevance. Although most cases present with mild respiratory symptoms, many patients develop complicated conditions, requiring hospitalization. Of these, there is a high incidence of coagulopathies, which is associated with high mortality rates. Therefore, this present study intends to analyze the aspects of hypercoagulability of SARS-CoV-2 infection and its clinical repercussions. **METHODS:** This study is a literature review, using the Scientific Electronic Library Online (SciELO) and Latin American Literature in Health Sciences (LILASC) databases, considering the years from 2020. The inclusion criteria were articles available online and published in Portuguese and that presented the theme of the study. **RESULTS:** In SARS-CoV-2 infection, there is an imbalance in homeostasis due to an intense inflammatory response, which leads to thrombosis in the microcirculation. In this process, the innate immune system, chemokines, especially Tumor Necrosis Factor (TNF- $\alpha$ ) and Interleukins (IL), such as (IL-1, IL-6 and IL-8), pro-inflammatory processes, adhesion molecules, tissue factor expression and endothelial and platelet activation. The main hematological disorders related to COVID-19 are manifested by venous thromboembolism, such as pulmonary embolism and deep vein thrombosis, and arterial thrombosis, such as stroke. Both contribute to increased mortality, especially arterial thrombosis. **CONCLUSION:** Although the pathogenic mechanisms of hypercoagulability in COVID-19 are not yet fully understood, studies indicate that the "cytokine storm", characterized by a hyperactivation of the immune system, contributes to hypercoagulation, which leads to thrombotic conditions, ischemia and organic dysfunction. **Keywords:** ipsa, consequatur, galisum.

**322. TISSUE HYPOXIA IN THE PATHOGENESIS OF INTESTINAL DISEASE - A LITERATURE REVIEW**

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**INTRODUCTION:** Tissue hypoxia is the dysregulation of oxygen consumption and vascular dysfunction due to the infiltration of immune cells. This occurs in inflammatory bowel disease (IBD) which is marked by dysregulation of the epithelial barrier. The present review aims to delineate the functions of hypoxia-inducible factor (HIF-1) in the initiation and progression of IBD, and in parallel to differentiate physiological and pathological hypoxia. **METHODS:** This is a literature review, in which original articles written in English published in the SciELO, Web of Science, Scopus and PubMed databases were used. 15 articles were found in PubMed, of which 6 are related to the topic and were used in the present work. No articles on the topic were found in the other databases. **RESULTS:** Oxygen is the central element for the oxidative metabolism of tissues and for understanding cellular and tissue responses related to hypoxia. Therefore, HIF-1 acts in cellular adaptation by regulating oxygen levels. Therefore, it is important to emphasize that physiological hypoxia occurs in healthy tissues and pathological hypoxia is induced by active inflammation. Under physiological conditions, the gastrointestinal tract is characterized by a steep anaerobic oxygen gradient toward the highly vascularized submucosa. Dysregulation of this gradient is observed in IBD, due to the consumption and supply of oxygen, making the intestinal mucosa inflamed. Therefore, hypoxia will favor the occurrence of two pathologies: ulcerative colitis (UC) and Crohn's disease (CD). In UC, intestinal fibrosis is restricted to the mucosal and submucosal layers, but in CD it can encompass the entire dimension of the intestinal wall, causing the appearance of strictures. Furthermore, the HIF-1 subunit comprises a highly conserved oxygen-dependent degradation domain. The main oxygen sensors in the cell are prolyl hydroxylase domain (PHD) enzymes - - ketoglutarate-dependent dioxygenases, consisting of the isoforms PHD1 (EGLN1), PHD2 (EGLN2) and PHD3 (EGLN3). It is reported that PHD2 and PHD3 mRNA levels increase as a result of hypoxia, and PHD1 is not regulated by this feedback mechanism. **CONCLUSION:** Thus, the results revealed that there is a relationship between pathological hypoxia and UC and CD. However, the timing of the occurrence of these pathologies has not been well determined, and further studies are needed to elucidate this association.

**323. CARDIOVASCULAR HISTORY OF PATIENTS WITH CHRONIC HEART FAILURE**

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**INTRODUCTION:** Chronic Heart Failure (CHF) is a significant and challenging public health issue associated with outcomes such as death, hospitalization, and clinical emergencies. The multiple risk factors involved in its genesis make prevention and management difficult. This study aims to describe the cardiovascular history of patients with CHF in outpatient care. **METHODS:** This is an observational, cross-sectional study with a qualitative and quantitative analysis. Sample: 169 patients with CHF with left ventricular ejection fraction (LVEF) < 50%, treated at a University Hospital in Maranhão, aged ≥18 years. Information was obtained from medical records and questionnaire administration (CAAE:25756919.9.2004.5086). Variables are presented as mean, relative, and absolute values. **RESULTS:** The sample consists of 122 men (72.19%) and 47 women (27.81%), with a mean age of 59.23 years. Among the various etiologies of HF, the most prevalent is ischemic (32.54%; n=55), followed by hypertensive cause (26.04%, n=44). Among cardiovascular antecedents, 89.94% (n=152) of patients do not report a history of atrial fibrillation, and 96.45% (n=163) do not have a history of peripheral arterial disease or aortic vascular disease. However, 23.08% and 11.24% report at least 1 episode of acute myocardial infarction (AMI) (n=39) and stroke (n=19), respectively. Moreover, 79.29% of the sample (n=134) was hospitalized due to cardiovascular complaints. Regarding interventions through the implantation of electronic cardiac devices (ECDs), 10.06% of those analyzed (n=17) had an implantable cardioverter-defibrillator (ICD) implanted, while 5.32% (n=9) use a conventional pacemaker. On average, about 27.22% underwent elective surgical treatment of myocardial revascularization (n=17) or coronary transluminal angioplasty (CTA) (n=29). **CONCLUSION:** There is a higher prevalence among the male population and etiologies that support that HF is predominantly a complication of chronic diseases such as hypertension and atherosclerosis. The average age confirms the chronicity of this syndrome. The high rate of hospitalizations and the need for interventions highlight the severity of the condition, as well as the high social cost to public health. These pathological findings emphasize the complexity of HF and the need for personalized approaches in its treatment.

**324. EPIDEMIOLOGY OF HOSPITALIZATIONS FOR LEPROSY IN THE BAIXADA MARANHENSE AND IN BRAZIL**

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**INTRODUCTION:** Leprosy is a chronic infectious disease caused by the bacillus *Mycobacterium leprae*, and its early detection is considered the leading way to prevent progression to a state of physical disability. This more severe condition can lead to limitations in daily activities, restrictions on social integration, and discrimination for the affected individual. From this perspective, the study aims to analyze the epidemiological profile of hospitalizations by comparing records from the Baixada Maranhense (a microregion composed of 21 municipalities located in the northwest of the state of Maranhão, Brazil) with those from the entire Brazilian territory. **METHODS:** This is a descriptive epidemiological study with a quantitative approach, conducted through data collection provided by the Hospital Information System (SIH/SUS), on hospital morbidity by location of hospitalization, made available through the platform of the Information Technology Department of the Public Health Care System (DATASUS). The variables analyzed included age group, gender, and color/race in the period between August 2013 and August 2023 in the Baixada do Maranhão (MA) and Brazil as a whole. **RESULTS:** In the time interval studied, the highest rate of hospitalizations in the Baixada Maranhense corresponds to the 30 to 39 and 40 to 49 age groups, which together account for 40% of the total, while in Brazil, the highest sum is found in the age groups of 40 to 49 years and 50 to 59 years (36.3%). Male gender showed a higher prevalence of hospitalizations due to leprosy in both studied locations, with almost similar values, at 67.1% in the Maranhense microregion and 66.8% in the Brazilian territory. Additionally, both in the Baixada do MA and nationally, the self-reported brown-skinned had the highest incidence, at 72.8% and 37.7%, respectively. **CONCLUSION:** Therefore, it is understood that the disease predominantly occurs in self-declare as brown men in both studied areas. On the other hand, compared to data from Brazil, a younger age group is affected in the Baixada Maranhense, indicating the need for a thorough investigation of the factors associated with this particularity. Thus, it can be concluded that early detection of leprosy is a measure that should be encouraged, given its importance in reducing the number of hospitalizations and, consequently, reducing more severe sequelae - which, if not controlled, would contribute to reinforcing the stereotype of the disease.

**325. EPIDEMIOLOGY OF HOSPITALIZATIONS AND MORTALITY DUE TO TUBULO-ITIAL NEPHRITIS IN THE NORTHEAST**Laísa Melo Silva<sup>1</sup>, Ana Maria Alves Araújo<sup>1</sup>, Lívia Brasil Camelo<sup>1</sup>, Maria Letícia Alves Araújo<sup>1</sup>, Kamile Cirilo Silva<sup>1</sup><sup>1</sup> Universidade Federal do Maranhão (UFMA).

**INTRODUCTION:** Tubulointerstitial nephritis (TIN) is characterized by an infiltration of inflammatory cells in the renal interstitium and can be caused by drugs, infections, autoimmune diseases, and genetic conditions. TIN is responsible for 5% to 15% of cases of acute renal failure (ARF) in children and adults. Therefore, this study aims to evaluate the epidemiological profile of cases of hospitalization and mortality due to TIN in the Northeast region. **METHODS:** This is a descriptive and quantitative epidemiological study, based on data obtained from the SUS Hospital Information System (SIH/SUS) available by the Department of Informatics of the Unified Health System (DATASUS), between January 2018 and December 2022, with an emphasis on analysis of gender, age group and race. **RESULTS:** During the period studied, it was found that 8.22% of hospitalizations for diseases of the genitourinary system recorded in the Northeast Region were due to tubulointerstitial kidney disease. When approaching the different states of this region, a prevalence of 22.89% of cases was noted in the state of Maranhão, followed by Bahia (22.08%) and Pernambuco (17.59%). Regarding race, 57.46% of the registered numbers are brown people. As for gender, 65.08% of the affected public are women. Regarding the affected age groups, 17.93% are between 20 and 29 years old, followed by individuals between 30 and 39 (15.55%) and between 40 and 49 (12.81%) years old. The gender-age group relationship established by overlaying this data implies a certain increase in incidence in males as age increases, especially between 40 and 69 years old, while female incidence peaks between 20 and 49 years old. On the other hand, mortality has a steady upward trend as both sexes age, with a predominance in the over-60 age group (68.08%), and slightly higher rates in women (51.60%). The total mortality rate observed was 1.79% in relation to the number of hospitalizations. **CONCLUSION:** Therefore, the epidemiological profile of patients hospitalized for tubulointerstitial nephritis is predominant in Maranhão and in mixed race populations. Furthermore, it is also prevalent in women, especially between the ages of 20 and 29. Finally, the higher mortality rates in the elderly population indicate greater lethality of the pathology with ageing, even though its peak incidence does not occur during this period.

**326. PRIMARY CARE STRATEGIES IN THE PREVENTION OF INJURY RELATED TO HIGH BLOOD HYPERTENSION**Anderson Gomes Nascimento Santana<sup>1</sup>, Erick Fernando Souza Rolins<sup>1</sup>, Giovana Ferreira Crispim<sup>1</sup>, Marisa Lacerda Guida de Brito<sup>1</sup>, Pâmella Maria Ferreira Cantanhêde<sup>1</sup><sup>1</sup> Universidade Federal do Maranhão (UFMA).

**INTRODUCTION:** The effective management of systemic arterial hypertension (SAH) is a priority for the Family Health Strategy Teams – EESF, necessary to reduce the costs, morbidity and mortality associated with cardiovascular diseases. Therefore, this study aims to analyze effective methods and interventions in primary care for the prevention of health problems related to hypertension. **METHODOLOGY:** Bibliographic study carried out in the second half of 2023, through searches in the VHL, PubMed and Scielo databases, using the standardized descriptors “primary health care” AND “hypertension” AND “strategies” and the filter for the last 5 years, which resulted in 6 relevant articles. **RESULTS:** In the treatment of hypertension, women showed better adherence rates compared to men. Thus, with the aim of improving the quality of life of patients, in Brazil, several therapeutic strategies are used, in addition to establishing diagnostic, treatment and monitoring goals to be achieved by the EESF. Therefore, educational interventions associated with nutritional measures and physical exercise showed good results in terms of weight reduction and control of blood pressure levels. Furthermore, carrying out screening tests in health services showed a 34% increase in patient demand. Another means of identifying hypertensive patients is home visits promoted by multidisciplinary teams, which has proven to be a great strategy for identifying new hypertensive patients and patients with low adherence to treatment. Shared decision-making and management of SAH is a participatory strategy that has been shown to provide superior results in terms of adherence to antihypertensive therapies, resulting in higher quality care and greater patient satisfaction. In relation to pharmacological treatment, the use of affordable medicines, as well as those available free of charge at basic pharmacies, administered in a single daily dose according to guidelines, resulted in an improvement in the control of SAH. **CONCLUSION:** Therefore, the effectiveness of many of the interventions analyzed is evident, especially when applied in combination. However, due to the silent nature of hypertension, many patients, especially men, have an incomplete understanding of the need for consistent, lifelong management in the control and prevention of hypertension.

327. **DEEP BRAIN STIMULATION AS A TREATMENT FOR PARKINSON'S DISEASE.**

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**INTRODUCTION:** Parkinson's disease (PD) is a degenerative disease of neurological origin, characterized by alterations in the central nervous system in the substantia nigra region, through the loss of dopaminergic neurons and abnormal accumulation of the aggregated alpha-synuclein protein in brain tissues, thus, becoming part of the group of synucleinopathies. Furthermore, functional neurosurgical treatment of PD encompasses two techniques, which are microlesions of deep brain nuclei and deep brain stimulation (DBS), through modulation of typical oscillations related to PD. Therefore, this article aims to elucidate the Deep Brain Stimulation technique as a treatment and management of Parkinson's Disease.

**METHODOLOGY:** The study is a literature review, whose data comes from the Google Scholar platform, using the descriptors "treatment of Parkinson's Disease" and "brain stimulation in Parkinson's Disease", through which 3 were selected articles to carry out the work. The inclusion parameters were: studies written in English and/or Portuguese and published in the last 3 years. Articles that did not fit the chosen theme and the stipulated publication period were excluded. **RESULTS:** Initially, during surgery, brain mapping is performed using computed tomography and magnetic resonance images, in order to provide coordinates, target accuracy of 1mm and calculating possible probe trajectories. DBS stimulates certain areas of the global corticobasal ganglio-thalamo-cortical network, such as the target for parkinsonian tremor and essential tremor, which is the ventral intermediate nucleus of the thalamus, but it is only effective for this, modalities such as subthalamic nucleus and internal globus pallidus are the most common because they integrate more typical specificities of the motor system. Thus, DBS interacts with pathological neural networks, controlling and blocking the unwanted circuit in the basal ganglia loops, through an implantable pulse generator, which produces an electrical current, leading to a suspension of the flow of abnormal information. **CONCLUSION:** Therefore, the value of DBS in the process of treating patients with PD can be inferred, as it shows effectiveness and efficiency in modulating the areas responsible for the pathological characteristics of the disease. Therefore, it is essential to use this technique in the therapeutic environment.

328. **SUBARACHNOID HEMORRHAGE DUE TO COCAINE CONSUMPTION: A LITERATURE REVIEW**

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**INTRODUCTION:** The consumption of cocaine is a risk factor for increasing intracranial pressure (ICP), triggering the development of aneurysms and other neurological damages. In this work, subarachnoid hemorrhage (SAH) stands out as a worsening factor of the clinical condition of the patient, being one of the main causes of death among these users. **METHODS:** This is an integrative literature review of October of 2023, based on works published on PubMed, ScienceDirect, Scielo, and the Periodical Portal - CAPES. The descriptors "cocaine" and "subarachnoid hemorrhage" were applied, with the boolean operator "AND." The inclusion criteria consisted of publications that were from 2013 onwards, universally accessible and written in English or Portuguese. The exclusion criteria were other literature reviews and not related works. In summary, 11 articles were analyzed. **RESULTS:** Cocaine impacts the synaptic transmissions by inhibiting the reuptake of norepinephrine and dopamine, leading to the accumulation of these neurotransmitters in the synaptic cleft, causing psychological and behavioral changes. This substance and its metabolites are associated with aneurysms formation and rupture, increasing the risk of hemorrhages by more than 80% due to the increase in ICP caused by the elevated excitatory neurotransmission. Thus, there are recurrent damages to blood vessel tissues which causes aneurysms and, with persistent high ICP, their rupture, triggering SAH. Hence, cocaine is related to severe clinical outcomes and high hospital morbidity, as well as many complications such as cerebral ischemia. One study shows that among patients with SAH, a third was caused by recent cocaine use. Another study suggests a significant increase in the incidence and prevalence of SAH, ischemic stroke and intracerebral hemorrhage among cocaine users when compared to non-users, which shows this substance's impact on the body and the development of complications. **CONCLUSION:** Cocaine is a vasoactive substance, linked to significant implications in the central nervous system. Studies show that among patients with SAH, cocaine users have more severe clinical outcomes. However, as this substance is illegal, there is little information on the subject. Therefore, more studies are needed to better understand the effects of cocaine on the body, mainly its relationship with SAH.

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# Abstracts of the 9th International Academic Medical Congress of Maranhão (VIII COIMAMA) 2024

## 01. DENGUE IN THE LAST 5 YEARS: AN ANALYSIS OF MARANHÃO IN THE BRAZILIAN EPIDEMIOLOGICAL OVERVIEW

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**INTRODUCTION:** Dengue is one of the most common arboviruses in the country, characterized by being an acute, systemic, dynamic, debilitating and self-limited febrile disease, which can progress seriously and even lead to death. This study aims to understand the epidemiological profile of the disease over the last five years, comparing the state of Maranhão with Brazil. **METHODS:** Cross-sectional observational study, whose data were obtained from consultations in the Hospital Information System (SIH/SUS), on the Datasus platform. The variables analyzed were "sex", "race/color" and "age group", in the years 2019 to 2023. During the sample period, 186,401 hospitalizations for dengue were recorded in Brazil. **RESULTS:** Analyzing the epidemiological profile of these hospitalizations, there were a greater number of cases in the mixed-race population (43%), females (52%), aged 20 to 29 (12%). On the other hand, Maranhão, in the five years analyzed, recorded 5,189 hospitalizations and, similarly to the national trend, with a higher incidence in the mixed-race population (57%), females (51%), in the young adult age group from 20 to 29 years old (15%). When analyzing each year, in the country, there was a 46.7% reduction in the number of hospitalizations for dengue in 2020 and 2021, when compared to 2019, coinciding with the Covid-19 pandemic period. On the other hand, from 2021 to 2022, the absolute number of hospitalizations tripled, when there were 42 thousand cases, followed by 44 thousand in 2023. Regarding Maranhão, in 2019, the highest number of hospitalizations was recorded in the period analyzed, with 2,005 cases. Then, in a similar way to the national context, there was a drop in hospitalizations in 2020 and 2021 (607 and 263, respectively) and, subsequently, a peak in hospitalizations, when this number increased fivefold, reaching 1320 cases in 2022 and 987 in 2023. **CONCLUSION:** The study demonstrated a higher incidence of hospitalizations for dengue in people aged 20 to 29 years, females and mixed race, both in Brazil and Maranhão. When a temporal analysis was carried out, a descending pattern of hospitalizations was observed in 2021 and 2022 (coinciding with the epidemiological scenario of a pandemic caused by the SARS-CoV-2 virus), followed by an increase in subsequent years (2022 and 2023). These data highlight the need to understand the effect of the Covid-19 pandemic on changes in the epidemiological pattern of endemic diseases in Brazil and Maranhão, such as dengue, to develop strategic actions to combat these diseases.

## 02. THE EFFICIENCY OF MAGNESIUM SULFATE IN PREVENTING ECLAMPSIA: AN INTEGRATIVE REVIEW

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**INTRODUCTION:** Eclampsia is a serious complication of preeclampsia, characterized by seizures in pregnant women with preeclampsia. Magnesium sulfate (MgSO<sub>4</sub>) is recognized as the therapy of choice to prevent and treat these seizures. It acts to reduce the excitability of the central nervous system and inhibits the release of acetylcholine in the synapse, in addition to causing a decrease in blood pressure and improving placental perfusion. The recognition of MgSO<sub>4</sub> as a treatment represented a milestone in obstetrics, significantly reducing maternal mortality rates related to eclampsia. Therefore, the objective of the study is to: Evaluate the efficiency of using magnesium sulfate in preventing hypertensive emergencies during pregnancy. **METHODS:** This is an integrative review carried out by selecting studies, clinical trials and literature reviews that demonstrate the relationship between the effectiveness of magnesium sulfate and eclampsia. Selected 6 electronic articles published in the last 5 years, which followed the databases: Scielo, PubMed, Lilacs. Health science descriptors were used: Pregnancy; Preeclampsia; Eclampsia; magnesium sulfate. **RESULTS:** The use of MgSO<sub>4</sub> proved to be effective in different administration and intervention regimes, with a reduction in the mortality rate, the risk of eclampsia and premature displacement of the placenta. Evidently, all regimens achieve therapeutic serum magnesium levels and are more effective than other anticonvulsants such as benzodiazepines and phenytoin. Furthermore, it was analyzed that the average systolic, diastolic and mean blood pressures decreased and resistance was reduced in the uterine, umbilical and fetal middle cerebral arteries. The levels of endothelial dysfunction mediators and electrolytes in pre-eclamptic women showed reduced levels of adrenomedullin, soluble forms of intercellular adhesion molecule-1, and sodium, and increased levels of magnesium and peptide related to the calcitonin gene, but not there was a significant effect on potassium. Therefore, early administration is appropriate and essential. **CONCLUSION:** MgSO<sub>4</sub> represents a significant advance in the prevention and treatment of eclampsia, promoting effective control of tonic-clonic seizures and reducing both maternal and fetal complications. Early and appropriate administration plays a crucial role in the management of severe pre-eclampsia, contributing to better outcomes.

**03. THE E-LEARNING STRATEGY IN MEDICAL EDUCATION: AN INTEGRATIVE LITERATURE REVIEW**

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**INTRODUCTION:** The advent of digital technology has brought innovations to the way learning is approached in the medical field, revealing new virtual pedagogical strategies for healthcare education. E-learning is a means of disseminating and acquiring knowledge through electronic platforms. Distance education using this method has produced mixed results, primarily due to differences in content quality and delivery methods. Therefore, this study aims to explore the e-learning strategy in medical education. **METHODS:** This is an integrative review study conducted based on the PRISMA protocol. The descriptors "medical education" and "e-learning" were used along with the boolean operator "AND" in the PUBMED and MEDLINE databases. Primary studies published in the last 5 years, without language restrictions, focusing on the e-learning strategy in medical education were selected. Exclusion criteria were studies that did not focus on e-learning or did not include medical or paramedic students as the sample. **RESULTS:** A total of 38 articles were found, and after exclusions, 10 studies were selected for this review. The e-learning tools used in these studies included: gamification, interactive learning, online workshops/modules, and digital clinical cases. As for the results, 4 articles found, through tests and questionnaires, improved performance or content retention in the e-learning group compared to traditional education; the other 6 showed good results with the digital strategy but did not find statistically significant differences. Additionally, 4 studies reported higher engagement, enthusiasm, and satisfaction in the e-learning groups compared to traditional ones. Furthermore, 4 articles mentioned the beneficial association of e-learning with simulations or practical training. Finally, 1 article negatively noted the competitiveness caused by gamification. **CONCLUSION:** E-learning strategies have proven to be promising, showing positive educational outcomes, improved performance, and enhanced student engagement and satisfaction. Combining these strategies with practical methodologies may amplify these results. This underscores the importance of continued research to better understand the factors that influence the effectiveness of e-learning. Improving these strategies can foster more efficient and satisfying learning experiences, ultimately leading to better preparation of future healthcare professionals.

**04. THE IMPORTANCE OF EDUCATION IN LIBRAS AND ASSISTANT TECHNOLOGIES FOR HEALTHCARE PROFESSIONALS**

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**INTRODUCTION:** Communication can be defined as the action or effect of communicating, transmitting or receiving ideas and knowledge. This ability is crucial for human socialization, optimizing interaction when the sender and receiver share the same language, ensuring clarity in the flow of the message. In this sense, both training in Brazilian Sign Language (LIBRAS), in health courses, and the application of assistive technologies (AT) in the hospital environment would contribute to meeting the demands of the deaf population, who often face communicative isolation. Thus, this study aims to discuss the need to develop knowledge of LIBRAS among academics in the health field and the importance of tools that facilitate the care of deaf patients, when communication is not being effective. **METHODS:** A literature review was carried out, using the main databases such as Scielo, Medline and Bireme. Using the following standardized descriptors: "Libras", "Health", "Prejudice" and "Assistive technology". Articles published in the last 10 years were included in the analysis, following the inclusion and exclusion criteria that addressed the topic. **RESULTS:** In Brazil, 9.7 million people face some level of hearing impairment, which corresponds to around 5.1% population of the country, this scenario demonstrates the need for effective communication between the health professional and the deaf person. Several authors report that the doctor-patient approach should, therefore, minimize the barriers faced by deaf patients, starting with the training of health professionals in LIBRAS, the incorporation of AT, such as educational videos, and the support of interpreters. These ATs aimed at people with disabilities aim to provide them with autonomy, independence, quality of life and social inclusion. With these tools, healthcare teams' understanding of patient demands can create bonds, identify health needs and build an individualized therapeutic plan. **CONCLUSION:** Often, hearing impaired people do not seek health services due to the difficulty in communicating with professionals in the field, in addition to the perception of prejudice on the part of the health team and other users during communication. Therefore, it is necessary for academics in the health area to seek to specialize in LIBRAS, to assist this population demand with methods that reduce these barriers.

**06. THE PRESENCE OF INFLAMMATORY MARKERS ASSOCIATED WITH THE RISK OF PSYCHOSIS: LITERARY REVIEW**

Andrezza Cristina Ribeiro Lima<sup>1</sup>, Ana Beatriz Mineu Costa Marques<sup>1</sup>, Giovana Ferreira Crispim<sup>1</sup>, Pamella Maria Ferreira Cantanhêde<sup>1</sup>, Zamorano Galvão Moraes<sup>1</sup>, Ana Cleide Mineu Costa<sup>1</sup>.

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**INTRODUCTION:** Psychosis is a mental disorder and is related to several medical and mental conditions. Patients present positive clinical symptoms such as hallucinations, delusions, disorganized behavior, catatonia and social isolation. Its pathophysiology is complex and is associated with inflammatory and structural changes. This study aims to investigate the presence of biomarkers that can predict psychosis. **METHODS:** This is a systematic review of the literature with an indirect approach. Articles were collected from the SciELO, Lilacs, and Pubmed databases, using the descriptors "psychosis" and "inflammatory mediators". Thus, the following inclusion criteria were adopted: publication date from 2013 to 2024, language in Portuguese and English, and with a complete study. In the end, 5 articles were used and each one was analyzed and interpreted. **RESULTS:** Some studies have analyzed the blood of patients with a first psychotic episode and observed an increase in the number of neutrophil granulocytes, which were proportionally related to the severity of positive clinical symptoms, also reporting elevated monocyte and C-reactive protein counts, which suggests that the elevation of innate immune cells is a marker of psychosis, and may indicate that the presence of such cells is a transient inflammatory response during the onset of acute psychosis. The H-Treg hypothesis of psychosis has also been created, in which the immunological loss mediated by Treg lymphocytes was observed as a predictor of a higher risk of psychosis, since hypofunctional Tregs fail to maintain the balance between microglia and astrocytes. Some recent reports relate dopamine dysregulation to the manifestation of psychosis, in which the striatal dopamine synthesis capacity is elevated in people at high risk of psychosis, which also suggests that intervention of the dopaminergic axis may be predictive of subsequent onset of psychosis. **CONCLUSION:** The psychopathological classification of psychosis, through the observation of positive symptoms, can also be aided by the presence of markers, considering that this condition can provoke a response encompassing the endocrine and immune systems.

**07. THE RELATIONSHIP OF THE P53 PROTEIN IN AUTISM-LIKE BEHAVIOR AND MEMORY**

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**INTRODUCTION:** Autism is a neurodevelopmental disorder characterized by deficits in social communication and restricted, repetitive patterns of behavior. The P53 protein, responsible for cell cycle regulation and tumor suppression, has also emerged as a possible modulator of behavior and memory, especially in neurodegenerative contexts and neurodevelopmental disorders. Thus, this work aims to investigate and review the current literature to understand the role of the P53 protein in behavior and memory, especially in relation to autism-like symptoms. **METHODS:** This study is a systematic literature review. Articles were selected through searches on the "PubMed", "Google Scholar" and "NeuroscienceNews" platforms using the descriptors "P53 protein", "autism", "memory", "neurodevelopmental disorders", taking into account those that had already been experimentally tested in the laboratory with evidence. The inclusion criteria were articles published in the last 5 years, written in English and/or Portuguese. Articles that exceeded the publication date, duplicates and inappropriate articles were excluded. **RESULTS:** Reduced levels of P53 in the hippocampus were found to result in repetitive behaviors, decreased sociability, and impaired learning, which are neurobiological dysfunctions observed in autism spectrum disorders. Furthermore, p53 levels were also observed to be elevated during periods of intense communication between hippocampal neurons, which was associated with positive learning outcomes. Therefore, it has a crucial role in modulating synaptic plasticity, regulating gene expression, and responding to oxidative stress. **CONCLUSION:** Therefore, it is clear that there is a direct link between p53 protein and autism-like behaviors in mice, since studies suggest that regulation of p53 expression plays an important role in neural development, modulation of social behavior, repetitive behaviors, and hippocampus-dependent learning. However, the lack of long-term, randomized, multicenter studies in humans still poses a challenge to fully elucidate the complex interaction between p53 and the molecular pathways associated with autism, as well as its potential therapeutic target.

**09. THE USE OF COMPLEMENTARY TESTS TO HELP DIAGNOSE AND DETECT ENDOMETRIOSIS**

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**INTRODUCTION:** Endometriosis is characterized by the ectopic growth of endometrial tissue outside the uterine cavity, often presenting a variety of signs and symptoms common to other disorders, making clinical diagnosis challenging. As a result, complementary diagnostic tests are essential to confirm the diagnostic hypothesis with greater accuracy. With this in mind, this study aims to analyze the contributions of complementary tests in the diagnosis and detection of endometriosis. **METHODS:** This is an integrative review based on the PRISMA protocol. The descriptors used in the search were “endometriosis”, “exam”, “diagnostic”, “diagnosis” and “findings” across the Scielo, Pubmed and Lilacs databases, for articles published in the last 5 years, without language restrictions. Studies without open access, reviews, case reports, duplicates and those not addressing the role of complementary exams in the context of endometriosis were excluded. **RESULTS:** A total of 151 articles were found, of which 7 met the inclusion and exclusion criteria and were included in this review. The studies show that the gold standard for diagnosing endometriosis is videolaparoscopy (VL). However, transrectal ultrasound (TRUS), transvaginal ultrasound (TVUS), and magnetic resonance imaging (MRI) are more suitable for assessing endometrial deposits in the rectum or distal sigmoid. TVUS, being non-invasive and widely accessible, was highlighted for its contribution to detection, with sensitivity rates ranging from 50% to 100% depending on the anatomical site. One study demonstrated a prediction of 76% for laparoscopic findings of deep infiltrating endometriosis. MRI was found to be equivalent to VL in 87.6% of cases for detecting endometriosis, showing good agreement between MRI and VL according to the Kappa index. Additionally, the sensitivity of 3D white-light images in VL was significantly better than conventional 2D images; the absence of ultrasound findings does not definitively rule out the disease; and the presence of a suggestive lesion is highly predictive of endometriosis. **CONCLUSION:** Among the complementary exams for diagnosing endometriosis, VL stands out as the gold standard, while TVUS and MRI can also be utilized. Furthermore, TVUS and transrectal ultrasound, as well as MRI, are more appropriate for assessing certain extrauterine endometrial deposits. Therefore, complementary exams should be further explored to promote the detection of endometriosis and contribute to the early treatment of this condition.

**10. THERAPEUTIC APPROACH TO POLYCYSTIC OVARIAN SYNDROME IN ADOLESCENTS**

Ana Clara Rosa Silva dos Santos<sup>1</sup>, Leandro Ortegá Milhomem Freire<sup>1</sup>, Emille Bianca Rocha Campos<sup>1</sup>, Danilo Coutinho Franco<sup>1</sup>, Jessikelly Santos da Silva<sup>1</sup>, Janaina Maiana Abreu Barbosa<sup>1</sup>.

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**INTRODUCTION:** Polycystic Ovary Syndrome (PCOS) is a disorder originating from the endocrine system, with a pathophysiology that is not fully understood, encompassing genetic and environmental factors. The syndrome is defined by chronic anovulation and hyperandrogenism, affecting women of reproductive age, with an estimated prevalence of 5% to 15%. Due to the diverse clinical picture, PCOS treatment is dynamic, characteristic and depends on the demands of each woman, based on the clinical manifestations of the various organs and systems affected. In relation to adolescents, treatment is closely associated with their main clinical presentations, so that the use of combined oral contraceptives continues to be the most common form of treatment. The use of this therapy is aided by lifestyle changes that promote healthy habits, such as healthy eating and physical exercise, with the aim of losing weight. Therefore, this study aims to analyze the types of therapies available for the treatment of PCOS in adolescents. **METHODS:** A systematic literature review was carried out covering the years from January 2020 to June 2024, in the PubMed, Scielo and Lilacs databases, using the following descriptors: treatment, Polycystic Ovary Syndrome and adolescent. Thirty articles were selected for reading the title, and duplicate articles in the journals and without a direct relation to the research topic were excluded. **RESULTS:** According to the literature, current therapy is symptomatic in nature. Thus, the combination of contraceptives and Myo-inositol is a valid option for the treatment of PCOS in adolescents. It was also found that targeted treatment can reach adipose tissue and restore the metabolic profile of patients with PCOS. In addition, adherence to a healthy lifestyle, with a balanced diet and physical exercise, are actions that help with ovulatory restoration and fertility protection. Finally, it was observed that the treatment of hyperandrogenism is of great importance through the control of hirsutism, which is achieved by reducing the production of endogenous androgens and through non-hormonal techniques, such as cosmetic depilatories. **CONCLUSION:** Therefore, it is clear that polycystic ovary syndrome is a disease with a multifactorial and poorly understood pathophysiology that affects women of reproductive age. Thus, the treatment of this disease is specific to the clinical manifestations of each patient. The treatment of choice for adolescents is symptomatic.

**12. VASORELAXANT ACTION OF *Fridericia platyphylla* ON RAT AORTIC RINGS**

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**INTRODUCTION:** Pharmacological therapy for cardiovascular diseases is linked to significant side effects. There is therefore interest in finding more therapeutic options with greater tolerance of these effects. Relevant alternatives are bioprospecting studies with plant species. This study aims to elucidate the mechanism of relaxant action of the Hydroethanolic Extract of *Fridericia platyphylla* (HEFP) in isolated rat aortic rings. **METHODS:** Male, normotensive, adult *Rattus norvegicus* rats of the Wistar strain were used. Three centimeters of the thoracic aorta were isolated and the viability of the contractility of aortic rings with or without endothelium was tested. After this, to study the vasorelaxation of HEFP, an arterial pre-contraction induced by 0.03mM phenylephrine (PHE), a full alpha-adrenergic agonist, was carried out, followed by the addition of the extract and cumulative concentration-response curves were obtained for HEFP at concentrations of 0.01, 0.1, 0.5, 1.0 and 2.5 mg/mL, for arteries with and without endothelium. In addition, to assess the vasorelaxant action via potassium channels, the artery preparations were again pre-contracted by PHE, in the absence or presence of 1mM tetraethylammonium (TEA), a non-selective potassium channel blocker. Cumulative concentration-response curves were then obtained for HEFP at the same concentrations as before. The protocols expressed are approved by the Ethics Committee for the Use of Animals, under number 23115.019856/2023-61. **RESULTS:** The evaluation of the arterial response to HEFP with and without endothelium showed that vasorelaxation was endothelium-independent and concentration-dependent, with 100% relaxation at 2.5 mg/ml. As for the vasodilator effect of HEFP induced by PHE with and without TEA, it was also observed to be concentration-dependent, showing 100% relaxation at 2.5 mg/ml, and there were no significant differences when comparing the two curves. Thus, it can be inferred that HEFP does not have a vasodilator action through a mechanism of action via potassium channel blockade. **CONCLUSION:** The present study contributes to inferring the biological potential of *Fridericia platyphylla* on the cardiovascular system, showing that HEFP has an endothelium-independent vasorelaxant action in a concentration-dependent manner, and that vascular relaxation does not occur by blocking potassium channels. Further studies are needed to elucidate the mechanisms of vasorelaxation.

**13. ACCIDENTS INVOLVING POISONOUS ANIMALS IN MARANHÃO: AN ANALYSIS FOR PUBLIC HEALTH**

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**INTRODUCTION:** Accidents involving poisonous animals pose a significant challenge for public health in Brazil, a country with vast biodiversity encompassing a wide range of species. The epidemiological analysis of these accidents is crucial for guiding the prioritization of necessary measures and resources to address this Brazilian reality. In this context, this study aims to outline the epidemiological profile of accidents involving poisonous animals in the state of Maranhão. **METHODS:** This is a retrospective and quantitative epidemiological study utilizing data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population includes cases of accidents involving poisonous animals in Maranhão from 2019 to 2023. The analyzed variables include the number of cases, year of treatment, health macroregion, sex, color/race, age group, and type of accident. As these are publicly accessible data, it was not necessary to submit the study to an Ethics and Research Committee. **RESULTS:** During the studied period, 41.647 accidents involving poisonous animals were reported in Maranhão. The year 2022 recorded the highest number of cases, with 5.568 reports (13,37%). Males were more affected, totaling 27.199 cases (65,31%), while females accounted for 14.447 cases (34,69%). The age group most affected was 20 to 39 years, with 14.393 cases (34,56%), followed by the 40 to 59 age group with 10.895 cases (26,17%). The majority of cases occurred among mixed-race individuals, totaling 31.921 records (76,65%), followed by whites (7,60%) and blacks (7,49%). Snake bites, due to the state's location and vegetation, were the most frequent, with 18.912 cases (45,42%). Second, scorpion stings were reported in 15.911 cases (38,21%), followed by spider bites with 2.217 notifications (5,33%). **CONCLUSION:** This study identified the predominant epidemiological profile of accidents involving poisonous animals in Maranhão, highlighting a higher prevalence among males, especially mixed-race individuals, and in the age group of 20 to 39 years. Snake bites were the most common occurrences, followed by scorpions and spiders. These findings underscore the need for preventive strategies, such as educational programs, to mitigate the incidence of these accidents in the region.

**15. AGENESIS OF THE INFERIOR VENA CAVA AND DEEP VEIN THROMBOSIS: A LITERATURE REVIEW**

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**INTRODUCTION:** Agenesis of the inferior vena cava (IVC) is a rare congenital anomaly characterized by the absence of the vessel. Its most common cause is dysgenesis during embryogenesis, but it may also be related to intrauterine or perinatal thrombosis, and it may or may not be associated with other congenital malformations. This malformation has recently been identified as a significant risk factor for the development and recurrence of deep vein thrombosis (DVT) of the lower limbs, especially in young individuals. The objective of this study is to analyze the relationship between inferior vena cava malformation and cases of deep vein thrombosis. **METHODS:** This is an integrative literature review conducted in July 2024 through scientific articles collected from the electronic databases PubMed and SciELO, using the descriptors "agenesis of the inferior vena cava," "deep vein thrombosis," and "cardiovascular abnormalities". **RESULTS:** The development of the venous system during embryogenesis is a complex process in which a process of growth, regression, and anastomosis of three pairs of veins (posterior cardinal, subcardinal, and supracardinal) forms the inferior vena cava. If the originally paired structures do not unite between the sixth and eighth weeks of gestation, malformations such as IVC agenesis may occur. Frequently, the diagnosis of venous malformation is incidental, occurring during abdominal surgeries or radiological procedures in which the patient does not present symptoms; in these cases, collateral circulation develops from the lumbar, azygos, and hemiazygos systems, compensating for the function of the malformed IVC. However, if the collateral venous network fails, the slow flow in the lower limbs and pelvis leads to venous stasis and a greater propensity for DVT (especially in the iliac and femoral veins), with a high recurrence rate in these patients. **CONCLUSION:** It is concluded that congenital anomalies of the IVC are risk factors for the development of deep vein thrombosis, especially in the lower limbs, as inadequate venous return contributes to venous stasis. Regarding treatment, surgical intervention is rarely indicated, with full anticoagulation recommended as the ideal treatment.

**16. GLP-1 AGONISTS AND THEIR BENEFITS IN INDIVIDUALS WITH CARDIOVASCULAR DISORDERS**

João Pedro de Pinho Carvalho Peixoto<sup>1</sup>, Aldemir Santos Gonçalves Neto<sup>1</sup>, Antonio Carlos Medeiros Filho<sup>1</sup>, João Guilherme Souza Mota<sup>1</sup>, Júlio Ricardo Avelar Amorim<sup>1</sup>, Juscelino Silva Machado Filho<sup>1</sup>, Rachel Melo Ribeiro<sup>1</sup>.

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**INTRODUCTION:** The GLP-1 (glucagon-like peptide 1) receptor agonists are therapeutic agents indicated for the treatment of type 2 diabetes mellitus (DM2), and its main action is to produce insulin-like effects, thus regulating blood glucose levels. Recent studies have indicated these drugs as relevant in cardiovascular (CV) health. Therefore, this study analyzed cardiovascular outcomes of GLP-1 receptor agonists. **METHODS:** This study is a systematic review of literature to analyze the benefits of GLP-1 agonists in patients with cardiovascular disorders. The search was performed in PubMed, Scielo and Google academic databases. The articles were selected by the language, english and portuguese, published from 2016 to 2023. The exclusion criteria included articles in other languages and published before 2016. In the search, 15 articles were found, 3 of which met the inclusion criteria by having representative samples, analysis methodology and focused on the cardiovascular outcomes related to GLP-1 agonist use. **RESULTS:** Studies of GLP-1 analogues have shown positive CV effects with variations between the different types. Liraglutide and exenatide reduce systolic blood pressure (SBP) by approximately 6.20 mmHg. Liraglutide promotes a reduction in triglycerides by 28.34 to 26.57 mg/dL, accompanied by lower low-density lipoprotein (LDL-c) among patients. Liraglutide and empagliflozin in association showed efficacy in the treatment of patients with DM2 and high CV risk, with empagliflozin being more beneficial in relation to mortality from cardiovascular causes in patients with body mass index (BMI) < 30 > 50 years and BMI > 30 kg/m<sup>2</sup> or glomerular filtration rate (GFR) < 60 mL/min/1.73m<sup>2</sup>. **CONCLUSION:** Therefore, it is deduced that the use of GLP-1 receptor agonists has significant cardiovascular effects and could be an interesting treatment for patients with cardiovascular disease, given their effects in reducing the rates of major cardiovascular events, as well as significant effects in the treatment of patients with type 2 diabetes mellitus and obesity.

**18. BREASTFEEDING AS A PROTECTIVE FACTOR FOR BREAST CANCER: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Breast cancer is the most prevalent cancer among women in Brazil, representing a serious public health concern due to its high incidence and mortality rates. The search for prevention strategies is essential to reduce morbidity and mortality from this disease. Scientific evidence points to breastfeeding as a protective factor against breast cancer. By promoting hormonal and cellular changes in the breasts, lactation reduces the risk of developing cancer cells. Thus, the objective of the study is to: analyze the reduction in estrogen levels during breastfeeding and its protective factor against breast cancer. **METHODS:** This study used Integrative Literature Review to gather and summarize scientific knowledge about the relationship between breastfeeding and breast cancer. The guiding question was: what is the relationship between breastfeeding and breast cancer? Six electronic articles published in the last 5 years were selected using the Scielo, PubMed and Lilacs databases. The descriptors used were: Breastfeeding and protective factor, breastfeeding, breast cancer and estrogen. **RESULTS:** According to research, during pregnancy and lactation, the mammary glands undergo maturation, favoring a condition of cellular stability that reduces susceptibility to the development of cancer. This process includes an increase in the number of secretory epithelial cells and the reorganization of breast tissue. After breastfeeding, mammary involution occurs, which is the process of returning the glands to their pre-pregnancy state. This process involves apoptosis (programmed cell death) and the removal of cells with possible DNA damage, which can reduce susceptibility to breast cancer, in addition to strengthening the maternal-fetal bond. **CONCLUSION:** During breastfeeding, there is a significant reduction in estrogen levels due to the suppression of menstrual cycles, which reduces exposure to this hormone associated with the growth of malignant cells in breast tissue. Prolonged lactation is linked to a lower risk of breast cancer, not only due to its nutritional and immunological benefits for the baby, but also due to its protective potential for maternal breast health.

**19. BIBLIOMETRIC ANALYSIS OF THE PROFILE OF BRAZILIAN PUBLICATIONS IN ANESTHESIOLOGY**

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**INTRODUCTION:** The first documented general anesthesia in Brazil occurred in 1847, performed by Dr. Haddock Lobo at the military hospital in Rio de Janeiro. Since then, the scientific development of anesthesiology in Brazil has become essential. However, the real impact of scientific productions authored by Brazilians is still unknown due to the scarcity of studies evaluating this parameter. Therefore, this work aimed to understand the profile of Brazilian authorship publications in the most cited international anesthesiology journal. **METHODS:** For the search of articles, the Scopus database (Elsevier) was utilized. The journal with the highest CiteScore, *Anaesthesia*, with a CiteScore of 21.2, was analyzed. Publications from the period of 2004 to 2024 that had Brazilian authorship or co-authorship were included. Regarding the variables, the total number of publications, the average number of publications in the first and second decades, the most prevalent study design, the most active Brazilian states, and the countries that collaborated most with Brazil were examined. **RESULTS:** A total of 28 studies were identified, of which 7 were published between 2004 and 2013, while the remaining 21 articles are from the period of 2014 to 2024. The prevalent study design was Letters (28%). The most active state was São Paulo, with 39% of the publications. The country that collaborated most with Brazil for scientific production in anesthesiology was Canada, but only 9 articles resulted from international collaboration with Brazil. **CONCLUSION:** The study shows a satisfactory increase in Brazilian publications in anesthesiology from the first to the second decade. However, there is still a need to encourage impactful research in anesthesiology in Brazil, as a reduced number of publications are at the top of the evidence pyramid, in addition to fostering scientific production in a greater diversity of medical institutions in the country, also seeking international collaboration.

**20. COMPARATIVE ANALYSIS OF DIABETES MELLITUS MORTALITY IN THE REGIONS OF BRAZIL IN 2022**

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**INTRODUCTION:** Diabetes Mellitus (DM) represents a chronic health condition that affects a large number of individuals worldwide and is one of the leading causes of morbidity and mortality. In Brazil, the incidence of diabetes has increased substantially, posing a significant challenge to public health. The aim of this study is to evaluate the mortality caused by Diabetes Mellitus in different regions of Brazil during the year 2022. **METHODS:** This is an observational, descriptive, and quantitative study on the mortality of hospitalizations due to DM in the regions of Brazil in the year 2022. Data were collected from the Mortality Information System (SIM) database, managed by the Department of Informatics of the Unified Health System (DATASUS), and then classified into type 1 diabetes mellitus (DM1) and type 2 diabetes mellitus (DM2). The R software was used for prevalence analysis. **RESULTS:** Based on the data collected, 24,081 deaths from DM were reported in Brazil in 2022, with 66% of cases (n=16,087) related to type 2 diabetes mellitus (DM2) and 31.54% (n=7,596) to type 1 diabetes mellitus (DM1). The highest concentration of deaths from DM2 was in the Northeast, with around 4,980 cases, while the highest concentration of DM1 deaths was in the South, with 2,424 cases. Regarding the absolute distribution of deaths from diabetes mellitus across the macro-regions, the Northeast and the Central-West presented the highest and lowest numbers, representing 29.33% of cases (n=7,063) and 6.15% (n=1,482), respectively. However, in terms of relative distribution, the South had the highest number of occurrences, corresponding to 22.22 cases per 100,000 inhabitants, followed by the Northeast with 12.75 cases, and the Southeast with the lowest prevalence, at 7.7 cases per 100,000 inhabitants. **CONCLUSION:** The study reveals that mortality from DM was more significant in the Northeast region, with particular emphasis on this region for deaths specifically from DM2, while the South region leads the ranking for deaths from DM1. It was also found that the relative distribution of DM mortality differs among the regions studied, with the South standing out for having the highest number of deaths from this chronic disease per 100,000 inhabitants. Therefore, it is concluded that the regional particularities identified should be considered in the implementation of effective health policies for the treatment and control of diabetes in the country.

**21. COMPARATIVE ANALYSIS OF ADMISSIONS FOR CHOLELITHIASIS AND CHOLECYSTITIS: MARANHÃO AND BRAZIL**

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**INTRODUCTION:** Cholelithiasis, the formation of stones resulting from the accumulation of cholesterol precipitated in the gallbladder, is commonly asymptomatic. However, this condition is the main aggravating factor for acute inflammation of the organ, cholecystitis, due to obstruction of the bile pathway. From 2012 to 2021, in the Brazilian Northeast, 8,263 deaths were recorded from both conditions. Despite their severity, these pathologies are often neglected in states with the greatest public health needs, such as Maranhão (northeast). Therefore, the objective of this study is to analyze the epidemiological profile of hospitalizations for cholelithiasis and cholecystitis in Maranhão so as to help in the development of public prevention and treatment policies in the state. **METHODS:** Cross-sectional, descriptive and analytical epidemiological study with a quantitative approach using data obtained from the Ministry of Health/Hospital Morbidity of the SUS - Hospital Admissions System (SIH/SUS), available at the Department of Information and IT of the SUS (DATASUS), at period from 2018 to 2023. National and state data (Maranhão) on cholelithiasis and cholecystitis will be collected, with the aim of carrying out subsequent comparative analysis. **RESULTS:** Considering the data collected in DATASUS, it is observed that between 2018 and 2023, a total of 52,717 hospitalizations for cholelithiasis and cholecystitis were recorded in Maranhão and 1,631,585 throughout Brazil. The highest incidence of these hospitalizations in individuals over 20 years of age in Maranhão compared to the national figure stands out, between 2018 and 2022, with 2023 being the only year in the last 6 years in which the incidence in the state was below the national average. Furthermore, it is noted that females have the highest incidence of this type of hospitalization, regardless of age and year observed. In the state of Maranhão, 78.1% of hospitalizations for cholelithiasis and cholecystitis are female patients, following a national trend of 76.3% incidence in women. **CONCLUSION:** In this sense, it is notable that the incidence of cholelithiasis and cholecystitis in the state of Maranhão remained higher than the national average for most of the period analyzed, making individualized attention necessary for the state. Added to this, the results found in which a higher incidence of cases in females is noted opens the way for new studies that focus on detailed investigation into the determinants of high incidence, as by identifying them, it will be more viable to reduce the hospitalization cases.



**22. COMPARATIVE ANALYSIS: LOWER INVASIVENESS OF APPENDECTOMY IN MARANHÃO BY SUS (2018-2023)**

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**INTRODUCTION:** Acute appendicitis is the most common abdominal surgical emergency in the world, with a lifetime risk of 8.6 percent in men and 6.9 percent in women. For over a century, open appendectomy has been the standard treatment for appendicitis. Contemporary treatment has become more sophisticated and systematic, with laparoscopic appendectomy surpassing open appendectomy in usage. This summary aims to analyze and compare the rates of laparotomies and videolaparoscopies performed between 2018 and 2023 in the state of Maranhão. **METHODS:** This is a quantitative and comparative cross-sectional study using secondary data from the public DATASUS database regarding the surgical management of acute appendicitis, focusing on the type of surgical procedure performed: laparotomy or videolaparoscopy in patients treated by SUS in the state of Maranhão between 2018 and 2023. The study employs absolute rate analysis, without specifications by age group, gender or race. **RESULTS:** Considering the high rates of appendectomies in Maranhão, it can be understood that the low human development index, along with reduced access to the Sistema Único de Saúde (SUS), may worsen the situation for appendicitis, given that delays in appendectomy exceeding 48 hours increase the risk of surgical site infections and other complications. A comparative analysis from 2018 to 2023 reveals that there were 22,351 hospitalizations for appendectomies in the SUS of Maranhão. Of this total, 97.72% were performed via laparotomy and 2.28% via videolaparoscopy. The years when both approaches were closest were 2019 and 2023, with videolaparoscopy accounting for approximately 4.4% and 3.7%, respectively, of surgical hospitalizations for appendectomy. **CONCLUSION:** Patients treated with laparoscopic appendectomy experience fewer wound infections, less pain, and shorter hospital stays, but more intra-abdominal abscesses and longer operation times. This study observes that videolaparoscopic appendectomy is already widely used in other parts of the country and the world. However, in the state of Maranhão, its implementation is slow, likely due to logistical and financial barriers.

**23. ANALYSIS OF THE SPREAD OF CHILDHOOD HANSEN'S DISEASE IN MARANHÃO IN RELATION TO THE NORTHEAST (2018-2023)**

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**INTRODUCTION:** Hansen's disease is a chronic infectious disease that, although curable, remains endemic in various regions of the world. It is caused by *Mycobacterium leprae* (*M. leprae*), with untreated individuals with high bacillary loads serving as the primary source of infection through the elimination of bacilli via the respiratory tract. Although Hansen's disease is rare in childhood, the age group of 10 years old is the most affected due to the long incubation period of the disease, averaging 5 to 7 years. Thus, the above study aims to analyze the epidemiological profile of Hansen's disease in children in Maranhão in relation to the Northeast region.

**METHODS:** This is an analytical and descriptive study based on data provided by the Department of Informatics of the Unified Health System (DATASUS) between the years 2018 and 2023. The parameters used included the frequency, the number of vaccines administered, the number of skin lesions, the contacts examined, and those registered.

**RESULTS:** In the state of Maranhão, 649 cases (40.7%) of Hansen's disease in children aged 0 to 14 years were recorded over the period of 2018 to 2023. Meanwhile, the Northeast region reported 1597 cases over the same period. Additionally, regarding the number of vaccine doses administered, Maranhão recorded 5004 doses (46.4%), while the Northeast region accounted for 10770 doses. As for skin lesions, children in Maranhão presented 3659 lesions (43.1%), whereas 8492 lesions were reported in the Northeast. Regarding registered contacts, 2555 contacts were recorded in Maranhão, compared to 5994 in the Northeast. Finally, in terms of examined contacts, Maranhão reported 2217 contacts examined, while the Northeast region had a total of 4402 contacts examined.

**CONCLUSION:** In summary, Maranhão has a significant influence on the rates of Hansen's disease in children in the Northeast. This information highlights the high incidence of Hansen's disease in children in Maranhão and underscores the need for public health actions focused on early detection.

**24. ANALYSIS OF THE EVOLUTION OF PUBLICATIONS IN ANESTHESIOLOGY IN BRAZIL: A BIBLIOMETRIC STUDY**

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**INTRODUCTION:** Scientific production is an essential reflection of the development and evolution of specific areas of knowledge, especially in medical fields such as anesthesiology. Although it is a vast specialty in terms of the diversity of publications, there is still a scarcity of studies analyzing the evolution of Brazilian participation in published articles. Therefore, this study aims to analyze Brazil's contribution to international scientific literature in the field of pain and anesthesiology. **METHODS:** The Scopus database (Elsevier) was used to search for articles. The search was carried out using the filters for journals in Anesthesiology and Pain Medicine, location in Brazil and limitation to the period between 2004 and 2023. The five journals with the highest CiteScore were analyzed. The variables analyzed were: the average number of publications in the first and second decade, the total number of publications and the definition of the Brazilian states with the greatest contributions. **RESULTS:** During the period outlined, 411 articles were identified that had national participation in 5 high-impact journals in the field of pain and anesthesiology. The analysis showed that in the first decade, between 2004 and 2013, 143 articles were published, totaling an average of 14.3 articles per year. In comparison, in the following decade (2014-2023), 196 articles were published, adding 53 articles to the previous decade's total and totaling an average of 19.6 publications per year. This scenario shows a percentage increase of approximately 37% and demonstrates a positive growth in the study of this area in the country. It is worth noting that the Brazilian state with the highest number of publications was São Paulo, responsible for 153 publications during the years studied, followed by Rio de Janeiro and Rio Grande do Sul, respectively. **CONCLUSION:** It can therefore be concluded that anesthesiology is an area with growing study potential in Brazil. The increase in the quantity and quality of publications shows the continuous development of anesthesiology research in Brazil, contributing to the improvement of clinical practices and the international recognition of Brazilian researchers. Despite this growth, there is a need for continued promotion and encouragement of research in this area, in order to strengthen the generation of knowledge in the medical field and promote greater scientific evidence to improve quality of life.

**25. ANALYSIS OF MORTALITY DUE TO SEPSIS IN MARANHÃO: A DESCRIPTIVE STUDY FROM 2013 TO 2022**

Cácio Laylson Lira Silva<sup>1</sup>, Francisca Erika Ferreira Sousa<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Ana Luiza Espínola Lobo<sup>1</sup>, João Vítor Albuquerque e Silva<sup>1</sup>, Louisa Ferreira Carvalho<sup>1</sup>, Wellyson da Cunha Araujo Firmo<sup>1</sup>.

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**INTRODUCTION:** Sepsis is characterized by the occurrence of a systemic inflammatory response syndrome with organ dysfunction, triggered by an inadequate reaction to infection. It affects people of all ages; however, it is more common in newborns, the elderly, and those with some degree of immune system deficiency. Sepsis is the most common cause of admission to non-coronary intensive care units. In this context, the present study aimed to analyze the epidemiological profile and mortality rates of patients hospitalized for sepsis in the state of Maranhão between 2013 and 2022. **METHODS:** This is a descriptive, cross-sectional analysis with a quantitative approach, using data from the Informatics Department of the Unified Health System. The variables analyzed were: the number of hospitalizations, sex, race, age group, deaths, and mortality rate from 2013 to 2022. Statistical analysis was performed using SPSS 25.0 for Windows software, with Kendall's Tau-b and chi-square tests, adopting a significance level of 5%. **RESULTS:** During the study period, 16,477 patients were hospitalized with sepsis in Maranhão. Of these, 53.56% were male, while 46.44% were female. Regarding the number of deaths, 6,997 were recorded, with 3,662 (52.34%) being male and 3,335 (47.66%) female. Statistical analysis revealed a positive and significant correlation between the number of hospitalizations and deaths ( $\tau = 0.644$ ;  $p = 0.009$ ). The mortality rate of patients hospitalized for sepsis in the state was 42.46%. The most affected age group was 80 years or older (58.32%), followed by 70 to 79 years (52.87%), 60 to 69 years (47.92%), and 50 to 59 years (44.05%). The mixed-race group showed a high mortality rate (43.06%), followed by the white (42.89%) and indigenous (41.54%) groups. **CONCLUSION:** The impact of sepsis on public health is significant, as evidenced by the high mortality rates. Therefore, it is essential to emphasize preventive measures, early diagnosis, and appropriate interventions as fundamental steps for better outcomes.

**26. ANALYSIS OF PERIPHERAL VASCULAR ANGIOPLASTIES PERFORMED IN BRAZIL BETWEEN 2014 AND 2023**

Guilherme Kauan Rocha Dantas<sup>1</sup>, Anna Victoria Marques Sousa Pirajá<sup>2</sup>, Bruno Oliveira de Sousa Lima<sup>2</sup>, Emanuele Camile Cardoso Carvalho<sup>1</sup>, Gabriel de Meneses Mendes<sup>1</sup>, Tiago de Aguiar Lima<sup>1</sup>, Carlos Alberto da Silva Frias Neto<sup>2</sup>.

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**INTRODUCTION:** Peripheral artery disease (PAD) is a common and significant public health issue, affecting over 200 million patients worldwide. Endovascular interventions, including balloon angioplasty and stent placement, have become the primary therapy for PAD. This study aimed to analyze data related to peripheral vascular angioplasties performed in Brazil from 2014 to 2023 to characterize the current landscape of angioplasties in the country. **METHODS:** This is a cross-sectional, descriptive study with a quantitative approach and a retrospective analysis of records obtained between 2014 and 2023. Data collection was conducted using the Hospital Information System of the Unified Health System (SIH-SUS) from the TABNET database. The following procedures were selected: intraluminal angioplasty of peripheral vessels without stent, intraluminal angioplasty of peripheral vessels with uncovered stent, and intraluminal angioplasty of peripheral vessels with covered stent. The variables analyzed included region, mortality rate, and average length of stay. **RESULTS:** The results showed that there were 86,596 peripheral vascular angioplasties during the analyzed period. There was a 50% increase in the number of angioplasties performed in 2023 compared to 2014. Regarding the type of angioplasty, angioplasties without stents represented 63.91% of the total, uncovered stent angioplasties represented 35.39%, and covered stent angioplasties accounted for 0.7%. Most procedures took place in the Southeast region, comprising 39.76% of the total, followed by the South region (31.57%) and Northeast region (23.04%). The mortality rate during the analyzed period was 1.09 per 100 patients for angioplasties without stents, 1.05 per 100 patients for uncovered stent angioplasties, and 2.12 per 100 patients for covered stent angioplasties. In terms of average hospital stay, angioplasties without stents had an average stay of 4.7 days, uncovered stent angioplasties had an average of 4.5 days, and covered stent angioplasties had an average stay of 6.1 days. **CONCLUSION:** There has been an increase in the number of angioplasties performed in Brazil, which may be partly related to greater incorporation of new technologies by health systems. Furthermore, it is observed that angioplasties without the use of stents are currently the most commonly performed in the country.

**27. ANALYSIS OF HOSPITALIZATIONS FOR MALIGNANT INTESTINAL NEOPLASMS IN ADULTS OVER 25 YEARS OF AGE**

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**INTRODUCTION:** Bowel malignant tumors have a hereditary and epigenetic etiology, linked to the activation of oncogenes, such as KRAS (Kirsten rat sarcoma virus), and mutations in oncosuppressor genes, such as TP53, causing high cell proliferation and invasion of adjacent tissues. In this context, the National Cancer Institute (INCA) warns that Brazil is subjected to a risk of approximately 21 cases of intestinal cancer for every 100 thousand Brazilians in the next 3 years, therefore highlighting the need to draw up an adequate epidemiological profile for the creation of policies in Primary Care (PC). **METHODS:** Cross-sectional, descriptive study with a quantitative approach using data obtained from the Ministry of Health/Hospital Morbidity of the Unified Health System - Hospital Admissions System (SIH/SUS), available at the Department of Information and Informatics of the SUS (DATASUS), in the period 2018 to 2023. The following variables were collected: ICD-10 Morbidity List (Group C18, C19, C20 and C21, referring to malignant neoplasia of the colon; rectosigmoid junction; rectum; and anus and anal canal, respectively), macroregions, age group (Brazilians aged 25 and over), sex and deaths. **RESULTS:** 452,771 hospitalizations were reported in the defined period and age group, with malignant colon neoplasm (C18) representing around 61.35% (277,785 cases) of the total, and the other three groups accounting for the remainder. In the annual record of cases, the year 2023 accounts for the highest number of notifications (97,132), followed by 2022 (96,521) and 2021 (87,385). At a regional level, the southeast has 207,018 hospitalizations, followed by the south (145,661) and northeast (63,998). Elderly people aged 60 to 64 were most hospitalized (71,385 cases), followed by those aged 65 to 69 (69,325) and adults aged 55 to 59 (64,182). Males slightly prevailed over females, with ≈50.8% (229,877) and ≈49.2% (222,894) of cases, respectively. Finally, there were 35,975 deaths, with the year 2023 again starring (7,576), and colon cancer accounting for ≈63% (22,664) of deaths, followed by other neoplasms. **CONCLUSION:** Given this, there is a need to understand the genetic and epigenetic factors that contribute to the high number of hospitalizations for these malignant neoplasms in Brazil, focusing on middle-aged and elderly populations, and in regions with possible underreporting, in order to define effective and targeted actions in prevention, early diagnosis and treatment strategies.

**28. ANALYSIS OF HOSPITALIZATIONS FOR PULMONARY THROMBOEMBOLISM IN MARANHÃO: 2013-2023**Ana Letícia Pacheco de Sousa<sup>1</sup>, Marcos Vinicius da Costa Vilela<sup>1</sup>, Fernando Viana de Azevedo Naves<sup>2</sup><sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Resulting from obstruction of one or more branches of the pulmonary artery, it is by definition a type of venous thromboembolism (VTE). In a global scenario, pulmonary thromboembolism (PTE) represents the third place in cases of cardiovascular deaths, in addition to occupying the first position in cases of preventable deaths in hospitalized patients. The objective of the present study is to analyze hospital admissions due to PTE 2013-2023. **METHODS:** This is an ecological, cross-sectional, descriptive study with a quantitative approach. Data collection was carried out through the Information Technology Department of the Unified Health System (DATASUS), based on the variables: number of hospitalizations, sex, color/race, age group, deaths and mortality rate. **RESULTS:** During the years researched, 2013 to 2023, 820 hospitalizations for pulmonary embolism were recorded, with a mortality rate of 20.37%. As for sex 50.97% hospitalizations were male and 49.03% were female, with no prevalence between genders. The mixed ethnicity had a higher proportion of hospitalizations (32.19%). The most affected age group was 50 to 79 years old, comprising 43.17% of cases. The average hospital stay was 9.8 days, totaling 8047 days of hospitalization. The total cost of hospitalizations was 1,612,494.31, with an average value of 1,966.46 per hospitalization. Statistical analysis revealed a positive and significant correlation between the number of hospitalizations and deaths ( $\tau = 0.644$ ;  $p < 0.009$ ). Furthermore, the Chi-square test of independence showed the association between race and age group in the number of hospitalizations ( $p = 0.001$ ). **CONCLUSION:** The results of this study highlight the importance of epidemiological analysis of hospitalizations for PTE in Maranhão, especially among the elderly and mixed-race population. An early and targeted approach to high-risk patients, even in primary care, is essential to reduce future hospitalizations, minimize costs and prevent deaths resulting from PTE.

**29. ANALYSIS OF MATERNAL DEATHS IN THE YEAR 2021 TO 2022 IN MARANHÃO**Ana Clara Rosa Silva dos Santos<sup>1</sup>, Leandro Ortegá Milhomem Freire<sup>1</sup>, Emille Bianca Rocha Campos<sup>1</sup>, Danilo Coutinho Franco<sup>1</sup>, Janaina Maiana Abreu Barbosa<sup>1</sup><sup>1</sup> University Center of Maranhão

**INTRODUCTION:** In 1992, the World Health Organization (WHO), through the 10<sup>th</sup> revision of the International Classification of Diseases (ICD-10), established maternal death as that which occurs during pregnancy or up to 42 days after birth, regardless of the duration or location of the pregnancy. Thus, maternal deaths can be divided into two groups: direct or indirect obstetric deaths. Direct obstetric deaths: arise from obstetric complications during pregnancy, childbirth or the puerperium, caused by interventions, omissions or incorrect treatment. Indirect obstetric deaths occur from diseases that exist prior to pregnancy or that develop during this period and are aggravated by the physiological effect of pregnancy. The occurrence of maternal deaths reflects the lack of access to health services and harmful socioeconomic conditions. This study aims to quantify maternal deaths that occurred between 2021 and 2022 in Maranhão, identifying risk groups. **METHODS:** This is an observational, retrospective and analytical study of the quantification of maternal deaths in Maranhão during the years 2021 and 2022. The sample was obtained through the public consultation platform of the Mortality Information System of the Unified Health System (SIM/TabNet Win 32 3.2), with the following parameters: marital status and race. **RESULTS:** In 2021, 146 maternal deaths were reported, with the municipality of São Luís recording 16 deaths and Imperatriz recording 10 deaths. Compared to 2022, the number of deaths fell, with a total of 76 maternal deaths, with emphasis on the municipality of São Luís with 11 deaths and Caxias with 4 deaths. When we analyze marital status, we see that the highest number of deaths is among single women, as in 2021 they represent a rate of 53% of the number of deaths and in 2022, 35.5% of cases. When analyzing the most predominant color in maternal deaths, it is noted that the brown-skinned population is the predominant one, representing 63% in 2021 and 77% of deaths in 2022. **CONCLUSION:** Maternal mortality is a serious and recurring public health problem in the state of Maranhão, especially for single and mixed-race women. Therefore, it is important to monitor and quantify these rates and consider redirecting health policies, since maternal death is preventable in 92% of cases.

**30. BMI ANALYSIS OF PATIENTS WITH T2DM IN A REFERENCE HOSPITAL IN MARANHÃO**

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**INTRODUCTION:** Diabetes mellitus type 2 (T2DM) is a chronic disease characterized by hyperglycemia that results from problems in insulin production and/or resistance to its action. Body Mass Index (BMI) is associated with the development and progression of the disease since overweight and obesity are risk factors and increase morbidity and mortality for T2DM. It is important to emphasize the close relationship between high BMI and chronic inflammation, adipocyte dysfunction and lipotoxicity. The present study aims to analyze the BMI of patients with T2DM from a tertiary hospital in Maranhão. **METHODS:** This is a cross-sectional and quantitative study performed with 321 patients reported with T2DM, treated at the endocrinology reference center in São Luís-MA. Data were collected from medical records in July 2024 to describe and analyze these patients' epidemiological and BMI characteristics. The variables analyzed were sex, age, race, income, weight, and BMI. This study was approved by the Research Ethics Committee of Hospital Universitário da Universidade Federal do Maranhão, with opinion n° 5216774 and Ethical Approval Number: 51633521.2.0000.5086. **RESULTS:** Were analyzed 321 medical records, comprising 21 (6.5%) with normal weight (BMI between 18.5 and 24.9), 127 (39.56%) with overweight (BMI between 25 and 29.9), 96 (29.9%) had grade I obesity (BMI between 30 and 34.9), 49 (15.26%) had grade II obesity (BMI between 35 and 39.9) and 28 (8.72%) had grade III obesity (BMI $\geq$ 40). When considering only the obese patients (BMI $\geq$ 30; n=173), 36.41% (n=63) were between 51 and 60 years old, followed by 32.36% (n=56) who were between 61 and 70 years old; most of them were female (70,52%; n= 122). Regarding the obese individuals, 61.84% (n=107) were of mixed race and the majority were low-income, with 40.69% (n=70) having income between 1.5 and 3 minimum wages, followed by 35.46% (n=61) with less than 1.5 minimum wages. **CONCLUSION:** This study showed a high prevalence of overweight and obesity among patients with T2DM in Maranhão, with more than half having BMI over 30. Most obese individuals were women, of mixed race, aged between 51 and 50, and low-income. These findings highlight the need for public policies focused on obesity and diabetes prevention and treatment, with special attention to the most vulnerable population. Multidisciplinary interventions are essential to improve disease control and patients' quality of life.

**31. ANALYSIS OF THE ECONOMIC IMPACT OF ADMISSIONS FOR POLYTRAUMA IN MARANHÃO IN THE LAST DECENNIUM**

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**INTRODUCTION:** Polytrauma consists of serious injuries to multiple organs or regions of the body, caused by a traumatic event, such as car accidents, falls from heights and physical attacks. In this context, it is noteworthy that between the years 2014 and 2023 there were a total of 18,819 hospitalizations due to trauma in the state of Maranhão. In view of this, it is estimated that 27.9% of the costs of the Surgical Center at the Traumatology and Orthopedics Hospital of Maranhão are allocated to orthopedic materials and prosthetics. Therefore, the present study aims to analyze the economic impacts caused by hospitalizations of polytraumatized patients in the state of Maranhão, between the years 2014 and 2023. **METHODS:** This is a retrospective observational study, with a quantitative and descriptive approach. Data collection was carried out using secondary documentation, registered between 2014 and 2023, in the DATASUS database. The data covers direct spending by the public and private sectors, across the entire administrative area of Maranhão, and has as a parameter the record of hospitalization of patients with polytrauma. As it used only secondary and public data, approval of the study by the Research Ethics Committee was not required. **RESULTS:** A total of 18,819 hospitalizations for polytrauma were found in the state of Maranhão, from 2014 to 2023, recording an average number of hospital admissions of 1,882 patients. During this period, 2014 was the year with the highest number of occurrences, totaling 2,259 hospitalizations (12%), and 2021 was the year with the lowest incidence, with a total of 1,662 hospitalizations (8.83%). Regarding the financial costs for hospitalizations of polytraumatized patients, R\$17,318,698.50 was spent involving the public and private sector, with 2022 being the year with the highest financial cost and 2021 with the lowest cost. The average annual cost for patients suffering from polytrauma was R\$1,500,000.00. Given this, the results indicate a decrease in these expenses in 2019 and 2021. **CONCLUSION:** It is therefore clear that polytrauma has negatively impacted the economy of the state of Maranhão in the last decade, to the extent that the resources invested in managing polytrauma could have been invested in other sectors of the economy, if there had been a reduction in the number of polytraumas. Therefore, there is an indisputable need to implement effective public policies in order to reduce the number of polytraumas and invest public resources to stimulate the state's economic growth.

**32. ANALYSIS OF MORTALITY PROFILE DUE TO MALNUTRITION IN THE ELDERLY IN MARANHÃO FROM 2020 TO 2022**

Leila Mayanne Silva Viana<sup>1</sup>, Rômulo Guilherme Costa de Amorim<sup>1</sup>, Thayanne Gabryelle da Silva Alves<sup>1</sup>, Railany de Sousa da Conceição dos Reis<sup>1</sup>, Lucas Kevyn Cunha de Souza<sup>1</sup>, Guida Graziela Santos Cardoso<sup>1</sup>

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**INTRODUCTION:** Malnutrition occurs when an individual does not obtain sufficient nutrients to meet the body's physiological needs, resulting in nutritional deficits that impair bodily homeostasis. This condition can be multifactorial, arising from a nutrient-poor diet, chronic diseases and poor living conditions. Malnutrition can lead to death, particularly in the elderly due to slower metabolism, abandonment by family, and poverty. Therefore, this study aims to analyze the mortality profile due to malnutrition in the elderly in Maranhão (MA) between 2020 and 2022. **METHODS:** This is a cross-sectional, descriptive, retrospective study with a quantitative approach regarding deaths from malnutrition in the elderly in the state of Maranhão. Data were obtained from the Mortality Information System of the Unified Health System (SIM/SUS), provided by the Department of Informatics of the Unified Health System (DATASUS), between 2020 and 2022. The variables considered in the study included age group, region, sex, education level, race/color and marital status. Since public domain data were used, there was no need for submission to the Ethics Committee for Research. **RESULTS:** Between 2020 and 2022, there were 363 recorded deaths due to malnutrition among the elderly in MA. The year with the highest prevalence was 2022, with 133 deaths (36.63%). The most affected group were individuals aged 80 and older, accounting for 247 cases (≈68.04%). The distribution by sex showed a prevalence of 187 deaths (≈51.52%) in males and 176 (≈48.5%) in females; regarding race/color, the highest prevalence was among mixed-race individuals, with 232 deaths (≈63.9%). Deaths due to malnutrition were recorded in 102 municipalities in Maranhão from 2020 to 2022, with Imperatriz and São Mateus reporting the highest number of cases, 60 (≈16.52%) and 50 (≈13.77%), respectively. Furthermore, there was a predominance of mortality among widowed individuals, with 114 cases (≈31.43%). More than half of the recorded deaths in this social group had no formal education, totaling 200 cases (≈55.1%). **CONCLUSION:** The study found a higher prevalence of deaths due to malnutrition in 2022 among elderly males with no formal education, mixed-race, widowed and aged 80 and over. Therefore, it is crucial to implement interventions targeted at the elderly population and to promote policies that improve nutrition, contributing to a reduction in mortality and an enhancement in the quality of life for this demographic.

**33. ANALYSIS OF EPILEPSY CASES IN MARANHÃO FROM 2014 TO 2024**

Ayrton Rocha Lima<sup>1</sup>, Bianca de Fátima Assunção Sodré<sup>1</sup>, Ingrid Raquel de Sousa Silva<sup>1</sup>, Ingrid Victoria Borges Alberto<sup>1</sup>, Rebeca Thamires Serra Araujo<sup>1</sup>, Isabelly Soares Castro<sup>1</sup>, Maria do Desterro Soares Brandão<sup>1</sup>.

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**INTRODUCTION:** Epilepsy is a relatively common neurological condition that causes epileptic seizures at variable intervals. According to the World Health Organization (WHO), this disease affects approximately 50 million people worldwide, including about 2% of the Brazilian population. In most cases, the diagnosis is made clinically, and treatment can begin in primary care. However, recurrent and difficult-to-control cases may require hospitalization and/or surgical intervention. This study aimed to analyze the epilepsy situation in the state of Maranhão from 2014 to 2024. **METHODS:** This is a descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consists of patients hospitalized in the SUS due to epilepsy in the state of Maranhão, with notifications between January 2014 and May 2024. **RESULTS:** From January 2014 to May 2024, the Maranhão Public Health System recorded a total of 13,136 epilepsy-related hospitalizations. Among the state's macro-regions, the North had the highest number of cases (6,992), followed by the East (3,390) and the South (2,754). Regarding the epidemiological profile, the most affected group was children aged 1 to 4 years, predominantly male and of mixed race. Regarding the nature of the hospitalizations, 961 were elective, while 12,175 were emergencies. Additionally, there were 310 reported deaths, with the highest number in the North region (181), followed by the East (89) and the South (40). The male population had the highest number of deaths (184). **CONCLUSION:** The data analysis revealed a significant number of epilepsy cases in Maranhão, with the North region accounting for the highest concentration. Children, particularly boys of mixed race, were the most affected. Men also accounted for the majority of deaths related to epilepsy. The predominance of emergency care highlights the need for more effective strategies and policies to combat this disease and prevent complications, aiming to improve care and reduce mortality.

**34. ANALYSIS OF MALIGNANT BRAIN NEOPLASM CASES IN MARANHÃO FROM 2014 TO 2024**

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**INTRODUCTION:** Malignant brain tumors are a group of tumors originating from the nerve tissue cells of the brain or brainstem. They are considered rare and account for about 2% of all known cancers. The progression of the pathology varies according to the tumor behavior of the original cell, and treatment depends on a specialized multidisciplinary evaluation capable of integrating a pharmacological, radiotherapeutic, and surgical plan, which differs according to the tumor grade. This study aimed to analyze the situation of malignant brain tumors in the state of Maranhão from 2014 to 2024. **METHODS:** This is a descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The study population consists of patients hospitalized in the SUS due to malignant brain tumors in the state of Maranhão, reported between January 2014 and May 2024. **RESULTS:** From January 2014 to May 2024, the Public Health System of Maranhão reported a total of 1,478 hospitalizations due to malignant brain tumors. Regarding the macroregions of the state, the North had the highest prevalence of cases (1,063), followed by the South (326) and the East (89). Furthermore, in terms of the epidemiological profile, the most affected population are children aged 5 to 9 years, predominantly male and of mixed race. As for the nature of the treatments, 928 were elective, and 550 were urgent. In relation to the number of deaths, a total of 371 was recorded, with the majority occurring in the North region (241), followed by the South region (115) and the East (15). Among the deaths, the male population accounted for the highest number (192). **CONCLUSION:** In this context, the study presents the trend of the epidemiological profile of patients affected by brain cancer, with a predominance of incidence in the pediatric population and among males. Furthermore, in the macroregional analysis, there was a greater concentration of cases and deaths in the North, the most populous region of the state. Characterizing these aspects of brain cancer is essential for formulating more efficient strategies and policies to combat this neoplasm.

**35. ANALYSIS OF RISK FACTORS FOR CHRONIC DISEASES IN THE BRAZILIAN POPULATION**

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**INTRODUCTION:** Chronic non-communicable diseases (NCDs) cause around 41 million deaths a year, corresponding to 74% global mortality, and mainly affect developing countries, which have difficult access to health care and low incomes. The maintenance of risk factors for NCDs can lead to high premature morbidity and mortality, reduced quality of life and high economic costs for countries. The aim of this study was to analyze economic and geographical inequalities in risk behaviors for NCDs among Brazilian adults. **METHODS:** This is a cross-sectional, retrospective study using data from the 2023 Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey (Vigitel). The study included individuals aged  $\geq 18$  years living in the Brazilian state capitals and the Federal District. Descriptive analyses were carried out on the variables smoking, BMI, regular consumption of ultra-processed foods (soft drinks or artificial juices) and irregular consumption of fresh foods. Inequalities in risk behaviors were assessed considering the macro-region in which Brazilians lived, presenting absolute (n) and relative (%) frequencies. The association between risk factors for CNCDs by region of the country was assessed using Pearson's chi-square test, considering a significance level of 5% ( $p < 0.05$ ). Vigitel was approved by the Ministry of Health's National Commission for Ethics in Research with Human Beings (CAAE: 65610017.1.0000.0008). **RESULTS:** A total of 21,690 individuals were assessed. Low schooling accounted for the vast majority of risk factors, corresponding to 23.88% ( $n=5179$ ) with less than 12 years of schooling. The Northeast showed the worst development, accounting for 33.09% ( $n=1714$   $p < 0.001$ ). Smoking accounted for 8.29% ( $n=1798$ ) and consumption of ultra-processed foods accounted for 10.83% ( $n=2350$ ), and was more prevalent in the North of the country in absolute numbers (25.91%  $n=609$   $p < 0.001$ ). **CONCLUSION:** This study showed demographic, economic and geographical inequalities in risk behaviors, which puts certain groups, such as men, young people and those with low levels of schooling at greater risk of developing CNCDs and, consequently, early mortality. Public policies are needed to reduce the inequalities found, allowing for an improvement in the health indicators of the Brazilian population.

**36. ANALYSIS OF FETAL MORTALITY IN MARANHÃO FROM 2020 TO 2022**

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**INTRODUCTION:** Fetal death is defined as the death of a fetus from the 22nd week of gestation onward and serves as an important indicator for assessing the quality of care provided to pregnant women and childbirth. Thus, the objective of this summary is to understand the epidemiology of Maranhão related to fetal deaths between 2020 and 2022, promoting improvements for maternal-fetal health in the state. **METHODS:** This is a descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population included fetal deaths from less than 22 weeks to 42 weeks or more, between 2020 and 2022 in the state of Maranhão. **RESULTS:** From 2020 to 2022, Maranhão reported a total of 4,161 fetal deaths. When analyzing these deaths by residence and type of pregnancy, the highest numbers were recorded in the city of São Luís (460) and in singleton pregnancies (3,915). Regarding macroregions, the North had the highest number (2,323), followed by the East (943) and the South (891). Additionally, the epidemiological profile indicated that the age group with the most cases among mothers was 20 to 24 years, with an educational level of 8 to 11 years of schooling. Furthermore, the data on deaths concerning gestational age showed the highest incidence in the intervals of 37 to 41 weeks (1,173), followed by 32 to 36 weeks (1,092) and 28 to 31 weeks (653). **CONCLUSION:** Fetal deaths are important parameters for analyzing the health of pregnant women and for assessing whether quality prenatal care is being provided. According to the data, the state capital, São Luís, had the highest number of fetal deaths during the studied period. Additionally, singleton pregnancies and the gestational period of 37 to 41 weeks were the most reported. Therefore, it is important to develop measures to address this reality, which significantly affects the quality of public health in the state.

**37. EPIDEMIOLOGICAL ANALYSIS OF DENGUE FROM 2014 TO 2023 IN MARANHÃO**

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**INTRODUCTION:** Dengue is a disease belonging to the group of arboviruses, which are characterized by being caused by viruses transmitted by arthropods. In Brazil, the dengue vector is the female *Aedes aegypti* mosquito. Dengue viruses (DENV) are scientifically classified within the family Flaviviridae and the genus *Flavivirus*. So far, four serotypes are known: DENV-1, DENV-2, DENV-3, and DENV-4, which have distinct genetic materials (genotypes) and lineages. Thus, the present study aims to outline the epidemiological profile of dengue in Maranhão from 2014 to 2023. **METHODS:** This is a cross-sectional, retrospective, quantitative study based on data collected from the DATASUS platform according to the region with the highest prevalence, viral serotype, age group, sex, and case evolution between 2014 and 2023. Inclusion criteria for this study were dengue cases in Maranhão between 2014 and 2023. Exclusion criteria were dengue cases outside Maranhão and outside the selected period. **RESULTS:** According to the data collected, Maranhão accumulated around 56,068 cases during the study period. The regions with the highest prevalence of cases were the Urban Agglomeration of São Luís (n=13,999), Alto Mearim and Grajaú (n=11,214), and Gerais de Balsas (n=4,264). Regarding the viral serotype, it is observed that the most prevalent is DEN-1 (0.6%); however, most cases are not classified by serotype, representing 99.3% of reported cases. In terms of age group, the predominant ages are from 20 to 39 years, followed by the 40 to 59 age group. Regarding sex, females (n=30,858) are more affected than males (n=25,184). As for the evolution of cases, most evolve to cure (62.6%); however, a significant portion of cases are reported as Ignored/Blank (37.2%). **CONCLUSION:** Based on the collected data, it is observed that the IBGE micro-regions most affected by reported cases are the Urban Agglomeration of São Luís, Alto Mearim and Grajaú, and Gerais de Balsas. Furthermore, the most common serotype among cases is DEN-1, and the adult population is the most prevalent group affected by dengue cases. Additionally, cases are concentrated among females, and most evolve to cure. It is worth noting the risk of underreporting of information and the absence of specific fields in DATASUS, which may affect the accuracy of the study.



**38. EPIDEMIOLOGICAL ANALYSIS OF SCHISTOSOMIASIS IN THE NORTHEAST FROM 2014 TO 2023**

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**INTRODUCTION:** Schistosomiasis is an infectious parasitic disease with high prevalence in Brazil, especially in tropical regions. It is primarily characterized by gastrointestinal involvement. Despite the gradual decrease in the number of cases of this disease, it still persists with high prevalence in the Northeast. In this context, the present study aims to identify the clinical-epidemiological profile of schistosomiasis in the Northeast between 2014 and 2023.

**METHODS:** This is an ecological, cross-sectional, and descriptive study, with analysis conducted about the states of the Brazilian Northeast between 2014 and 2023. The data analyzed are from the Department of Informatics of the Unified Health System (DATASUS), researched in the following variables: states, sex, race, age group, education level, clinical form, and outcome. Since secondary and public domain data were used, approval from the ethics committee was waived. **RESULTS:** During the period in question, 9,805 schistosomiasis cases were reported in the region, with a predominance in Bahia (44.5%) and Pernambuco (21.5%), as well as among men (54.7%), adults (63.4% aged between 20 and 59 years), mixed-race individuals (65.2%), and people with low education levels (59.4% of those reported as illiterate or with incomplete primary education). Regarding the clinical form, out of the 6,003 reported cases where it was specified, there were: 4,022 cases of the intestinal form; 535 of the hepato-intestinal form; 742 of the hepato-splenic form; 256 of the acute form; and 448 of other forms. As for the outcome, of the 5,229 cases reported: 4,229 resulted in a cure; 224 did not result in a cure; 554 died from the disease (10.5% of those reported); and 222 died from other causes. Additionally, a linear regression analysis identified a downward trend in the number of reported cases over the period. **CONCLUSION:** Schistosomiasis shows a downward trend in the number of reported cases in the Northeast, despite occasional variations in some states within the region. Regarding the clinical profile, the most prevalent form was the intestinal one, and the outcome for the majority of cases was recovery, despite the high mortality rate (10.5%). As for the epidemiological profile, the typical schistosomiasis patient is an adult, mixed-race man from Bahia or Pernambuco who did not complete primary education. Additionally, it is important to highlight the low reporting of cases to SINAN compared to the Schistosomiasis Control Program (PCE), which recorded 152,574 positive cases of the disease between 2014 and 2021 (the latest available year).

**39. EPIDEMIOLOGICAL ANALYSIS OF ZIKA VIRUS INFECTION IN THE NORTHEAST REGION BETWEEN 2016 AND 2024**

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**INTRODUCTION:** Zika virus is an arbovirus transmitted primarily by the *Aedes aegypti* mosquito, the same vector that carries dengue and chikungunya. Since its discovery in the Zika forest of Uganda in 1947, the virus remained relatively obscure until significant outbreaks occurred in tropical and subtropical regions in recent decades, culminating in a major epidemic in the Americas in 2015-2016. Zika virus has become a global concern due to its associations with severe neurological complications. This study aims to understand the epidemiological profile of Zika virus infection in the northern and northeastern regions of Brazil between 2016 and 2024. **METHODS:** An epidemiological, cross-sectional, quantitative, retrospective and descriptive study was carried out based on data collection from the Notifiable Diseases Information System (Sinan) from 2016 and 2024 in the northeast region of reported cases of Zika virus in Brazil in DATASUS. **RESULTS:** Between 2016 and 2024, 251,235 cases of Zika virus were reported in the North and Northeast regions of Brazil. Bahia had the highest number of reported cases (85,511), followed by Tocantins (23,056) and Rio Grande do Norte (21,667). The population between 20 and 59 years old was the most affected (61.25%). The highest incidence occurred in 2016 (n=116,185), and decreased in subsequent years, but an increase in cases was observed in the last 3 years. Most cases (64.9%) evolved with cure and there were 593 deaths, mainly due to other causes. The majority of cases were women (64.3% females and 35.6% males). Within this group, 8.41% were pregnant. **CONCLUSION:** The data show that the disease is self-limiting and has low morbidity and mortality, but the literature shows that in pregnant women there is an increased risk of fetal malformations and a direct relationship with the virus infection. The data reveal the persistence and significant impact of the Zika virus. Therefore, the increase in the number of cases in the last 3 years in the North and Northeast regions should be a cause for concern for health professionals. These numbers highlight the importance of continuing prevention, diagnosis and treatment efforts to mitigate the impact of the Zika virus in the region.

**40. EPIDEMIOLOGICAL ANALYSIS OF VISCERAL LEISHMANIASIS IN MARANHÃO BETWEEN 2019 AND 2022**

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**INTRODUCTION:** Visceral leishmaniasis is caused by a protozoan of the genus *Leishmania* that parasitizes mammals, including humans. It is transmitted through the blood meal of an insect called the sand fly (*Lutzomyia longipalpis*), popularly known as the straw mosquito, and can cause symptoms such as persistent fever, weight loss, hepatomegaly and splenomegaly, accompanied or not by pancytopenia. Thus, this study aims to outline the epidemiological profile of visceral leishmaniasis in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, in which data provided by the Notifiable Diseases Information System (SINAN) database were used, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS), referring to the period from 2019 to 2022. The variables analyzed were race, sex, level of education, age group, coexistence with the human immunodeficiency virus (HIV), deaths and mortality rate. **RESULTS:** In the years studied, 1369 cases of visceral leishmaniasis were registered in the state of Maranhão. Of these, 78.6% (n = 1076) were brown people. 68.6% (n = 940) were male; 13.8% (n=189) studied up to the 4th grade of elementary school and 3.8% (n=53) were illiterate; 26.4% (n=361) were in the age group of 20-39 years, followed by 23.2% (n=317) between 1-4 years. Approximately 19.6% (n=268) of HIV co-infections, 121 deaths and a mortality rate of 8.8% were recorded. **CONCLUSION:** In Maranhão, leishmaniasis is endemic and requires the intensification of public health policies aimed at entomological, zoonotic and environmental management control. It was found that it is predominant in males of working age and with low education, which makes it assume characteristics of an occupational disease. Furthermore, a lower mortality rate was observed, which can be attributed to early diagnosis, but new instruments for identifying and treating the disease are still needed before it can be properly controlled.

**41. EPIDEMIOLOGICAL ANALYSIS OF MATERNAL MORTALITY IN MARANHÃO BETWEEN 2018 TO 2022**

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**INTRODUCTION:** Maternal mortality is defined as an irreversible factor that occurs during a woman's reproductive phase and represents a crucial indicator of the quality of health services for pregnant women and women in labor. Therefore, analyzing maternal deaths in Maranhão is essential to identify risk factors and develop efficient interventions aimed at reducing such numbers. With the socioeconomic and structural difficulties faced in the region, this study seeks to epidemiologically examine maternal deaths occurring in the State from 2018 to 2022. **METHODS:** This is a descriptive epidemiological study based on data available at the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of maternal deaths in the age group of 10 to 59 years, between 2018 and 2022 in the State of Maranhão. **RESULTS:** In Maranhão, from 2018 to 2022, 499 maternal deaths were recorded, with the highest number of notifications in the municipality of São Luís, throughout the period studied. The year with the highest maternal mortality was 2021 (146), while the lowest was 2022 (76). The age group with the highest number of maternal deaths was 30 to 39 years old, with 197 cases (39.5%), followed by 20 to 29 years old, 184 (36.9%), and in both age ranges, the prevalent cause was maternal death due to direct obstetric causes. In relation to race, the largest number, with a record of 352 deaths, occurred in mixed race, among them, 69.6% due to direct obstetric maternal death. The level of education with the highest number of deaths was between 8 and 11 years old, with 234 cases (46.9%), followed by the range between 4 and 7 years old, 102 (20.4%), being the year with the highest incidence for both were in 2021. Regarding the women's marital status, 234 (46.9%) women were single and 117 (23.4%) were married when the death occurred. **CONCLUSION:** Maternal mortality is an important indicator for analyzing the quality of public health in a region. According to the data analyzed, the profile of women most affected were mixed race, aged between 30 and 39 years old, single and with 8 to 11 years of education. These results indicate that Maranhão still has high rates, especially the state capital, São Luís, with the highest notification of cases. Therefore, it is necessary to develop quality public policies to mitigate this reality of maternal mortality in Maranhão.

**42. EPIDEMIOLOGICAL ANALYSIS OF MATERNAL MORTALITY DUE TO ECLAMPSIA IN NORTHEAST BRAZIL**

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**INTRODUCTION:** Eclampsia is a leading cause of maternal morbidity and mortality. This obstetric emergency is characterized by the onset of generalized tonic-clonic seizures and/or coma during pregnancy or the postpartum period. The diagnosis is typically clinical, and it represents a high-risk condition requiring immediate medical intervention. The aim of this study was to analyze the epidemiological profile and risk factors associated with maternal mortality due to eclampsia in the Northeast region of Brazil between 2012 and 2022.

**METHODS:** This retrospective, descriptive, and quantitative study utilized secondary data from the Mortality Information System, accessed via the Department of Informatics of the Unified Health System (DATASUS). Data on maternal deaths were collected using the ICD-10 code "O15 eclampsia" for the period between 2012 and 2022, in the Northeast region. The analysis correlated variables such as race/ethnicity, education level, marital status, and the period of death within the age group of 10 to 49 years. **RESULTS:** The Northeast region reported 676 deaths (40.1%) due to eclampsia, ranking first among Brazilian regions. Within the Northeast, Maranhão had the highest number of deaths, with 181 cases (26.7%), followed by Bahia with 143 deaths (21.1%). The highest mortality rates occurred in women aged 30 to 39 years, accounting for 40.9% of the cases. A predominance of mixed-race women (67.1%) and unmarried individuals (41.5%) was observed. A slight majority of the women had a good level of education (34.7%), defined as 8 to 11 years of schooling. Maternal deaths predominantly occurred during the postpartum period (49.7%), particularly within the first 42 days.

**CONCLUSION:** Maternal deaths due to eclampsia primarily occurred during the postpartum period in women aged 30 to 39 years, of mixed-race, unmarried, and with a good level of education. This epidemiological profile highlights the urgent need for public health strategies aimed at improving the prevention, diagnosis, and management of hypertensive disorders of pregnancy in the Northeast region. Key actions include ensuring access to quality prenatal care, stratifying obstetric risk, providing safe childbirth assistance, and delivering appropriate postpartum care, alongside establishing an efficient referral and counter-referral system. These are crucial factors for reducing maternal mortality due to eclampsia in the Northeast population, where rates remain high, even considering the potential for underreporting.

**43. EPIDEMIOLOGICAL ANALYSIS OF ACCIDENTS BY VENOMOUS ANIMALS IN MARANHÃO BETWEEN 2019 AND 2023**

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**INTRODUCTION:** Accidents by venomous animals are characterized by clinical cases that sometimes evolve into serious conditions, leading to sequelae and death. They are caused by animals that produce toxins to defend themselves against predators and to capture prey. In Brazil, the most frequent accidents are caused by scorpions, snakes, spiders and bees, and cases of human poisoning are subdivided according to the genus of the poisoning species. In this way, this study sought to trace the epidemiological profile of individuals who have suffered accidents caused by venomous animals in Maranhão. **METHODS:** This is a retrospective epidemiological study, with a quantitative approach, which used data provided by the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years surveyed were between 2019 and 2023 and race, gender, serotherapy, type of accident, type of snake, type of spider and case evolution were analyzed. **RESULTS:** In the period studied, 26,240 cases of accidents by venomous animals were recorded in the state of Maranhão. Of these, 9.9% (n=2,600) occurred in Pindaré and 8.9% (n=2,341) in Caxias. 76.5% (n=20,068) of those affected were brown. 64.3% (n=16,872) were male; 53.8% of cases (n=14,106) were treated with serotherapy. Regarding the type of accident, 43.4% (n=11,383) were snakebites, 68.9% of which were *Bothrops*. 39.8% (n=10,432) were scorpionbites, 4.8% (n=1,259) were beebites and 5.6% (n=1,477) were spiderbites, 27.1% (n=400) of which were *Loxosceles*. Finally, 84.2% (n=22,081) of the cases were cured. **CONCLUSION:** In Maranhão, according to the data presented, accidents caused by venomous animals have high rates, with a predominance of brown people, who are the majority of the local population, and males, who are probably more exposed at work. However, despite the high rates of therapeutic success resulting from the use of serotherapy, the presence of mortality is significant, as it demonstrates the need for public health policies aimed at treating and preventing these cases of poisoning.

**44. EPIDEMIOLOGICAL ANALYSIS OF ACUTE MYOCARDIAL INFARCTION IN THE NORTHEASTERN REGION OF BRAZIL**

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**INTRODUCTION:** Acute myocardial infarction (AMI) is a complex public health problem, both nationally and internationally, and one of the main causes of mortality worldwide. Studying this pathology is essential, given its complexity, since it represents one of the four cardiac pathologies with the highest recurrence rates and one of the greatest financial impacts on the Unified Health System (SUS). In this context, this study aimed to analyze the frequency of mortality records caused by AMI and identify its epidemiological patterns in the Northeast region of Brazil, from April 2019 to April 2024.

**METHODS:** This is a descriptive, cross-sectional, quantitative epidemiological study based on secondary data collected from DATASUS records of AMI deaths in the Northeast region from 2019 to 2024. **RESULTS:** In the Northeast region, between April 2019 and April 2024, 15,751 cases of death from AMI were recorded, resulting in a mortality rate of 10.52. In addition, three states presented worrying data about the mortality rate: Alagoas, with 14.5; Ceará, with 13.17; and Maranhão, with 12.93. The highest prevalence of deaths was among men, with 53.37% of cases compared to 46.63% among women. The 70-79 age group recorded the highest number of deaths (4684), followed by the 80 and over age group (4134). There were no records of deaths from AMI in individuals under the age of 10. The year 2022 had the highest number of records (3259 cases), followed by 2023 (3216 cases). During the period analyzed, there was an upward trend in the number of deaths from AMI throughout the Northeast, with the states of Ceará and Pernambuco showed the greatest increases during this period. **CONCLUSION:** The results point to a male predominance and a concentration of deaths from AMI in the 70-79 age group in the Northeast, highlighting the urgent need to implement health promotion and prevention strategies for this age group. Furthermore, they indicate the need for specific public policies for each state, given the variation in averages between states and the region. These policies should be aimed at reducing disparities in treatment and reducing mortality in clinical outcomes.

**45. EPIDEMIOLOGICAL ANALYSIS OF NON-MELANOMA SKIN CANCER IN NORTHEAST BRAZIL**

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**INTRODUCTION:** Skin cancer is one of the leading causes of death worldwide, and its main risk factor is excessive exposure to solar radiation. Furthermore, non-melanocytic skin cancer is the most common type in Brazil, especially in the Northeast region, with a higher incidence of basal cell carcinoma, followed by squamous cell carcinoma. The objective of this study was to analyze the epidemiological profile of non-melanoma skin cancer in the Northeast region of Brazil. **METHODS:** This is an integrative literature review on the epidemiology of non-melanoma skin cancer in the northeast of Brazil. Eight scientific articles from the last 10 years were selected using the Scielo database (Online Scientific Electronic Library) in English and Portuguese, as well as secondary data from the Ministry of Health – Datasus, within the period from 2017 to 2019, using the descriptors "skin cancer," "northeast," and "prevalence".

**RESULTS:** Non-melanoma skin cancer (NMSC) is the most common and prevalent neoplasm throughout Brazil, accounting for 33% of all malignant tumor diagnoses in the states of Ceará, Bahia, and Pernambuco. The majority of cases are of the basal cell carcinoma type, with an incidence of about 70%. Regarding age group, individuals aged 70 years or older represent the majority of NMSC diagnoses, with a significant increase in this age group from 2017 to 2018, amounting to 859%, and from 2018 to 2019, a 108% increase. As for gender, there were some variations over the years; from 2017 to 2018, neoplasms increased by 79% in men and 88% in women, while in 2019, women represented the highest number of cases, with 74% of them diagnosed. **CONCLUSION:** The statistical data from 2017 to 2019 demonstrate the high incidence of non-melanoma skin cancer in the northeastern region, highlighting the need for preventive measures to raise awareness about proper sun protection. In this way, it is crucial to promote health services and preventive actions among Brazilian states to effectively prevent skin cancer in the Northeast region.

**46. EPIDEMIOLOGICAL ANALYSIS OF HANSEN'S DISEASE CASES IN MARANHÃO FROM 2001 TO 2020**

Ludmylla Ellen Ferreira Freire<sup>1</sup>, Rafaella Thomas<sup>1</sup>, Lucas Araújo dos Santos<sup>1</sup>, Alessandra Pinheiro Chagas<sup>1</sup>, Matheus da Silva Moraes<sup>1</sup>, Cristian Lucas Costa Silva<sup>1</sup>, Taciana Gabrielle Pinheiro de Moura Carvalho<sup>1</sup>.

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**INTRODUCTION:** Hansen's disease is a chronic, dermatological, and infectious disease caused by the bacillus *Mycobacterium leprae*, transmitted through the respiratory tract. The disease presents with dermato-neurological manifestations, primarily affecting the skin and peripheral nerves, leading to sensory changes, deformities, and disabilities. Brazil is one of the most affected countries, and the state of Maranhão stands out as an endemic area. Therefore, the objective of this study is to analyze the epidemiology of Hansen's disease in Maranhão from 2001 to 2020. **METHODS:** This is a retrospective, quantitative epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The population studied consisted of Hansen's disease cases in Maranhão during the period from 2001 to 2020. The variables correlated were gender, education level, race, and age group. As the data are publicly available, submission to the Research Ethics Committee was not required. **RESULTS:** During the years 2001 to 2020, Hansen's disease was diagnosed in 97,491 people in Maranhão. In the first decade (2001-2010), 55,095 people were diagnosed (56.5% of the total), with 57.6% being men, 68.3% having not completed elementary school, and only 6.3% having completed high school. Additionally, brown-skinned individuals were the most prevalent group, accounting for 51.3% of cases, while the most diagnosed age group was between 20 and 29 years (20.5%), in contrast to the first decade of life, which accounted for 3.3% of individuals. In the second decade (2011-2020), there were 42,396 diagnoses (43.5% of the total), with the epidemiological profile as follows: male (58.2%), brown-skinned (66.3%), incomplete elementary education (52.9%), and an age group between 30 and 39 years (17.7%). Furthermore, the proportion of people who had completed high school was 16.3%, and children up to 9 years old were the least affected age group (3.1%). **CONCLUSION:** The epidemiological analysis of Hansen's disease in Maranhão from 2001 to 2020 reveals a high prevalence of the disease in the region, with a significant number of diagnosed cases. Over the two decades, a pattern was observed in the patient profile, with few variations in demographic characteristics such as gender, race, education level, and age group. These data highlight the persistence of Hansen's disease as a public health problem in the state, especially in more vulnerable populations.

**47. EPIDEMIOLOGICAL ANALYSIS OF CONGENITAL SYPHILIS CASES IN MARANHÃO FROM 2019 TO 2023**

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<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** Syphilis is a bacterial infection caused by *Treponema pallidum*, transmitted through sexual and blood contact. The vertical transmission occurs via the placenta of an infected pregnant woman. Furthermore, the fetal infection can happen during any trimester of pregnancy, leading to spontaneous abortion, fetal death, or prematurity. Clinical manifestations may appear within the first three months of life, during, or after two years of age, potentially affecting multiple systems. The primary preventive measure for congenital syphilis is quality prenatal care, with syphilis testing being available at least during the first and third trimesters of pregnancy. Pregnant women diagnosed with syphilis must be treated along with their sexual partners to prevent reinfection. This study aims to identify the epidemiological profile of congenital syphilis cases in the state of Maranhão from 2019 to 2023. **METHODS:** This is an epidemiological study of congenital syphilis (CS) cases in Maranhão from 2019 to 2023, based on data collected from the Notifiable Diseases Information System (SINAN/DATASUS). **RESULTS:** During the analyzed period, a total of 2,069 cases of CS were registered in Maranhão, of which 1,353 notifications reported no prenatal care, accounting for 65.39% of all cases. From the data analysis, 2019 had the highest number of occurrences, representing 27.40% of the total cases (F = 567), followed by a 10.68% decrease in 2020, with 346 cases, making 2020 the year with the fewest cases in the period analyzed. Additionally, a 12.13% reduction was observed in 2023 (F = 255). **CONCLUSION:** Despite the reduction in cases, congenital syphilis continues to show a high incidence rate, which poses a challenge for public health in the state. Therefore, it is crucial to develop health strategies for early diagnosis and treatment of pregnant women, along with proper prenatal follow-up.

**48. EPIDEMIOLOGICAL ANALYSIS OF REPORTED CASES OF ACCIDENTAL TETANUS IN MARANHÃO FROM 2017 TO 2022**

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<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Accidental tetanus is a non-contagious disease caused by a bacterium (*Clostridium tetani*) found in nature, with transmission typically occurring through contamination of a skin or mucosal wound. It can affect anyone, regardless of sex or age. The typical clinical picture is marked by muscle contractions, low-grade fever, rigidity and pain in the limbs, abdominal stiffness, difficulty opening the mouth, and back pain. The aim of the study is to present the epidemiological profile of reported cases of accidental tetanus in the state of Maranhão. **METHODS:** This is a retrospective and quantitative epidemiological study based on data collection from the Department of Informatics of the Unified Health System (DATASUS). The years studied were from 2017 to 2022, with variables including age group, race, and sex. **RESULTS:** During the study period, there were 74 reported cases of accidental tetanus in Maranhão, with the highest incidence in 2018 (17 cases). The year 2020 showed a significant decline (8 cases), while 2022 saw an increase again (16 cases). The most affected age group was 40 to 59 years (32 cases), while there was 1 case each in those under 1 year and in the 10-14 age group. The self-reported race of mixed race showed the most notifications (45 cases), followed by black (22 cases). Males were the most affected (65 cases), accounting for more than half of the total notifications, which was 74 cases. **CONCLUSION:** The decline in cases in 2020 may be related to the COVID-19 pandemic, due to the overload on public health services and social restriction measures, a point supported by the increase in notifications in 2022 (the period following the pandemic). The predominance of mixed-race individuals may result from this being the majority self-reported race in Maranhão. Regarding age and sex, the groups with fewer cases (under 1 year, 10-14 years, and females) may have lower exposure to risk factors for the disease.

**49. EPIDEMIOLOGICAL ANALYSIS OF THYROID DISORDERS IN SOUTHERN MARANHÃO**

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**INTRODUCTION:** The thyroid is a butterfly-shaped gland located in the front of the neck, just below the area known as the Adam's apple. It plays a direct role in the body's metabolism by producing the hormones T3 (triiodothyronine) and T4 (thyroxine), which, in turn, affect all of the body's systems. Malfunction of this gland can lead to several disorders, such as hyperthyroidism, which involves the excessive release of thyroid hormones, and hypothyroidism, which is the insufficient release of thyroid hormones. In thyrotoxicosis, common symptoms include weight loss, photophobia, anxiety, irritability, and palmar sweating. In hypothyroidism, irregular menstruation, weight gain, hypercholesterolemia, fatigue, and bradycardia are observed. Given this context, the study aims to outline the epidemiological profile of these thyroid gland disorders in the southern region of Maranhão. **METHODS:** This is a cross-sectional, descriptive, and quantitative epidemiological study based on data obtained from the Department of Informatics of the Unified Health System (DATASUS), covering the period from May 2014 to May 2024. Data were collected regarding the number of hospitalizations, sex, race/ethnicity, age group, deaths, and mortality rate of thyroid disorders in the southern region of Maranhão. **RESULTS:** During the analyzed decade, 175 hospitalizations were recorded due to thyroid disorders related to iodine deficiency, thyrotoxicosis, and others. The municipalities with the highest number of hospitalizations were Imperatriz (n=95) and Balsas (n=63). Regarding the categorization of the profile of hospitalized patients, there was a predominance in the 40 to 59 age group and in individuals of mixed race/ethnicity (62%). There was a higher incidence in females with 152 cases, while males accounted for 23 cases, resulting in a female-to-male ratio of 6.6:1. Additionally, emergency admissions (n=100) exceeded elective ones (n=75), and there were 2 deaths during the period, both in Imperatriz. One death occurred in a patient under 1 year of age, and the other in a patient aged 60 to 69, indicating a mortality rate of 1.14% in the Southern macroregion. **CONCLUSION:** In the southern region of Maranhão, mixed-race women aged 40 to 59 represent the population segment most affected by thyroid gland disorders. Therefore, it is necessary to implement measures aimed at monitoring this group in order to prevent complications, given that emergency hospitalization rates are significant, highlighting a public health concern.

**50. ANALYSIS OF THE EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS IN CHILDREN IN MARANHÃO BETWEEN 2013 AND 2023**

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**INTRODUCTION:** Tuberculosis (TB) is a highly transmissible disease caused by *Mycobacterium tuberculosis*. Cough, fever, night sweats and weight loss are common symptoms in children. The mortality rate from TB is high among the pediatric population and is most significant in the 0-4 and 10-14 age groups. Immunization through the Bacillus Calmette-Guérin (BCG) vaccine is the main way to prevent the severe form of the disease and reduce the number of deaths. Objective: To describe the epidemiological profile of tuberculosis in children in the state of Maranhão between 2013 and 2023.

**METHODS:** An epidemiological, retrospective and descriptive study with a quantitative approach on tuberculosis in children in Maranhão. The data used for this study came from the Unified Health System Database (DATASUS) and covers the period of 2013 to 2023.

**RESULTS:** The year 2023 had the highest number of TB cases, accounting 81 in total, with children from 0 to 14 age group. On the other hand, 2020 and 2021 had the lowest numbers, accounting only 61. The other years were: 2013 (n=75), 2014 (n=77), 2015 (n= 64), 2016 (n= 63), 2017 (n= 73), 2018 (n= 75), 2019 (n=63) and 2022 (n=78). **CONCLUSION:** TB has a significant impact on children's health, as it can cause serious and lethal problems. It is therefore necessary to encourage immunization in the first days of life and to promote health education on the subject.

**51. ANALYSIS OF THE IMMUNOLOGICAL ASPECTS OF BREAST MILK**

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**INTRODUCTION:** Newborns don't have a mature defense system and are vulnerable to various diseases that can put their well-being at risk, such as gastrointestinal and respiratory infections. Breast milk is therefore the ideal food because, as well as being properly nourishing, it provides the necessary immune support for the baby, as it is made up of various substances that are important for immune function. The aim is therefore to highlight the immunological potential of breast milk in order to reinforce its importance in promoting infant health. **METHODS:** This is an integrative literature review carried out through a bibliographic survey in the Pubmed and Scielo databases. The terms used in the search were "Breast Milk" and "Immunology", accompanied by the boolean operator "AND". Articles published between 2016 and 2023 in english were included, while incomplete, paid-for texts and those which, after reading the title and abstract, were unrelated to the research topic were excluded.

**RESULTS:** Of the 54 articles found, 6 were used to compose this review, according to which breast milk has important anti-inflammatory, antimicrobial and immunomodulatory properties, with colostrum having greater immunological importance than mature milk. Secretory IgA is the most abundant immunoglobulin and is responsible for protecting the gastrointestinal mucosa by inactivating pathogens, preventing them from binding to receptors and acting against inflammation. As for the enzymes present in milk, it is important to highlight lysozyme, which destroys bacteria; and lactoferrin which, among other functions, binds to iron, preventing bacterial viability and stimulating the maturation of lymphocytes. In addition, milk contains oligosaccharides that help develop the intestinal microbiota and thus prevent diarrhea. It also contains other substances that are important for immunity, such as fatty acids with a lytic function, nucleic acids, cytokines, chemokines, natural killer (NK) cells, macrophages, neutrophils, leukocytes and antioxidant factors. **CONCLUSION:** Breast milk has fundamental immunological properties, which is why it is so important to consume it exclusively from the first days of life until six months of age. Therefore, encouraging breastfeeding and creating strategies for it to occur should be a priority for health services, due to its unique ability to promote infant well-being.

## 52. IRON DEFICIENCY ANEMIA IN BAIXADA MARANHENSE DE 2019 TO 2023

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The World Health Organization (WHO) states that iron deficiency is the most common blood disease worldwide, affecting between 30% and 50% of World population with iron deficiency anemia. Iron is an essential component of Hemoglobin, making it essential for maintaining health. Regarding the causes of iron deficiency anemia, there are several factors such as iron malabsorption, which can be caused due to conditions such as atrophic gastritis, low iron intake in the diet, Acute blood loss resulting from trauma and chronic blood loss. In view of this problematic, the objective of this research was to study the prevalence of anemia cases due to Iron deficiency in Baixada Maranhense, from 2019 and 2023. **METHODS:** Study Epidemiological, transversal, descriptive, quantitative, on iron deficiency anemia, using Secondary data reported in the Hospital information system – SIH-SUSTABNET/DATASUS, Of the Ministry of Health, from 2013 to mid-2024. The results were tabulated in EXCEL and presented in graphs and tables, expressed in numbers, absolutes and frequencies. **RESULTS:** The study revealed n=124 cases of hospitalizations due to Iron deficiency anemia in the lowlands of Maranhão, between 2019 and 2023, with a tendency increasing in the years 2019 to 2022, decreasing in the year 2023. Regarding the age group: <1 year: n=2, while the most affected were 40 to 49 years old: n=21. The most affected gender was mixed, with n=89. Regarding sex, male: n=57; female: 67. It was found, also, that the total amount spent on such procedures was n=R\$37,893.52, and that the amount average was n=R\$305.59. As for the mortality rate, n=1.61 was found, with deaths N=2. **CONCLUSION:** It can be highlighted that cases of iron deficiency anemia in the Microregion of Baixada Maranhense, were relatively low, however, they represent warning factors for public health managers, given the great importance of public policies to mitigate this scenario through preventive actions. It's valid. It should also be noted that the number of cases of iron deficiency anemia in the last two years were the highest in the study, mainly affecting the mixed-race population and Female sex. Therefore, interaction between the sectors responsible for Public Health, so that good treatment services are offered, in accordance with Demand in the region, contributing to the drop in the number of cases.

## 53. ANESTHESIA IN VIDEOLAPAROSCOPIC CHOLECYSTECTOMY AND ITS POSITIVE OUTCOME: CASE REPORT

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**INTRODUCTION:** Emphysematous pyelonephritis (PE) is a rare infectious necrotizing condition of the renal parenchyma. It is characterized by the presence of gas in the kidney tissue and is generally associated with diabetes mellitus and obstructive uropathy. The objective of this study was to report a case of PE, with an emphasis on clinical management, based on intensive support and antibiotic therapy, without the need for surgical intervention of nephrectomy. This report was submitted for evaluation by the Research Ethics Committee (CEP), in accordance with the guidelines and regulatory standards for research involving human beings, approved according to Certificate of Presentation for ethical assessment no. 54533521.0.0000.5084. **CASE DESCRIPTION:** A 40-year-old male patient, weighing 71 kg, with systemic arterial hypertension, taking losartan (100 mg/day), was admitted with a diagnosis of symptomatic cholelithiasis. After a detailed preoperative evaluation, it was decided to perform a videolaparoscopic cholecystectomy under general anesthesia. Anesthetic management included induction with fentanyl 250 mcg (3 mcg/kg) and propofol 140 mg (2 mg/kg), followed by neuromuscular blockade with rocuronium 40 mg (0.6 mg/kg) and maintenance with sevoflurane gas. During surgery, the patient was continuously monitored with cardioscopy, temperature, pulse oximetry, capnography and noninvasive blood pressure. The surgical procedure was uneventful and lasted 90 minutes. Postoperative nausea and pain were managed with ketorolac (30 mg IV), dipyrone (2 g IV), and ondansetron (8 mg IV). The patient was transferred to the postoperative care unit and presented adequate pain control, without the need for additional opioids. Early mobilization was encouraged, and the patient did not present nausea or vomiting. He was discharged 48 hours after surgery, with the patient reporting minimal pain and a rapid return to daily activities. **CONCLUSION:** Appropriate anesthetic management played a crucial role in the positive outcome of this case of laparoscopic cholecystectomy. The choice of anesthetic medications contributed to effective pain control, rapid recovery, and absence of complications. This case highlights the importance of individualized anesthetic planning to optimize clinical results in minimally invasive surgeries.



**54. EPIDURAL ANESTHESIA IN MYOCARDIAL REVASCLARIZATION: SYSTEMATIC REVIEW AND META-ANALYSIS**

Italo C. Martins<sup>1</sup>, Luis Phelipe Gama De Moraes<sup>1</sup>, Ludmyla Assunção De Paula<sup>1</sup>, Carlos Vinícius Vale De Andrade Costa<sup>1</sup>, Pedro Igor De Sousa Rios<sup>1</sup>, Caio Marcio Barros De Oliveira<sup>1</sup>.

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**INTRODUCTION:** Technological and pharmacological advances in anesthesia and surgery over the past decades have reduced complications in patients undergoing cardiac surgery. Thoracic epidural anesthesia (TEA), initially used in myocardial revascularization (MR), became unpopular due to the risk of epidural hematoma with heparinization. However, studies show improvements in analgesia and pulmonary function. Thus, this review aims to synthesize the state of the art on the use of TEA in MR, focusing on other clinical outcomes and patient hospitalization time. **METHODS:** Following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), a systematic review and meta-analysis were conducted. The inclusion criteria covered observational studies involving patients undergoing myocardial revascularization (MR), detailing at least one outcome, such as arrhythmias, length of hospital stay, and neurological events. For the statistical analysis, R Studio was used with the "meta" package. The odds ratio (OR) and mean difference (MD) with a 95% confidence interval (CI) were applied, as well as the  $I^2$  test to assess heterogeneity. **RESULTS:** Of the 519 pre-selected studies, 4 met the inclusion criteria, covering 704 revascularized patients, with 350 in the thoracic epidural anesthesia (TEA) group and 354 receiving only general anesthesia (GA). In the arrhythmia analysis, there was a significant trend toward a lower incidence of arrhythmias in the TEA group (OR: 0.46 [95% CI: 0.32; 0.67]);  $I^2 = 0\%$ . In the analysis of hospital stay, 35 patients were included in both groups. The analysis revealed a significantly shorter length of stay for the TEA group (MD: -1.12 [95% CI: -1.85; -0.40]),  $I^2 = 0\%$ . Regarding neurological complications, 330 patients were in the TEA group and 152 in the GA group. There was a trend toward a lower incidence of neurological events in the TEA group (OR: 0.16 [95% CI: 0.01; 1.44]);  $I^2 = 84\%$ . **CONCLUSION:** This meta-analysis revealed that thoracic epidural anesthesia in myocardial revascularization is associated with a reduction in both hospital stay and the incidence of arrhythmias and neurological events. However, the high heterogeneity of the studies prevents definitive conclusions about the impact of TEA in reducing these neurological events. Further studies in different locations are necessary to increase sample size, assess the technique's applicability, and reduce the heterogeneity of some outcomes.

**55. ANESTHESIOLOGY IN ELECTROCONVULSIVE THERAPY IN A PATIENT REFRACTIVE TO MEDICATION: CASE REPORT**

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**INTRODUCTION:** Electroconvulsive therapy (ECT) is an essential therapeutic intervention in the treatment of severe psychiatric disorders, particularly in cases refractory to medication. ECT can induce adverse effects such as fractures, dysrhythmias, nausea, vomiting, headache and post-ictal confusion, highlighting the importance of adequate anesthesiological care. This report describes the anesthetic management of a patient with super-refractory schizoaffective disorder, who underwent ECT using a combination of propofol, xylocaine and succinylcholine. This report was submitted to the Research Ethics Committee (CEP) under number 54533521.0.0000.5084. **CASE DESCRIPTION:** A 35-year-old male patient diagnosed with schizoaffective disorder with severe psychotic symptoms is highly resistant to medication, and treatment with ECT is indicated. The patient underwent a complete pre-anesthetic evaluation, including laboratory tests and electrocardiogram (ECG). Anesthesia was induced with 1 mg/kg of propofol, 1 ml of xylocaine, and 1 mg/kg of succinylcholine. Monitoring included vital signs, pulse oximetry, and electroencephalogram. The patient was maintained on assisted ventilation with a face mask, with close monitoring of vital signs and the level of anesthesia. After induction and confirmation of adequate muscle relaxation, an electric current was applied to induce a seizure, lasting approximately 30 seconds. Ventilation with a high-output oxygen insufflator was used to ensure oxygenation. The procedure was uneventful, and the patient gradually regained spontaneous breathing and consciousness. After complete recovery, ondansetron was administered to prevent nausea and paracetamol for pain and headache. The clinical response to ECT was positive, with a noticeable improvement in the reduction of psychotic symptoms in the subsequent weeks. **CONCLUSION:** This case illustrates the importance of a personalized and carefully planned anesthetic approach for patients with severe psychiatric disorders undergoing ECT. The combination of propofol, xylocaine, and succinylcholine provided a rapid and stable induction, ensuring safety and efficacy during the procedure. Collaboration between anesthesiologists and psychiatrists is essential to optimize therapeutic results and minimize the risks associated with ECT.

**56. EBSTEIN'S ANOMALY IN THE BRAZILIAN PEDIATRIC POPULATION: A 10-YEAR EPIDEMIOLOGICAL OVERVIEW**

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**INTRODUCTION:** Ebstein's Anomaly (EA) is a complex congenital heart defect resulting from abnormal development of the tricuspid valve. EA accounts for approximately 1% of congenital heart diseases (CHD). Clinical presentation varies according to the severity of the condition, and due to its phenotypic heterogeneity, management is individualized. Despite advancements in treatment, the mortality rate remains high. This study aimed to describe the epidemiological profile of live births with Ebstein's anomaly and the associated infant and fetal mortality from this CHD in Brazil. **METHODS:** Data for this study were obtained from the Live Births Information System and the Mortality Information System, accessible through the Monitoring Panels of the Department of Informatics of the Unified Health System. Data collection focused on the Q22.5 indicator (Ebstein's anomaly) between 2013 and 2022, examining live births and infant and fetal mortality and correlating variables such as sex, race/ethnicity, type of delivery, gestational age, Apgar score, and the number of deaths. **RESULTS:** During the analyzed period, 203 live births with EA were reported in Brazil, alongside 255 infant and fetal deaths attributed to the condition. Among live births, the Southeast region reported the highest number of cases (52.7%, n = 107). Females slightly outnumbered males (50.7%, n = 103 vs. 49.2%, n = 100). Most live births were white (60%, n = 122), and cesarean section was the predominant mode of delivery (84.2%, n = 171). The majority were born at term (71.4%, n = 145). Regarding Apgar scores at the first minute, most newborns were classified as having no asphyxia (52.7%, n = 107), while a smaller proportion had mild asphyxia (29%, n = 59). As for deaths due to EA, the majority occurred during the neonatal period (58.4%, n = 149), predominantly in male (51.7%, n = 132) and white (48.2%, n = 123) individuals. **CONCLUSION:** Live births with EA in Brazil were primarily female, white, delivered by cesarean section, born at term, and with no signs of asphyxia. Mortality due to EA in the pediatric population occurred mainly during the neonatal period, consistent with the literature, particularly in male and white patients. The life expectancy of individuals with EA remains significantly lower than that of the general population, despite early and aggressive treatment. Long-term cardiovascular care by congenital cardiology specialists is essential for improving outcomes in patients with EA.

**57. TAKAYASU ARTERITIS: GENETIC POLYMORPHISMS, TREATMENTS AND IMPACTS ON MORBIDITY AND MORTALITY**

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**INTRODUCTION:** Takayasu Arteritis (TA) is a rare vasculitis affecting large blood vessels, such as the aorta and its branches, more commonly seen in young individuals. Clinical manifestations may include chest pain, reduced or absent pulses, and limb claudication. Since its etiology is not fully understood, this article aims to investigate the relationship between genetic polymorphisms in the Human Leukocyte Antigen (HLA) system and the disease's pathophysiology, as well as new pharmacological associations regarding treatment, in order to reduce the negative effects of long-term corticosteroid use on patient morbidity and mortality. **METHODS:** This is a systematic review based on research using the descriptors "Takayasu Arteritis", "Polymorphism Genetic", and "Treatment". Selected articles were sourced from PubMed, Scielo, and Lilacs platforms, published between 2014 and 2024, in English. **RESULTS:** Several independent signals within the HLA region were identified as genetic susceptibility factors for TA, with HLA-B52:01 standing out as a strong genetic factor across various ancestries. Additionally, three other independent HLA alleles were identified as susceptibility factors for TA: HLA-B13:02, HLA-B15:01, and HLA-DQB105:02. Regarding treatment, it was found that the use of infliximab, a TNF-alpha inhibitor, combined with first-line medications such as glucocorticoids, resulted in significant clinical and biological improvements in 87% of cases of refractory TA, with some patients achieving disease remission. Furthermore, infliximab showed a steroid-sparing effect, which positively impacts the patients' prognosis. **CONCLUSION:** The influence of genetic polymorphisms in the HLA system on TA was evident. However, given the complex structure of the HLA region, further studies are needed to identify new susceptibility loci. Regarding infliximab, satisfactory therapeutic outcomes were observed when used in combination with glucocorticoids. Therefore, further studies are necessary to investigate the benefits of TNF-alpha inhibitors as a first-line treatment for this condition.

**58. BIOPSYCHOSOCIAL ASPECTS RELATED TO SCREEN USE IN CHILDHOOD: A LITERATURE REVIEW**

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**INTRODUCTION:** Childhood is characterized by biological and psychosocial changes that enable significant gains in the motor, socio-affective, and cognitive domains of development. However, during this period, early and excessive screen exposure presents risks, primarily related to deficits and delays in language, communication, motor skills, and mental health. Additionally, an increase in obesity and a reduction in family interaction time have been observed in children with unrestricted access to interactive media. Therefore, the present study is justified by the importance of understanding the effects of electronic device use on the pediatric population, in order to develop preventive strategies against such repercussions.

**METHODS:** This is an integrative literature review with a descriptive and qualitative approach, constructed using the PICO strategy, which stands for population, intervention, comparison, and outcomes. Inclusion criteria were studies published in Portuguese and English, available in full, and dated between 2018 and 2022, from the databases PubMed, Scielo, BVS, and Google Scholar. The Boolean operator AND was used to combine the following descriptors: child development AND screen time AND psychosocial impact, previously identified in the Health Sciences Descriptors (DECS). Duplicate or incomplete articles, as well as those not related to the topic, were excluded. A total of 861 studies were found, of which 38 were selected based on the inclusion and exclusion criteria. **RESULTS:** Excessive screen use, defined as screen time exceeding 2 hours per day, promotes a disruption in the establishment of the sleep-wake cycle, increasing the release of hormones that lead to delayed and poor sleep quality. Of the selected articles, 6 linked unsatisfactory sleep, difficulty falling asleep, and nighttime awakenings to screen use. A positive association between television exposure time and obesity (53%) was also observed. Three articles found a relationship between TV viewing and obesity, regardless of viewing time (17.6%). The content displayed on screens was shown to have a significant impact on mental health, not just in relation to the amount of time spent watching. **CONCLUSION:** The child's relationship with the digital world depends on adult mediation, the content accessed, and the time spent on this activity. Therefore, it is essential that parents and educators ensure a safe virtual environment for holistic and appropriate development.

**59. ASSOCIATION OF OTHER AUTOIMMUNE DISEASES IN A POPULATION WITH TYPE 1 DIABETES MELLITUS**

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**INTRODUCTION:** Type 1 Diabetes Mellitus (T1DM) is one of the most common autoimmune endocrine diseases in childhood, resulting from the interaction of genetic, immunological, and environmental factors that lead to the destruction of insulin-producing pancreatic beta cells. The literature commonly associates T1DM with other autoimmune diseases, where the confluence of more than one of these conditions in the same individual is referred to as Autoimmune Polyglandular Syndrome (APS). This study aimed to characterize patients with T1DM associated with other autoimmune diseases in Maranhão. **METHODS:** This is a cross-sectional quantitative study conducted with 157 patients diagnosed with T1DM who were treated at a referral center for endocrinology in São Luís, MA. Data collection occurred through the analysis of medical records in July 2024, aiming to investigate correlations between T1DM and other autoimmune diseases. The studied variables included sex, age, presence of autoimmune disease, age at T1DM diagnosis, and age at autoimmune disease diagnosis. This study was approved by the Research Ethics Committee of the University Hospital of the Federal University of Maranhão (CEP-HUUFMA), under opinion N°. 2,441,473 and CAEE 59795116.9.0000.5086. **RESULTS:** Of the 157 included patients, 80 (51%) were male. The mean age of the studied group was 25.05 years. Among the patients, 19 (12.1% of the total) had another autoimmune disease, which was stratified as follows: 8 patients with Hashimoto's thyroiditis, 6 with Graves' disease, 2 with celiac disease, 2 with autoimmune hepatitis, and 1 with lichen planus. Furthermore, 14 patients (73.7%) in this group were female. T1DM was the first autoimmune disease in 14 patients (73.7%), while it occurred subsequently in only 2. The diagnosis was concurrent in 2 patients, and 1 did not have the diagnosis date specified. **CONCLUSION:** The study revealed a significant prevalence of T1DM with other autoimmune diseases, being most commonly associated with thyroid diseases, characterizing APS. It was also observed that T1DM tended to precede the development of other autoimmune conditions and that the presence of APS was more common among women. Additionally, the average age was low (25.05 years), which relates to the main limitation of the study: the possibility that individuals may develop other autoimmune diseases over their lifetime.

**60. ASSOCIATION BETWEEN DIABETES MELLITUS AND DEPRESSION IN THE BRAZILIAN POPULATION: VIGITEL 2023**

Tereza Cristina Barbosa Ribeiro do Vale<sup>1</sup>, Brenda da Silva Lima<sup>1</sup>, Juliana Lobato Miranda Pereira<sup>1</sup>, Patrícia Carla Guimaraes Catarino<sup>1</sup>, Gabriel Pereira de Sousa<sup>1</sup>, Josymaykon dos Santos Coutinho<sup>2</sup>, Antenor Bezerra Martins Neto<sup>1</sup>.

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**INTRODUCTION:** Diabetes Mellitus (DM) is associated with negative effects on quality of life and is often associated with depression in adults and the elderly. Studies estimate a worldwide prevalence of 28% people with type 2 diabetes mellitus and depression, indicating that around one in four people with diabetes suffer from depression. In addition, depression in the context of DM can interfere with the glycemic control of the individual with diabetes, increase the risk of diabetes complications (retinopathy, nephropathy, neuropathy, coronary heart disease, cerebrovascular disease and peripheral arterial disease) and lead to a higher mortality rate. The aim of this study was to assess the association between DM and depression in adults living in Brazilian state capitals and the Federal District. **METHODS:** This is a cross-sectional, retrospective study using data from the 2023 Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey (Vigitel). The study included individuals aged  $\geq 18$  years living in the Brazilian state capitals and the Federal District. The exposure variable was DM and the outcome was depression, both self-reported by the participants. Descriptive analyses were carried out on the variables gender, age, schooling, DM and depression, showing absolute (n) and relative (%) frequencies. The association between DM and depression was assessed using Pearson's chi-squared test, considering a significance level of 5% ( $p < 0.05$ ). Vigitel was approved by the Ministry of Health's National Commission for Ethics in Research with Human Beings (CAAE: 65610017.1.0000.0008). **RESULTS:** Of the 21,690 individuals studied, the majority were female (62.51%), aged 60 or over (29.94%) and had completed high school (37.0%). The prevalence of DM was 13.03% and depression was 13.7%. When assessing the association between DM and depression, it was possible to observe a higher prevalence of depression in individuals with DM (18.34%;  $p < 0.001$ ), compared to those without DM (12.18%). **CONCLUSION:** A significant association was found between depression and DM, since a higher prevalence of depression was found in individuals with DM. This demonstrates the need for glycemic control in these patients in order to prevent depression as the disease progresses.

**61. EVALUATION OF EXTRACORPOREAL MEMBRANE OXYGENATION IN THE TREATMENT OF PULMONARY THROMBOEMBOLISM**

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<sup>1</sup> Faculty of Medical Sciences of Pará

**INTRODUCTION:** Extracorporeal membrane oxygenation (ECMO), whether venoarterial (VA-ECMO) or venovenous (VV-ECMO), is a life support technique that temporarily assists the cardiovascular and respiratory systems in intensive care, which makes this approach increasingly used in the treatment of pulmonary thromboembolism (PTE). Despite its usefulness in hemodynamic stabilization, it is necessary to deepen and analyze the benefits of ECMO seen in the clinical outcomes of individuals with PTE. Therefore, the objective of this study is to explore and debate the advantages of ECMO in patients with pulmonary thromboembolism in the context of intensive care. **METHODS:** Extracorporeal membrane oxygenation (ECMO), whether venoarterial (VA-ECMO) or venovenous (VV-ECMO), is a life support technique that temporarily assists the cardiovascular and respiratory systems in intensive care, which makes this approach increasingly used in the treatment of pulmonary thromboembolism (PTE). Despite its usefulness in hemodynamic stabilization, it is necessary to deepen and analyze the benefits of ECMO seen in the clinical outcomes of individuals with PTE. Therefore, the objective of this study is to explore and debate the advantages of ECMO in patients with pulmonary thromboembolism in the context of intensive care. **RESULTS:** Of the 541 filtered articles, 62 papers remained after reading the titles and abstracts, of which eight met the defined criteria. The adoption of ECMO in the context of PTE has favorable prognosis, given the hemodynamic stabilization of critically ill patients and improved quality of life in the long term. Furthermore, VA-ECMO as "Bridge Therapy" for percutaneous embolectomy (EPC) and other therapies was notable, as was the good neurological outcome observed by some authors. However, studies warn of possible complications, such as hemorrhages, thus raising the need for new studies to outline the patient profile that would best benefit from ECMO. **CONCLUSION:** ECMO presented good advantages in the initial therapy of patients with PTE, especially with hemodynamic instability, being promising in improving quality of life. However, the associated complications and the low sample of patients analyzed make the production of more robust studies crucial. This way, it will be possible to optimize the benefits and minimize the risks in the treatment of PTE.

**62. EVALUATION OF THE IMPACT OF EDUCATIONAL INTERVENTIONS IN FIRST AID IN SCHOOL SETTING**

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**INTRODUCTION:** First Aid (FA) consists of initial procedures in emergency situations aimed at preserving life and preventing further harm until specialized assistance is available. However, in Brazil, the practice of FA is limited, and a significant portion of the lay population is inexperienced and hesitant to perform such activities, often confining this knowledge to healthcare professionals. Within the school environment, teachers and other staff members become the primary agents in the prevention and management of accidents, making their training crucial for effectively handling such situations. Thus, this study aimed to evaluate the impact of educational interventions in First Aid in school settings. **METHODS:** This research is an integrative literature review. Data were collected from the Scielo database and the virtual libraries PubMed and BVS. Inclusion criteria were studies published between 2019 and 2024 in Portuguese and English. Non-relevant publications and duplicate articles were excluded. The final sample consisted of 13 articles. **RESULTS:** Regarding the origin of the publications, Brazil was predominant, contributing eight articles. Furthermore, the majority of the interventions were conducted with staff members (n=9). Theoretical-practical interventions (n=7) were the most frequently applied, followed by exclusively theoretical methodologies (n=4). However, only one article compared the benefits of simulations versus theoretical approaches, indicating that practical applications were more effective. Three publications highlighted the improvement in self-confidence as a positive outcome of educational interventions. All studies reported low prior knowledge among participants, along with significant gains in First Aid knowledge across various aspects, such as improved risk identification and content retention. **CONCLUSION:** The preference for involving school staff as participants indicates the importance of these individuals in ensuring the safety and well-being of students within this environment. Additionally, the low levels of preliminary knowledge prior to intervention reflect existing gaps in First Aid education. The analyzed articles demonstrate the effectiveness of interventions, particularly practical ones, in enhancing self-confidence and knowledge among individuals. Therefore, the implementation of continuous educational actions in First Aid should be strongly encouraged.

**63. PROGNOSTIC BIOMARKERS OF ALZHEIMER'S DISEASE IN DOWN SYNDROME: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Down Syndrome (DS), characterized by trisomy 21, is associated with Alzheimer's disease (AD) due to the overproduction of AD-causing proteins. This genetic excess can result in early-onset dementia and other comorbidities that limit life expectancy. However, the roles of specific genes, proteins, and the influence of gender on the progression of AD in patients with DS are still not fully understood. This study aims to identify the main prognostic biomarkers that accelerate the progression of AD in adults with DS, with a focus on sex differences. **METHODS:** We conducted a systematic search in the PubMed, Embase, and Cochrane databases for studies analyzing the influence of key genes, proteins, and sex on the development of AD in adults with DS, comparing them to cognitively stable patients or those without DS. Studies without a control group and articles published more than five years ago were excluded. The outcomes evaluated included plasma analyses, positron emission tomography (PET) scans, cerebrospinal fluid (CSF) biomarkers, and cognitive measures. **RESULTS:** We included 22 studies that identified the following biomarkers associated with faster progression of AD: plasma Tau217 (pTau217) and Tau181 (pTau181) proteins, glial fibrillary acidic protein (GFAP), beta-amyloid (A $\beta$ 42/A $\beta$ 40), neurofilament light chain (NfL), NPTX2, DYRK1A, and VAMP-2. The genes involved were Tau, the beta-amyloid precursor protein gene (APP), ApoE, and TREM2, all of which contribute to the high concentration of beta-amyloid in the pathogenesis of AD. The long-term effects observed included neuronal, axonal, and synaptic loss; neuroinflammation; astrogliosis; atrophy of white matter and the basal forebrain; as well as declines in cognitive performance, episodic memory, and verbal fluency. It has been noted that AD is more common in men with DS, possibly due to altered testosterone production and its conversion into estrogen, which is a protective agent for cholinergic and cortical cognitive function. **CONCLUSION:** Therefore, biomarkers present in plasma and cerebrospinal fluid, such as pTau181, GFAP, beta-amyloid, and NfL proteins, may be important tools in assessing the progression of AD in adults with DS, especially in men, who seem to be more affected. These findings highlight the need for more prospective controlled studies focusing on sex differences to assess the incidence and value of these biomarkers in DS patients with AD.

**64. BRONCHITIS AND INFANTILE BRONCHIOLITIS IN MARANHÃO: PROFILE OF ACUTE CASES FROM 2019 TO 2024**

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**INTRODUCTION:** Acute Respiratory Infections (ARI) are the leading causes of morbidity in children aged 0 to 4 years worldwide, with a focus on acute cases of bronchitis and bronchiolitis, as this group has an immature immune system and narrow airways. These are inflammatory and obstructive conditions of the lower airways, with bronchitis being an inflammation of the bronchi, where mucus movement and production are altered, causing persistent coughs, mainly in children under 5 years old. Acute bronchiolitis, more common in the first 2 years of life, establishes an inflammatory and infectious process in the bronchioles, leading to dyspnea, coughing, and wheezing. The etiology of these diseases is generally allergic, bacterial, and viral, with Respiratory Syncytial Virus (RSV) being a major contributor. Given this context, this study aimed to analyze the morbidity rates of acute bronchitis and bronchiolitis in Maranhão, between 2019 and 2024, in children up to 4 years old. **METHODS:** This is a cross-sectional and quantitative study using data from the Information Department of the Unified Health System (DATASUS), referring to Health Information (TABNET), available in the sub-item "hospital morbidity of the SUS". The number of hospitalizations for acute bronchitis and acute bronchiolitis in Maranhão, reported between January 2019 and May 2024, was analyzed, focusing on the following variables: age group, gender, and affected municipalities. **RESULTS:** The data shows a fluctuation in the number of cases over the years, with a peak in 2022 and 2023, which had 1.368 and 2.944 cases, respectively, according to DATASUS. The total number of hospitalizations was 7.558, with approximately 57.0% corresponding to patients under 1 year of age, while 43.0% were patients aged 1 to 4 years. Regarding gender, males accounted for approximately 57.6% of hospitalized patients, while females represented 42.0%. The municipalities most affected by bronchitis and bronchiolitis cases were São Luís, Imperatriz, and Pinheiro, totaling 2.177 reported hospitalizations. **CONCLUSION:** Due to morphophysiological factors, children aged 0 to 4 years are significantly affected by the ARIs discussed. Therefore, it is necessary to adopt measures aimed at reducing the number of pediatric patients hospitalized for bronchitis and/or bronchiolitis in Maranhão, as these rates have increased in recent years, highlighting a public health issue.

**65. BURNOUT IN RESIDENTS AND SPECIALISTS: AN INTEGRATIVE REVIEW OF CLINICAL AND SURGICAL FIELDS**

Kamilly Iêda Silva Veigas<sup>1</sup>, Rebeca Thamires Serra Araújo<sup>1</sup>, Paulo Gabriel Silva Castro Campos<sup>1</sup>, Brunno Braga Sauaia<sup>1</sup>, Sara Fiterman Lima<sup>2</sup>

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**INTRODUCTION:** Excessive workload leads to burnout, which consists of emotional exhaustion, depersonalization, and chronic occupational stress. In this context, medical professionals, due to long working hours and high responsibility, are at significant mental health risk. Therefore, it is important to understand whether there is a distinction in the development of burnout syndrome between clinical and surgical doctors, given their specific demands. This study aims to assess the presence of burnout in physicians, differentiating between clinicians and surgeons. **METHODS:** This is an integrative review based on the PRISMA protocol, using the descriptors 'burnout' and 'doctors,' as well as their Portuguese equivalents, in the PUBMED, SCIELO, and CAPES PERIODICAL databases. The inclusion criteria were primary articles addressing the topic of burnout in physicians, published in the last 5 years, in English or Portuguese, peer-reviewed, and open access. The selection of studies was made by reading the titles and abstracts, excluding those that did not fit the topic, focused solely on other healthcare professionals or students, or did not present individual results for clinicians and surgeons. **RESULTS:** A total of 136 studies were found, 105 were excluded at the title screening stage, and 23 at the abstract screening stage, leaving 8 to compose this review. Burnout presence was analyzed using two Burnout inventories: Maslach and Oldenburg. In total, 615 medical professionals were assessed, including 255 residents and 356 specialists. Burnout was diagnosed in 54% of residents and 40% of specialists. Among residents, 61% of surgeons and 48% of physicians had the syndrome, while it affected 32% of clinical specialists and 40% of surgeons. Risk factors (RF) included: being young, female, working in a public institution, high weekly workload, night shifts, and years of residency. Marriage, children, and early career were RF for residents and protective factors for specialists. **CONCLUSION:** Therefore, the study's results highlight a high incidence of burnout among resident doctors and specialists, particularly in the surgical field, but with a decrease after specialization. This finding underscores the urgent need for ongoing investigations to identify the key factors involved. Identifying these factors can assist in the development of projects aimed at improving the quality of life for resident doctors and specialists and contribute to reducing the syndrome among these professionals.

**66. DIGESTIVE CANCER: DIAGNOSIS-TO-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Digestive cancers affect the esophagus, stomach, liver, gallbladder, pancreas, intestines, and anal canal. The prevalence varies according to cancer type and geographic region, with colorectal cancer being the 3rd most common in Brazil, and stomach cancer the 5th. Mortality rates are high, especially when diagnosed in advanced stages, emphasizing the importance of early detection. This study aims to analyze the evolution of the waiting time for the initiation of treatment after a malignant neoplasm diagnosis.

**METHODS:** This is an observational cross-sectional analytical study using data from the DATASUS Oncology Panel for all individuals registered between 2019 and 2023. The time interval in days between diagnosis and the first treatment registered was considered for the International Statistical Classification of Diseases and Related Health Problems (ICD) groupings, covering ICD codes C15 to C26. We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures, since the data showed abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** Regarding the year 2019, the median waiting time for treatment was 39 days (IQR: 0 - 97), with 699 cases. In 2020, there was an increase in waiting time, with a median of 43 days (IQR: 8 - 95) in 698 cases. In 2021, the median was 39 days (IQR: 1 - 84) in 750 cases. In 2022, a reduction was observed, with a median of 34 days (IQR: 13 - 73), with 800 cases. In 2023, the waiting time further decreased, with a median of 31 days (IQR: 12.5 - 67), in 836 cases. **CONCLUSION:** Despite the annual increase in the number of digestive organ neoplasms, there was a year-to-year change in the median waiting time, with an increase from 2019 to 2020, but a subsequent reduction from 2021 to 2023. During this period, the waiting time remained within the 60-day threshold mandated by law, even during the COVID-19 pandemic. The data should be interpreted with caution, as an increase in waiting time was expected due to the COVID-19 pandemic.

**67. INTRATHORACIC AND PNEUMOTIC CANCER: DIAGNOSTIC-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Cancer is an important public health problem. Malignant neoplasms of the respiratory system and mediastinum include malignant tumors of the nasal cavity, ear larynx, heart, thymus, lung, trachea and bronchi. They rank among the highest incidence and mortality data in the country. Therefore, they impact the quality of life of individuals and generate high costs for the public health system. This study aims to analyze the evolution of the waiting time for the initiation of treatment following the diagnosis of these malignant neoplasms. **METHODS:** This is a cross-sectional observational analytic study, utilizing data from the Oncological Panel of DATASUS for all individuals registered between 2019 and 2023, considering the time interval in days between diagnosis and the first recorded treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) codes C30 to C39. We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures due to the abnormal distribution of the data as indicated by the Shapiro-Wilk test. **RESULTS:** In 2019, with 263 cases, the median waiting time was 27 days (IQR: 0 - 81), a statistic that worsened in 2020 to 37 days (IQR: 0 - 90) among 223 cases. However, there was an improvement in 2021, with a median of 30 days (IQR: 0 - 78) across 255 cases. In 2022 and 2023, identical medians of 31 days were observed; however, the interquartile ranges differed, with intervals of 1 to 72 days for 273 cases and 0 to 61 days for 283 cases in the two years, respectively. **CONCLUSION:** Despite the increase in the median waiting time from 2019 to 2020, suggesting that the COVID-19 pandemic may have impacted the management of patient treatment, the analyzed period showed a reduction after 2020, consistently remaining below 60 days, in accordance with the 60-day law. The data should be interpreted with caution, as an increase in the time between diagnosis and treatment of the studied diseases would be anticipated due to the occurrence of the COVID-19 pandemic.

**68. ORAL AND PHARYNGEAL CANCER: DIAGNOSIS-TO-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Cancers of the lip, oral cavity, and pharynx rank as the sixth most common cancers worldwide, being more prevalent in men over 40 years of age. In Brazil, it is expected that the number of new cases of oral cancer will increase by between 80.1% and 97.8% by 2040. Currently, oral cancer has a 5-year survival rate of 50% to 60%, and many cases are diagnosed at an advanced stage. Thus, it is important not only to consider the time of disease diagnosis but also the time taken to initiate treatment after diagnosis. The present study aims to analyze the evolution of the waiting time for the commencement of treatment following the diagnosis of malignant neoplasia. **METHODS:** The study is a cross-sectional analytical observational study, utilizing data from the Oncology Panel of DATASUS for all individuals registered between 2019 and 2023. It considers the time interval in days between diagnosis and the first recorded treatment for the grouping of the International Statistical Classification of Diseases and Related Health Problems (ICD) codes C00 to C14. We used RStudio version 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures since the data have an abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** In 2019, the median waiting time in days between diagnosis and the start of treatment was 59 days (IQR: 0 - 151) across 225 cases. In 2020, the median increased to 65 days (IQR: 0 - 171) across 235 cases. Between 2020 and 2021, the median decreased to 50 days (IQR: 0 - 139) across 223 cases. In 2022, the median further decreased to 48 days (IQR: 0 - 102) across 253 cases. In 2023, the median showed the largest percentage variation, with a reduction of approximately 31%, reaching 33 days (IQR: 0 - 75) across 226 cases. **CONCLUSION:** Therefore, these results reveal an increase in the median waiting time from 2019 to 2020, exceeding the 60-day limit between diagnosis and treatment as proposed by the 60-Day Law. In the following years, however, the waiting time remained within the legal limit. Considering the evaluated period, it is suggested that the COVID-19 pandemic may have been one of the factors contributing to the delay in the initiation of treatment during that time.

**69. BREAST CANCER: TIME BETWEEN DIAGNOSIS AND TREATMENT IN MARANHÃO FROM 2019 TO 2023**

Bianca de Fátima Assunção Sodré<sup>1</sup>, Ana Beatriz Figueiredo Portilho dos Santos<sup>1</sup>, Érik Victor da Silva Alves<sup>1</sup>, Jilmario Gomes de Santana Junior<sup>1</sup>, Mateus Balbino Barbosa de Carvalho<sup>1</sup>, Ana Gabriela Caldas de Oliveira<sup>1</sup>.

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**INTRODUCTION:** Breast cancer is the leading cause of cancer-related deaths among women in Brazil. Between 2023 and 2025, the estimated number of new cases is 73,610, with an incidence of approximately 42 cases per 100,000 women. The importance of early diagnosis is linked to better survival rates. This study aims to analyze the evolution of the waiting time for treatment initiation after the diagnosis of this malignant neoplasm. **METHODS:** The study is a cross-sectional observational analytical type, using data from the Oncology Panel of DATASUS for all individuals recorded between 2019 and 2023, considering the time interval in days between diagnosis and the first recorded treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) ICD 10 C50. We utilized RStudio 2024.04.1 for data analysis, describing the median and interquartile range (IQR) as representative measures due to the abnormal distribution of the data based on the Shapiro-Wilk test. **RESULTS:** In 2019, the median waiting time between diagnosis and treatment was 78 days (IQR: 36 - 152) in 627 cases. In 2020, the median waiting time decreased by 17.9%, resulting in 64 days (IQR: 33 - 124) in 667 cases. Between 2020 and 2021, the median further reduced by 10.9%, reaching 57 days (IQR: 32 - 108) in 722 cases. However, from 2021 to 2022, there was an increase in waiting time, with a median of 71.5 days (IQR: 35 - 123.5) in 852 cases. In 2023, the last year analyzed, the median decreased again, reaching 30 days (IQR: 30 - 95) in 800 cases, resulting in a total reduction of 61.5% over the analysis period. **CONCLUSION:** The analysis of the waiting time for breast cancer treatment between 2019 and 2023 showed a median reduction of 61.5%. Although the 60-day law establishes a limit of 60 days for the initiation of treatment after diagnosis, the years 2019, 2020, and 2022 exceeded this limit. The COVID-19 pandemic may have impacted this with fluctuations caused by emergency changes and overload on the healthcare system. It is suggested that the increase in pandemic patients treated via the Unified Health System (SUS) and the economic impacts of the pandemic may also have influenced these results.



**70. EYE AND NERVOUS SYSTEM CANCER: DIAGNOSTIC-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** The DATASUS Oncology Panel groups together four codes from the International Classification of Diseases (ICDs) in the same segment, referring to malignant neoplasms of the eye and adnexa (C69), meninges (C70), brain (C71), spinal cord, cranial nerves, and other parts of the central nervous system (CNS) (C72). CNS tumors are caused by the proliferation of malignant neoplastic cells, accounting for 1.4 to 1.8% of all malignant tumors worldwide. About 88% of CNS tumors are located in the brain. Furthermore, eye and adnexal neoplasms also deserve attention, with 1,859 deaths recorded in Brazil from 2010 to 2019. Therefore, the study aims to analyze the waiting time for the start of treatment after the diagnosis of these malignant neoplasms in the DATASUS system. **METHODS:** This is a cross-sectional analytical observational study using data from the DATASUS Oncology Panel from 2019 to 2023, considering the time interval, in days, between diagnosis and the first recorded treatment for the diseases described above. We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures, as the data show abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** The median waiting time decreased over the years. In 2019, 79 cases were recorded with a median of 84 days (IQR: 31 - 166); followed by 75 cases in 2020 with 77 days (IQR: 30 - 115); 81 cases in 2021 with 53 days (IQR: 27 - 105); 76 patients in 2022 with 52 days (IQR: 22.5 - 102); and finally, 61 individuals in 2023 with 43 days (IQR: 22 - 76). **CONCLUSION:** The study revealed a reduction in the waiting time for the initiation of treatment for malignant neoplasms of the CNS, eyes, and adnexa in Brazil between 2019 and 2023. Despite the apparent compliance with the 60-day Law observed in the study, the data should be interpreted with caution, as other variables were not included in the analysis.

**71. MALE GENITAL CANCER: TIME BETWEEN DIAGNOSIS AND TREATMENT IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Male genital cancers, which include penile, testicular, and prostate cancer, represent a significant portion of neoplasms affecting men. Early diagnosis and the start of treatment remain challenging due to access to healthcare services, awareness of the disease, and the healthcare system's infrastructure. This study aims to analyze the evolution of the waiting time for treatment initiation after the diagnosis of malignant neoplasms using data from the DATASUS system. **METHODS:** This is a cross-sectional analytical observational study, using data obtained through the Oncology Panel of DATASUS for all individuals registered between 2019 and 2023, considering the time interval in days between diagnosis and first treatment for the ICD (International Classification of Diseases and Related Health Problems) codes C60 to C63. We used RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures, as the data have abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** In 2019, the median waiting time in days between diagnosis and the first registered treatment was 85.5 days (IQR: 33 - 244.5). From 2020 to 2023, we observed successive decreases in the median waiting time every year, except for 2021. In 2020, it was 84 days (IQR: 29 - 233). In 2021, it was 84.5 days (IQR: 31 - 175). In 2022, the median decreased to 65 days (IQR: 30 - 144), and 57 days (IQR: 23 - 116) in 2023. The number of cases fluctuated, showing no trend toward stability. **CONCLUSION:** Considering the 60-day law, there is a possible trend towards meeting this timeframe for starting treatment after diagnosis. The first four years analyzed did not comply with the proposed 60-day law for treatment initiation after diagnosis. The concurrence of the COVID-19 pandemic in 2020 may have interfered with this result, as well as other variables not analyzed in the study.

**72. EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF ONCOLOGY PATIENTS WITH NEUROPATHIC PAIN**

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**INTRODUCTION:** Cancer-related pain has multiple causes and mechanisms, the tumor itself, anticancer treatment, emotional aspects and metastases, that can induce neuropathic pain (NP), which is highly prevalent in oncology patients. From this perspective, identifying the NP component is of great clinical importance for proper analgesic management. Therefore, the present study aims to identify the epidemiological and clinical characteristics of oncology patients with neuropathic pain in order to identify possible associations that may help clarify the condition. **METHODS:** This is a cross-sectional population-based study conducted at two oncology hospitals within the public health network of São Luís, MA, from 2019 to 2021. The project was submitted to "Plataforma Brasil" and approved under number 3.450.690. Patients completed an initial questionnaire to identify the presence of chronic pain, and if positive, two additional questionnaires were administered, for the diagnosis of neuropathic pain (DN4) and for sociodemographic, pain, and cancer analysis. A descriptive analysis of the data was performed using the SPSS statistical software version 18, considering a p-value of less than 0.05 for statistical significance. **RESULTS:** Among the 1,020 patients interviewed, 35.3% (360) presented chronic pain. Of these, 62.5% (225) had a probable diagnosis of neuropathic pain (NP). It was observed that 70% of the patients with NP were women, 55% were aged between 40 and 59 years, 76% were of African descent, 71% came from the countryside of the state, 92% were unemployed, 70% earned up to one minimum wage, 44% were married, and 62% had up to 9 years of education. Women and the age group of 40-59 years showed a strong association with NP ( $p < 0.05$ ). The most common cancers were breast cancer (23.6%), cervical cancer (18.7%), and multiple myeloma (10.7%). Chemotherapy was administered to 81.8%, radiotherapy to 44%, and surgery to 56.4%. Metastasis occurred in 44% of the cases. Radiotherapy ( $p = 0.023$ ), breast and cervical cancers ( $p < 0.0001$ ), and metastasis ( $p = 0.014$ ) influenced the occurrence of NP. **CONCLUSION:** A higher prevalence of neuropathic pain was found in female oncology patients, particularly among those aged 40-59 years, of African descent, from the countryside, and who are unemployed. Furthermore, an association was identified between neuropathic pain and factors such as cancer type, receipt of radiotherapy, and presence of metastasis, emphasizing the importance of ongoing investigations to identify the main contributing factors.

**73. HIV INFECTION PORTRAYAL IN PREGNANT WOMEN AGED 10-49 YEARS OLD IN MARANHÃO BETWEEN 2019-2023**

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**INTRODUCTION:** The human immunodeficiency virus (HIV) compromises the immune system by decreasing the lymphocyte count. Evidence points to an increase in women infections in recent years, and the possibility of vertical transmission is an aggravating factor of the condition. In Brazil, 3.1 pregnant women/1000 born alive had HIV in 2022. In this regard, this study aims to describe the epidemiological profile of HIV infection in pregnant women aged 10 to 49 in Maranhão between 2019 and 2023. **METHODS:** This is an epidemiological, retrospective and quantitative study, developed by using Notifiable Diseases Information System (SINAN) data between 2019 and 2023 in Maranhão state. For the research, notifications of pregnant women infected with HIV aged between 10 to 49 were included. The data collection also included parameters such as race, education, notification location, prenatal care, HIV laboratory evidence, treatment and other pregnancy and childbirth related data. **RESULTS:** In sum, 1,1142 HIV infections were reported in pregnant women aged 10 to 49 in the state of Maranhão, between 2019 and 2023, there was a general decrease in the number of reported cases each year, except for 2021, which saw 283 cases, representing a 19.4% increase compared to the previous year. The infection records occurred mainly in pregnant women aged 20 to 29, with 614 (53,8%) notifications, of brown race, being 833 (72,9%) cases, and with complete high school education level, 356 (31,2%) cases. The municipalities that received the most notifications were São Luís, Imperatriz and Pinheiro, with 550, 126 and 52 cases, respectively. 92.6% of the women received prenatal care, and 49.2% of them had HIV laboratory confirmation indicating the importance of prenatal care in identifying the infection. The antiretroviral therapy was administered to 56.2% of the patients. The pregnancies culminated in 429 (37.6%) born alive, with elective cesarean sections as the primary delivery method, totaling 244 surgeries. Furthermore, antiretrovirals were administered to 397 newborns within the first 24 hours of life. **CONCLUSION:** The data disclosed that brown pregnant women with complete secondary education, especially those aged 20 to 29 years, are most vulnerable to HIV infection. High prenatal care contributed to the identification and monitoring of infection during pregnancy, which is crucial for preventing vertical virus transmission.

**74. CHARACTERIZATION OF HOSPITALIZATIONS DUE TO OSTEOMYELITIS IN THE NORTHEAST FROM 2019 TO 2023**Rômulo Guilherme Costa de Amorim<sup>1</sup>, Lucas Kevyn Cunha de Souza<sup>1</sup>, Priscyla Maria Vieira Mendes<sup>1</sup>.<sup>1</sup> Pitágoras Faculty – Bacabal

**INTRODUCTION:** Osteomyelitis is a bone infection caused by bacteria, fungi, or viruses. These infectious agents are disseminated through the bloodstream and/or open wounds, proliferating and triggering an inflammatory response. This pathology can affect bone structures, leading to necrosis and potentially impacting all bones in the body. This study aims to characterize hospitalizations due to osteomyelitis in the Northeast region of Brazil from 2019 to 2023.

**METHODS:** This is a cross-sectional, descriptive, quantitative study based on data extracted from the Hospital Information System of the Unified Health System (SIH/SUS), provided by the Department of Informatics of the Unified Health System (DATASUS). Hospitalizations for osteomyelitis in the Northeast were evaluated between 2019 and 2023. The analysis parameters included federative units by region, age group, race/color, sex, and type of care.

**RESULTS:** Between 2019 and 2023, there were 21,211 recorded cases of hospitalizations due to osteomyelitis in the Northeast, with the federative units reporting the highest numbers being Pernambuco (PE) with 4,719 cases ( $\approx 22.24\%$ ), Bahia (BA) with 4,323 cases ( $\approx 20.38\%$ ), and Ceará (CE) with 3,735 cases ( $\approx 17.6\%$ ). The percentage of hospitalizations for this morbidity in the region showed a rising trend in relation to the cases recorded in the country from 2019 to 2023, respectively: 26.47%; 26.77%; 30.77%; 31.01%; and 32.1%. The majority of cases were in males, accounting for 15,121 cases ( $\approx 71.28\%$ ) compared to females with 6,090 cases ( $\approx 28.71\%$ ). Furthermore, there was a prevalence among individuals aged 40 to 49 years, totaling 3,696 cases ( $\approx 17.42\%$ ), followed by those aged 30 to 39 years with 3,602 cases ( $\approx 16.98\%$ ) and those aged 50 to 59 years with 3,490 cases ( $\approx 16.45\%$ ). Notably, 15,988 cases ( $\approx 75.37\%$ ) of hospitalizations were classified as urgent, while 5,233 cases ( $\approx 24.67\%$ ) were elective. Regarding race/color, the majority of hospitalizations for osteomyelitis were among mixed-race individuals, totaling 14,482 cases ( $\approx 68.27\%$ ).

**CONCLUSION:** In conclusion, it is emphasized that males were the most affected group, with the majority of hospitalizations being urgent. The most impacted demographic was predominantly mixed-race individuals aged 40 to 49 years and Pernambuco was the state in the Northeast with the highest prevalence of this morbidity. Therefore, there is a need for socio-educational strategies in health to raise awareness among the population about this disease, its symptoms, causes, and appropriate treatment.

**75. EPIDEMIOLOGICAL CHARACTERIZATION OF DENGUE CASES IN BRAZIL IN THE 2024 OUTBREAK**Yasmim Nunes Santos<sup>1</sup>, Thiago Henrique Ferreira Matos<sup>1</sup>, Selma Maluf Teixeira<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Dengue is an acute febrile illness transmitted by the *Aedes aegypti* mosquito. It is endemic in tropical regions, with Brazil ranking 6th globally. The objective of this study is to conduct an epidemiological analysis of the 2024 outbreak, aiming to understand its profile, causes, and socioeconomic impact.

**METHODS:** This is an ecological study. Public policies were evaluated on the Ministry of Health's website, and data were obtained from the TABNET system on the Department of Informatics of the Unified Health System (DATASUS) website during 2023-2024.

**RESULTS:** In the Midwest, the most affected region, cases increased by 286% compared to 2023, while in the Northeast, North, South, and Southeast, the increases were 195%, 117%, and 115-74%, respectively, in just the first four months of 2024. The incidence in the Midwest was 3.87 per 100 inhabitants, representing an increase of 238.47% compared to 2023, and the mortality rate from dengue rose by 353.85%. Clinical-epidemiological diagnosis was the most prevalent, followed by laboratory diagnosis. In the South, the incidence decreased by 17.12% in the first four months of 2024, but mortality increased by 50%, indicating the high number of deaths still under investigation. The confirmation criterion was predominantly clinical-epidemiological, while laboratory confirmation accounted for 24% (n = 163,621). Increased health support implies greater effectiveness in reporting cases and less socioeconomic impact. In the Southeast, mortality decreased by 75%, while incidence rose by 173.63%. Regions with the highest Human Development Index (HDI), Gross Domestic Product (GDP), and urban agglomerations are, consequently, the environments most susceptible to the development of mosquito breeding sites. In the North and Northeast, increases in incidence were 16.67% and 6.67%, respectively. Underreporting and the absence of epidemiological data are concerning, with 72.3% (n = 148,298) of outcome data ignored and 54.3% (n = 111,450) of diagnostic confirmation criteria missing, suggesting that the current 'favorable scenario' is likely a misrepresentation of reality. The results indicate that the inadequate utilization of available resources by the SUS, without accounting for the socioeconomic and geographic conditions of the regions, along with irregularities in basic sanitation and urbanization services, exacerbates the situation.

**CONCLUSION:** The growing disparity in incidence between regions underscores the need for an operational review of control measures and the integration of prevention strategies with basic sanitation initiatives.

**76. CASES OF ACQUIRED SYPHILIS IN THE STATE OF MARANHÃO BETWEEN THE PERIODS OF 2014 AND 2023**

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**INTRODUCTION:** Sexually transmitted infections (STIs) continue to be major challenges for public health. Syphilis is one of the most common STIs worldwide and can be transmitted both through direct contact with lesions during sexual intercourse (acquired syphilis) and from mother to fetus (congenital syphilis). The disease is caused by the bacterium *Treponema pallidum* and presents several clinical manifestations and is classified as primary, secondary, latent and tertiary, and depending on the time of infection, it can be considered recent (up to the first year) or late (after the first year). Although it is an easily treatable infectious disease, syphilis can worsen if left untreated. Given this problem, the objective of this research was to study the incidence of cases of acquired syphilis in the state of Maranhão between the years 2014 and 2023. **METHODS:** Epidemiological, cross-sectional, descriptive, quantitative study on acquired syphilis, using secondary data reported in the notifiable diseases information system - SINANT- TABNET/DATASUS, of the Ministry of Health, from 2014 to mid-2023. The results were tabulated in EXCEL and presented in graphs and tables, expressed in absolute numbers and frequencies. **RESULTS:** The study revealed n=14,120 cases of syphilis in Maranhão from 2014 to 2023, with higher prevalence and lower prevalence in 2022 and 2014 respectively. Regarding the age group: 10 to 14 years: n=77, while the most affected were 20 to 39 years: n=7,415. The most affected race was brown, with n=9,864. Regarding sex, male: n=7,700; female: n=6,419. With regard to education, the most affected group is those with completed secondary education n=3,841 cases. **CONCLUSION:** From the analysis of the results, it can be highlighted that the cases of acquired syphilis, in the State of Maranhão, were high and serve as indicators for taking measures by public health managers, given the important role of carrying out preventive actions to change this scenario. It is also worth highlighting that the highest prevalence of syphilis in the State is linked to young men with high school education. Therefore, when verifying these considerations, the importance of joint operations between the health and public education sectors must be highlighted, with the aim of offering prevention and treatment alternatives, aiming to reduce the number of cases.

**77. PROBABLE CASES OF DENGUE IN CHILDREN AND ADOLESCENTS IN NORTHEAST BRAZIL FROM 2014 TO 2024**

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**INTRODUCTION:** Dengue is transmitted by the *Aedes aegypti* mosquito. Its symptoms start abruptly with high fever, headache, myalgias and others, strongly affecting children and the elderly. According to the Ministry of Health, there has been a more than 100% increase in the number of cases in Brazil among children. The symptoms of the virus are diverse and can be mistaken for a common cold or flu, delaying proper treatment and succumbing to additional symptoms of a more serious condition: vomiting, lack of appetite, diarrhea, bleeding and others. Faced with this problem, the aim of this study was to investigate cases of dengue in children and adolescents in the north-east of Brazil from 2014 to 2024. **METHODS:** An epidemiological, cross-sectional, descriptive, quantitative study on Dengue, using secondary data notified in the Ministry of Health's Notifiable Diseases Information System - SINAN - TABNET/DATASUS, from 2013 to mid-2024. The results were tabulated in EXCEL and presented in graphs and tables, expressed in absolute numbers and frequencies. **RESULTS:** n=649768 probable cases of dengue were reported in children and adolescents in the Northeast from 2013 to 2024, with an oscillating trend and peaks in 2015, 2019, 2022 and 2024. The most affected race was brown with n=362779 cases. As for age group: <1 year: n=42341, while the most affected was 15 to 19 years: n=202471. As for gender, male: n=325025; female: 323818. Final classification: Dengue: n=394784; Inconclusive: n=224492; Classic dengue: 9740; Dengue with alarm signs: n=9796; Severe dengue: n=954. Confirmation criteria: Laboratory: n=108756; Clinical-epidemiological: n=291938; Under investigation: n=25798. Evolution: Cure: n=368267; Unknown/white: n=281003; deaths from the notified disease: 296; deaths under investigation: n=148. **CONCLUSION:** Dengue cases in children were high and serve as a warning to public health managers, since public policies are extremely important to change this situation, as they must implement preventive actions. It is important to note that the number of dengue cases in the current year is alarming. Finally, the dengue virus in children is not easy to identify in the first few days, but as the case worsens, it can be fatal. Therefore, it is essential that those responsible and public health are connected so that there is good treatment and a drop in the number of current cases.

**78. EARLY CATARACTS: A LITERATURE REVIEW**

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**INTRODUCTION:** Cataract is the loss of transparency of the lens, resulting in its opacity. It is the biggest cause of treatable blindness in developing countries. According to the World Health Organization, there are 45 million blind people in the world, of which 40% are due to cataracts. This process occurs mainly as a result of aging, but young individuals and children can develop cataracts early. Cataracts commonly appear after the age of 50, but medications, eye trauma and chronic diseases can accelerate the process. This work aimed to clarify the medical community about the types and predisposing factors that lead to early cataracts. **METHODS:** Research from 2019 to 2024 on the topic was reviewed, using an integrative literature review. The searches in the databases, SCIELO, Pubmed and Google Scholar used the descriptors "early cataract", "crystalline cataract", "risk factors" and "predisposing causes", including articles in portuguese and excluding those prior to 2019, or duplicates. 10 articles were used. **RESULTS:** It was found as an inherent characteristic of all studies that the transparency of the crystalline lens is fundamental for vision, as its opacity alters the refractive functionality adaptive to the distances of the observed objects, reducing visual acuity. It has been identified that habits such as smoking, greater exposure to sunlight and self-medication increase the risk of developing cataracts early. Another relevant factor observed was the presence of excess metabolites, which can accelerate its appearance, which commonly occurs in diabetic patients. Genetic factors and maternal viral infections, such as rubella and toxoplasmosis, have been identified as the most common causes of congenital cataracts. Eye injuries from car accidents or bruises can cause traumatic cataracts. Another important cause observed is related to the continuous use of some medications such as corticosteroids, beta-blockers, isotretinoin and antidepressants. **CONCLUSION:** Knowledge about lens opacification factors must be considered in clinical practice, in order to prevent its progression and guide surgical treatment. In conclusion, early cataract is a condition with multiple risk factors, including genetic, environmental, behavioral, pre-existing pathological factors such as diabetes and medication use. Thus, the doctor is able to improve the patient's quality of life, minimizing and/or avoiding the individual's functional loss.

**79. CARDIAC SURGERY: ADVANCES, ADVANTAGES AND LIMITS OF THE MINIMALLY INVASIVE TECHNIQUES**

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**INTRODUCTION:** Minimally invasive surgery (MIS) was introduced to Brazil in the 1990s and has since differentiated itself from traditional surgery, evolving and gaining popularity. In cardiac surgery, this technique uses small incisions, without direct access to the heart, unlike the traditional approach, which involves larger incisions and can cause visible anatomical changes and longer hospitalization and recovery times. Despite the differences, both methods are valid and have a scientific basis and technological evolution. The objective is to present the advantages and disadvantages of the techniques, helping in the choice of the ideal approach according to the patient's situation and clinical conditions. **METHODS:** Integrative studies conducted between 2018 and 2023 were carried out in the PubMed and SciELO databases, using terms such as minimally invasive and traditional cardiac surgeries. Articles with comparative data were selected that analyzed the advantages and disadvantages of each technique, considering recovery time, complications, and aesthetic outcomes. **RESULTS:** Traditional cardiac surgery, known as median sternotomy, involves a large incision in the chest and cutting of the sternum, allowing direct access to the heart. However, this method can result in greater surgical trauma, risks of infection, and visible scarring, as well as a longer hospitalization and recovery time. In contrast, minimally invasive cardiac surgery utilizes small incisions and advanced technologies such as laparoscopy, arthroscopy, endoscopy, and robotics. This approach reduces trauma, decreases recovery time and the risk of infection, and results in smaller, less visible scars. It allows for the treatment of cardiac problems with a smaller physical impact, facilitating a faster and more comfortable recovery. Although there were initial doubts about the safety of minimally invasive surgery, studies have proven it to be a safe procedure. The choice depends on the patient's clinical condition and the surgeon's experience. **CONCLUSION:** Minimally invasive techniques have gained prominence due to their ability to reduce postoperative discomfort and offer improved cosmetic outcomes compared to traditional techniques. Minimally invasive procedures (MIPs) reduce inflammatory responses, resulting in shorter recovery times, despite having a longer duration of cardiopulmonary bypass. Both techniques have their advantages and disadvantages, necessitating a personalized approach to treatment based on the patient's individual characteristics and the surgeon's expertise.

**80. VACCINATION COVERAGE AGAINST POLIOMYELITIS IN MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Poliomyelitis is an acute contagious infection caused by the poliovirus, transmitted by fecal-oral and respiratory contact and which can lead to irreversible paralysis due to infection of the spinal cord and brain, with vaccination as the only form of prevention. Since 2016, the polio vaccination schedule consists of three doses of the injectable vaccine (IPV) at 2, 4 and 6 months, in addition to two booster doses with the bivalent oral vaccine (OPV). In Brazil, the disease has been eradicated, but its vaccination coverage has been below that recommended by the WHO (95%) since 2016, which represents a threat to public health. Thus, this study aims to analyze the polio vaccination coverage from 2012 to 2022 in the state of Maranhão. **METHODS:** This is a cross-sectional, retrospective, descriptive and quantitative study based on secondary data provided by the Department of Information Technology of the Unified Health System (DATASUS) on polio vaccination coverage in Maranhão from 2012 to 2022. The variables considered were "year", "capital", "polio", "polio 1st ref" and "polio 4 years". **RESULTS:** Regarding general immunization against polio in the state of Maranhão, in the period covered, the year 2013 had the highest vaccination coverage (n = 105.73%), while 2020 had the lowest (n = 60.91%). Regarding the first polio booster, registered since 2013, 2013 had the highest vaccination coverage (n=95.68%), while 2021 had the lowest (n=47.42%); while, regarding the second booster at 4 years of age, registered since 2017, coverage was highest in 2022 (n=49.98) and lowest in 2020 (n=35.41). In relation to the capital of Maranhão, São Luís, total polio vaccination coverage was highest in 2015 (n=104.6%) and had the lowest value in 2020 (38.02%). **CONCLUSION:** The study shows a significant reduction in the rates of general immunization and the first booster, possibly due to the increase in the phenomenon of vaccine hesitancy, the lack of perception of the risk and severity of the disease by the current generation of parents, and the difficulty in accessing health services during the pandemic period. Despite the increase in the numbers of the second booster, the state remains below the ideal vaccination coverage recommended by the WHO, a scenario exemplified by the decrease in vaccination in the capital. Therefore, it is essential to increase vaccination coverage to prevent the return of the disease.

**81. VACCINATION OF PREGNANT WOMEN WITH DTPA IN MARANHÃO: EFFECTS OF THE COVID-19 PANDEMIC**

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**INTRODUCTION:** The diphtheria-tetanus-pertussis (dTpa) vaccine is of great importance to society, especially for pregnant women, as it offers protection against potentially dangerous diseases such as tetanus, diphtheria, and pertussis. Vaccination of pregnant women with dTpa is recommended to prevent neonatal morbidity and mortality from pertussis, as antibodies cross the placental barrier. The Ministry of Health has been offering the dTpa (acellular) vaccine to pregnant women since November 2014, through the National Immunization Schedule by the Unified Health System (SUS). The emergence of the COVID-19 pandemic impacted various health sectors, especially vaccination campaigns and rates. The scenario imposed by the pandemic, leading to the confinement of people and social distancing, abruptly changed society's routine and was a major factor in the decline in immunization percentages. The objective of this study was to analyze the vaccination coverage of the diphtheria-tetanus-pertussis (dTpa) vaccine in pregnant women in the state of Maranhão during the years 2020, 2021, and 2022, a period marked by the COVID-19 pandemic, aiming to understand the pandemic's impact on vaccination rates. **METHODS:** This is an epidemiological, retrospective, and quantitative study on dTpa vaccination. The unit of analysis chosen was the state of Maranhão during the COVID-19 pandemic years (2020, 2021, and 2022). Data were obtained through the Department of Informatics of the Unified Health System (DATASUS) and the TaBNeT tabulation tool. Variables such as dTpa vaccination coverage in pregnant women and the years 2020, 2021, and 2022 were used. **RESULTS:** In 2020, vaccination coverage was 38.10% in the state of Maranhão. In 2021, coverage was 39.27%, and in 2022, the immunization rate reached 47.51% of the Maranhão population. There was an increase in dTpa vaccination coverage in 2021 compared to 2020, with a rise of 1.17%. When comparing the years 2021 and 2022, an 8.24% increase in vaccination coverage was observed. **CONCLUSION:** The diphtheria-tetanus-pertussis vaccine is very important for pregnant women, as it offers protection against diphtheria, tetanus, and pertussis. Analyzing the dTpa vaccination coverage in Maranhão during the pandemic years shows a slight increase in coverage.

**82. TRADITIONAL AND VIDEOLAPAROSCOPIC CHOLECYSTECTOMY IN MARNHÃO OVER 10 YEARS**

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**INTRODUCTION:** Surgery for the removal of the gallbladder is justified in the treatment of gallstone diseases, neoplasms, and complications related to this organ. It can currently be performed in two ways: the traditional method, through a mini-laparotomy, and videolaparoscopy, through small incisions. Thus, the present study aims to compare, over a 10-year period, the two surgical modalities in Maranhão, exploring the main variables regarding the procedures. **METHODS:** This is an ecological study with a quantitative and descriptive approach to hospital admissions for traditional and videolaparoscopic cholecystectomy reported in Maranhão between 2014 and 2023. Data were extracted from the Hospital Information System (TABNET/DATASUS). The study variables are: year, hospital admissions by procedure, average cost, average length of stay, and deaths. **RESULTS:** Between 2014 and 2023, a total of n=65,068 procedures were performed, of which approximately 76% were done using the traditional method, while only 24% used the more modern technique. In 2014, the largest percentage difference between the types of procedures was recorded, with 80.9% performed traditionally. Regarding deaths during the period, traditional surgeries registered more than three times the number of deaths (n=94) compared to videolaparoscopic surgeries (n=30). Concerning the average hospital stay, the videolaparoscopic technique showed an average of 3.7 days, while the traditional method had an average of 2.8 days. Furthermore, the difference in average costs between the two types of surgery varied little over the years, with the largest difference recorded in 2015 at R\$198, and the smallest in 2022 at about R\$16. **CONCLUSION:** The data show that videolaparoscopic cholecystectomy offers certain advantages for patients compared to the other method, as there is a lower number of deaths. Additionally, the average cost per hospital admission does not justify such a disparity in the number of cases in the state. This reality highlights the need to expand the use of this excision modality to improve the population's quality of life, particularly by reducing deaths.

**83. CORRELATION BETWEEN INCIDENCE AND KNOWLEDGE ABOUT HIV AMONG HOMELESS PEOPLE**

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**INTRODUCTION:** It is understood that the incidence of infection by the human immunodeficiency virus (HIV) is higher in groups with low education, sex workers and drug users, therefore, it is traditionally associated with the socioeconomic conditions (SES) of affected individuals. Understanding that homeless people (PSR) fit into more than one of these topics and that there is a relationship between incidence and inefficiency of sexual education, the research aims to correlate the level of knowledge about HIV and seropositivity in PSR. **METHODS:** questionnaires on CSE and knowledge about HIV were administered and a rapid test for HIV was carried out in HP in the neighborhoods of Monte Castelo, Deodoro, Mercado Central, João Paulo and Cohab in São Luís, Maranhão. Opinion: 5794987. **RESULTS:** 64 PSR were interviewed and tested, of which 30% were positive, among them 42% believe that there is a vaccine that prevents HIV infection and that the disease can be cured with the use of antibiotics, while only 28.8% of healthy people believe so; 63% did not know how to differentiate HIV from human immunodeficiency syndrome (AIDS) and 26% believe that HIV can be transmitted by coughing/sneezing and sharing personal objects; 36% say they can contract HIV by sitting on the toilet after an infected person; It is also noted that only 26% of HIV-positive people always use condoms. Regarding CSE of HIV-positive people: 57% have incomplete primary education, 5% have completed secondary education and no one has a higher education degree; the majority do not have access to public places to sleep or practice personal hygiene; the fashionable age is between 40 and 50 years old; 63% are self-employed, 10% are salaried, 10% are retired and 15% are unemployed. **CONCLUSION:** among the volunteers who tested positive for HIV, there appears to be a relationship between social conditions and level of knowledge about HIV with the incidence of infection. The misinformation about forms of contagion and prognosis proved to be striking, probably associated with inefficient or non-existent sexual education, which should also be taught at school, but the minority completed high school.

**84. POST-CRANIOPHARYNGIOMA RESECTION METABOLIC COMPLICATIONS: A CASE REPORT**

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**INTRODUCTION:** Craniopharyngioma is a rare benign tumor of the sellar and parasellar region, but with high morbidity due to its proximity to intracranial structures such as the pituitary gland, hypothalamus, and optic chiasm. Treatment involves surgery and sometimes radiotherapy. Patients may develop significant post-operative metabolic complications, such as weight gain and metabolic syndrome, due to hormonal and hypothalamic damage. This report aims to describe the metabolic complications of a patient following craniopharyngioma resection and discuss management and prevention strategies. This study was approved by CEP-HUUFMA (CAAE 63982722.2.0000.5086). **CASE DESCRIPTION:** I.V.B.R., female, presented to the neuroendocrinology service in 2019 at the age of 14 with intense headache, confusion, agitation, and amenorrhea. Imaging revealed a solid expansive lesion in the sellar and suprasellar region, measuring 3.8 x 3.0 x 2.2 cm, suspected to be a craniopharyngioma. The patient had preoperative gonadotropic and somatotrophic deficiencies and was on glucocorticoid therapy (prednisone 7.5 mg/day). Prior to resection, she presented with elevated triglycerides (172 mg/dl) and low HDL (35 mg/dl), treated with simvastatin 20 mg/day. After transcranial resection in March 2022, she developed panhypopituitarism, including arginine vasopressin deficiency, thyrotropic and corticotropic deficiency, as well as significant weight gain (12.7 kg in 3 months). Her BMI was 25.5 kg/m<sup>2</sup> (overweight), and by April 2023, it had increased to 31.4 kg/m<sup>2</sup> (grade I obesity), with blood pressure of 140x90 mmHg, fasting glucose of 153 mg/dl, triglycerides of 357 mg/dl, and HDL of 24 mg/dl. There was still a residual lesion of 1.2 cm in the pituitary gland in its largest axis, stable postoperatively. Current treatment includes prednisone (5 mg/day), nasal DDAVP (0.1 mg/ml, 3 puffs/day), metformin (1500 mg/day), and levothyroxine (125 mcg/day), with dietary adjustments and exercise guidance, maintaining stable weight with difficulty losing it. The patient is being followed by a multidisciplinary team. **CONCLUSION:** This case illustrates the complexity of post-craniopharyngioma resection management, highlighting the impact of hypothalamic and hormonal dysfunction on weight and metabolic syndrome. Controlling these complications requires continuous monitoring, therapeutic adjustments, and dietary interventions. An integrated approach is crucial to improving clinical outcomes and patient quality of life.

**85. DECOMPRESSIVE CRANIOTOMY IN THE NORTHEAST FROM 2014 TO 2023**

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**INTRODUCTION:** Decompressive craniotomy (DC), a procedure used in the management of acute neurological conditions such as extensive cerebral infarction and intracranial hemorrhage, involves the partial removal of the skull to reduce intracranial pressure and improve compliance and balance of cerebral hydrodynamics. In this context, DC is associated with reduced mortality and improved neurological outcomes. Given this, this work aims to describe the epidemiological profile of DC in the Northeast region of Brazil from 2014 to 2023. **METHODS:** This is an epidemiological, quantitative, and descriptive study conducted in July 2024. Secondary data were collected from DATASUS/TABNET using the SUS Hospital Procedures indicator in the Northeast Health Region. For the study period, the following variables were selected: approved AIH, year of service, nature of the service, average length of stay, average service cost per AIH, deaths, and mortality rate. Descriptive statistics were employed for data analysis. **RESULTS:** There were 7,792 cases, with a peak in 2021 at 12.14% (n= 946). Additionally, high numbers were observed, showing a trend of growth over the last 5 years analyzed. The national average length of hospital stay was 15.1 days; however, the years from 2019 to 2023 were above average, with 2022 being the longest at 16.3 days. The average cost per AIH was R\$5,038.33; however, this amount was exceeded from 2019 to 2023, with 2023 recording the highest value at R\$6,019.86. There were 2,369 deaths, with the highest prevalence in 2021 at 12.07% (n= 286). Regarding the nature of care, 91.04% were classified as urgent (n= 7094), with a mortality rate of 30.52 per 1,000 inhabitants, exceeding the national average rate of 30.40 per 1000 inhabitants. **CONCLUSION:** The number of decompressive craniotomies performed in the Northeast has increased in recent years, resulting in a significant reduction in the number of deaths. In over 90% of cases, DC is performed as an emergency procedure, requiring prompt attention. Therefore, increasing the number of trained professionals in DC and sustaining this growth are essential measures to continue reduction of mortality. However, there is a high cost associated with DC, necessitating the organization of public financial resources to cover the expenses of the procedure and hospitalization, as it typically exceeds 10 days in most cases.



**86. CHILDREN WITH HIV: ANALYSIS OF REGIONAL AND BRAZILIAN INCIDENCE BETWEEN 2013 AND 2023**Marcos Antonio Martins Pereira<sup>1</sup>, Debora Cristina Ferreira Lago<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The human immunodeficiency virus (HIV) is responsible for acquired immunodeficiency syndrome (AIDS). In recent years, AIDS has become a global epidemic, affecting even children. In Brazil, the 2023 HIV epidemiological bulletin indicates 63.9% reduction in deaths among children under 5 years old. Nonetheless, this infection is still a major pediatric disease worldwide, with 1.5 million people under 15 years old with HIV. The main form of transmission to children is via the vertical route during pregnancy, childbirth or breastfeeding. There was an increase of more than 30% in the number of pregnant women with AIDS in 10 years. The research aims to analyze the incidence of children with a positive HIV diagnosis in Brazil and in the country's regions from 2013 to 2023. **METHODS:** This is an epidemiological, longitudinal, retrospective, quantitative and descriptive study using secondary databases available from the Department of Information Technology of the Unified Health System (DATASUS). The study population is made up of children and adolescents under the age of 15 years diagnosed with HIV in Brazil and in the country's regions between 2013 and 2023. The variables used were: year of diagnosis, age, confirmed cases, sex and region of residence. **RESULTS:** A total of 4,773 HIV-positive cases were found in children under 15 years between 2013 and 2023, with the Southeast with 1,467 cases and the Northeast with 1,391 cases accounting for almost 60% of all diagnoses. Comparing the data for 2013 and 2023, we see a reduction of 81.5% in positive AIDS cases among this age group. This significant reduction is also seen in the gender variable, since when analyzing the total number of diagnoses in 2013 and 2023 we see a decrease of 79% for boys and 83% for girls. **CONCLUSION:** Based on the analysis of the data, it can be concluded that there has been a significant decrease of more than 80% in AIDS cases in the pediatric population, even with more HIV-positive pregnant women. This is the result of applying the Ministry of Health's Clinical Protocols and Therapeutic Guidelines to pregnant women in order to control the infection and reduce the viral load, thus preventing vertical transmission and HIV infection in the child.

**87. POSTOPERATIVE DELIRIUM: A COMPARATIVE STUDY BETWEEN GENERAL AND REGIONAL ANESTHESIA**Pedro Igor de Sousa Rios<sup>1</sup>, Rodrigo Almeida da Paz<sup>1</sup>, Lucas de Moura Kurz<sup>1</sup>, Bianca Sousa Belfort Ferreira<sup>1</sup>, Isabela Pinheiro Souza<sup>1</sup>, Welbert Souza Furtado<sup>1</sup>, Cyro Franklin Conceição Vieira<sup>2</sup>.<sup>1</sup> Federal University of Maranhão; <sup>2</sup> São Domingos Hospital

**INTRODUCTION:** Postoperative delirium (POD) is one of the most concerning conditions for physicians in anesthetic management. It predominantly occurs following major surgeries, particularly in patients with multiple comorbidities and in the elderly. In this context, the advent of regional anesthesia techniques allows for the avoidance of general anesthesia, which utilizes hypnotic agents that act on the Central Nervous System. This could provide an alternative to prevent this undesirable event. The objective of this study is to compare the incidence of delirium in the postoperative period between general and regional anesthesia techniques. **METHODS:** This is an integrative review of the medical literature, utilizing the databases PubMed, BVS, and Web of Science. The search strategy included the terms "postoperative delirium" and "general anesthesia" or "general anaesthesia," as well as "regional anesthesia" or "regional anaesthesia." Studies published between 2014 and 2024 were included to address the question: "Is there a difference in the incidence of postoperative delirium between general and regional anesthesia?" Studies that did not meet the above criteria, duplicated across databases, commentaries, editorials, and case reports were excluded. **RESULTS:** After a meticulous analysis, 12 articles were selected. Eight systematic review studies (including five meta-analyses) demonstrated no significant difference between the anesthetic techniques regarding their association with POD incidence. Nonetheless, only one meta-analysis indicated that regional anesthesia was associated with a lower occurrence of POD (38 percent reduction,  $p < 0.01$ ). Among the four population-based retrospective studies, one study reported a 2.5 percent lower POD rate ( $p < 0.001$ ), while the others highlighted only the established benefits of regional anesthesia, such as reduced opioid use and lower pain levels. Finally, all articles illustrated the need for more randomized clinical trials, given the scarcity of specific and reliable data to date. **CONCLUSION:** The majority of the studies analyzed did not demonstrate the superiority of regional anesthetic techniques over general anesthesia in reducing postoperative delirium. The established benefits of regional blocks remain consistent with the existing medical literature. However, there is a pressing need for studies employing more rigorous and reliable methodologies, as there was no absolute consensus regarding the advantage of regional anesthesia in elderly patients concerning the mitigation of postoperative delirium.

**88. CHALLENGES IN THE ERADICATION OF HEPATITIS C IN MARANHÃO: AN EPIDEMIOLOGICAL STUDY**Ilmarya Barros Pereira<sup>1</sup>, Josivania Monteiro de Castro<sup>1</sup>, Hanne Lise Silva Guida<sup>1</sup>, Alessandra Porto de Macedo Costa<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** Hepatitis C is an infectious process of the liver caused by the hepatitis C virus (HCV), a disease that can lead to cirrhosis and liver cancer. The World Health Organization (WHO) estimates that 58 million people live with chronic HCV, thus establishing, in 2016, the goal of eliminating hepatitis C as a public health problem by 2030. In Maranhão, despite the reduction in notifications in 2020, faces challenges to contain its spread. This work aims to analyze the distribution of HCV infection from 2017 to 2022, as well as understand the challenges for its eradication in Maranhão.

**METHODS:** The epidemiological study conducted as a quantitative analysis of documentary data. Reactive cases of hepatitis C registered in the state of Maranhão were analyzed, according to the Notifiable Diseases Information System (SINAN) available at DATASUS, between the years 2017 and 2022. The variables included in the study were age group (15 to 39 years old and 40 to 64 years old), gender and the distribution of cases among the state's municipalities. **RESULTS:** It was observed that during the period studied, 562 cases reactive for hepatitis C were reported in the age group of 15 to 64 years in the state of Maranhão. The vast majority are in the age group of 40 to 64 years old, with 82.2% of cases. As for gender, females had a rate of 47.54% of positive tests and males, 52.46%. According to the municipality, São Luís showed the highest incidence in the state, followed by Imperatriz. There was also a significant increase in the number of reactive tests in 2018 (n= 150), followed by a drop in 2020 (n= 52) and a new increase in 2022 (n= 101). **CONCLUSION:** The incidence of hepatitis C in Maranhão varied significantly between 2017 and 2022, being higher in more developed urban centers, in males and in older age groups. This highlights the need for continuous epidemiological surveillance, with testing programs, especially in people over 40 years of age, and effective detection strategies, so that appropriate treatments can be carried out in order to reduce the burden of the disease. Furthermore, there is still a limitation in accurately quantifying and explaining the morbidity and mortality of this condition. More in-depth epidemiological studies are needed to better understand the evolution of the disease.

**89. DESFERIOXAMINE: IMPACT ON THE THERAPY OF MYCOBACTERIAL INFECTIONS**Joana Tenorio Albuquerque Madruga Mesquita Meireles Teixeira<sup>1</sup>, Ana Clara Freitas Martins Costa<sup>1</sup>, Pedro Lucas Brito Tromps Roxo<sup>1</sup>, Eduardo Martins De Sousa<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** Mycobacteria are Gram-positive, non-motile and highly pathogenic microorganisms related to several diseases such as leprosy, tuberculosis and soft tissue infections. Diseases caused by bacteria of the genus *Mycobacterium* represent a challenge to global public health due to the high survival capacity of mycobacteria and the increasing incidence of new strains resistant to conventional antimicrobials. Therefore, research into new therapeutic strategies has been encouraged. Thus, the pharmaceutical repositioning of desferrioxamine (DFO), a siderophore used as an iron chelator in pathological conditions, has aroused interest as a potential antimicrobial agent. Thus, this literature review seeks to explore the action of DFO on mycobacterial species, with emphasis on *Mycobacterium tuberculosis*. **METHODS:** This is an integrative literature review carried out in July 2024, with publications from the last 13 years in the electronic databases PubMed, SciELO and ScienceDirect. The descriptors "Mycobacterium", "Desferrioxamine" and "Desferrioxamine and Mycobacterium" were used. The final sample consisted of 10 articles in Portuguese and English. **RESULTS:** It is known that the bacterial biofilm is a complex structure that protects it against the action of antibiotics and the immune system of its host. DFO has properties that can inhibit the formation of biofilm in some mycobacteria, such as those that cause tuberculosis and other respiratory infections. By preventing the formation of biofilm, DFO makes the bacteria more susceptible to the action of antibiotics and the immune system, eradicating the pathogen and preventing its proliferation. **CONCLUSION:** In summary, desferrioxamine, due to its anti-biofilm action, presents a promising alternative for the treatment of diseases caused by bacteria of the genus *Mycobacterium*, such as tuberculosis and other respiratory infections. By inhibiting biofilm formation, DFO increases the effectiveness of the immune system and antibiotics against these pathogens, thus preventing their proliferation and favoring the eradication of the infection.

**90. DIAGNOSIS AND TREATMENT OF MEDIAL TIBIAL STRESS SYNDROME**

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**INTRODUCTION:** Medial tibial stress syndrome, known as 'shin splints', is common in athletes, caused by repetitive pressure, mainly due to excessive activity, and affects up to 70% of runners every year. It is characterised by pain along the posteromedial tibial border, induced by palpation. Given the imprecision of the term 'shin splints', the diagnosis and treatment of this condition is challenging. The aim of this study was therefore to review the main diagnostic and treatment methods for medial tibial stress syndrome. **METHODS:** This is a literature review, in which a search was carried out in the Scielo and PubMed databases, using the descriptors 'medial tibial stress syndrome', resulting in 29 articles. The inclusion criteria were articles available in full that covered the subject of the study. The time limit was limited to articles published in the last 5 years. **RESULTS:** The diagnosis of medial tibial stress syndrome is based on anamnesis and physical examination, given that studies show that imaging tests (X-ray, ultrasound and MRI), although capable of finding findings, are not able to differentiate between athletes with and without the condition. However, they are important for ruling out differential diagnoses. In addition, the presence of coexisting injuries at the time of diagnosis should be checked, which can alter the prognosis and treatment. As for the physical examination, it is necessary to palpate the region of the posteromedial tibial border, strengthening the diagnosis when the patient reports pain on palpation, as well as checking for the presence of other signs such as swelling or erythema. As for management, there is a lack of studies guaranteeing treatments with proven efficacy. Therefore, priority is given to conservative treatment, such as cryotherapy, stretching exercises, regional muscle strengthening, the use of non-steroidal anti-inflammatory drugs and individualised training programmes. Reducing the training load in terms of frequency, duration and distance has an impact on reducing the syndrome. **CONCLUSION:** The clinical history and physical examination are the pillars that guarantee the diagnosis of medial tibial stress syndrome. However, with regard to the treatment of the syndrome, there is a limitation in the literature of therapeutic options with proven efficacy.

**91. LATE DIAGNOSIS OF PARACOCIDIOIDOMYCOSIS: A CASE REPORT FROM PATIENT IN MARANHÃO**

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**INTRODUCTION:** Fungi of the genus *Paracoccidioides* can cause Paracoccidioidomycosis (PCM), a systemic disease with polymorphic character and similarities to tuberculosis (TB), which can also co-infect up to 10% of patients with PCM. In this context, the present study aimed to describe a case report of PCM with late diagnosis in a patient from the state of Maranhão. The study was approved by the research ethics committee and can be accessed with number 6.891.125. **CASE DESCRIPTION:** Male patient, 38 years old, fisherman, resident in a small city of Maranhão, attended the outpatient clinic of a private clinic specialized in Pneumology, complaining of dyspnea to small efforts, cough, progressive weight loss and evening fever for 11 months. At physical examination, cervical adenomegalia and pulmonary auscultation were observed with decreased vesicular murmurs. The patient reported that he sought medical attention after 5 months of the appearance of the first symptoms, when laboratory and imaging tests were requested, which showed eosinophilia and diffuse pulmonary disease, being diagnosed with TB. After the beginning of treatment for the initial hypothesis, there was exacerbation of the condition, with the appearance of acute dyspnea, which resulted in hospitalization for 4 days. In view of the clinical picture, a new chest radiography and bacilloscopy of sputum were requested. Radiography showed bilateral opacities and bacilloscopy showed negative result. After the first visit to the Pneumology clinic, considering the clinical history and the tests provided by the patient, there was a suspicion of PCM. Thus, an anatomopathological examination of a cervical lymph node fragment was requested, which showed granulomatous lymphadenitis with the presence of rounded yeast-like structures and capsular enhancement, being the findings compatible with PCM. Once the diagnostic suspicion was confirmed, treatment with itraconazole was started for 9 months. After 3 months of treatment, the patient returned to an outpatient clinic showing good evolution of the condition. **CONCLUSION:** The manifestations of PCM are respiratory conditions, skin signals and lymph nodes. Thus, it is noted that the clinical and radiological findings of this pathology are unspecific, making difficult diagnostic confirmation. Thus, it becomes evident the need to include PCM in the range of diagnostic hypotheses against any other similar picture reported in this study.

**92. DIAGNOSIS, RISKS AND FETAL COMPLICATIONS ASSOCIATED WITH GESTATIONAL DIABETES**

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**INTRODUCTION:** Gestational Diabetes Mellitus (GDM), a metabolic disorder established as a state of glucose intolerance, initially observed during pregnancy, and may or may not persist after delivery. In this sense, pregnancy becomes a high-risk period, as the levels of insulin produced by the pancreas become insufficient, developing insulin resistance in the pregnant woman and consequent congenital malformations. The objective of this work is to describe the main fetal complications associated with GDM, and the importance of early diagnosis and treatment to minimize risks. **METHODS:** A literature review was carried out, using the main databases: LILACS, Medline and Bireme. Using the following standardized descriptors: "Gestational Diabetes", "Congenital Abnormalities", "Diabetes Mellitus". Articles published in the last 10 years were included in the analysis, following the inclusion and exclusion criteria that addressed the topic. **RESULTS:** In Brazil, around 7.6% of pregnant women are diagnosed with GDM, a condition that significantly increases the risk of complications. A common physiological response during pregnancy is the development of insulin resistance, mediated by placental anti-insulin hormones. These hormones are crucial in ensuring a stable supply of glucose to the fetus. The hyperglycemia that can result from this condition compromises both the development of the yolk sac and the functionality of the placenta, requiring continuous monitoring throughout pregnancy. Furthermore, GDM can cause congenital malformations in vital systems such as the cardiovascular, central nervous and genitourinary systems, which can result in macrosomia, which refers to excessive fetal growth, neonatal convulsions and jaundice. These risks highlight the importance of careful management of maternal and fetal health. Some authors describe that these complications have been reduced when diagnosis and treatment are carried out at the right time. **CONCLUSION:** GDM screening should be carried out at the first prenatal consultation, through initial glycemic assessment tests, thus being able to direct the pregnant woman to treatment, avoiding fetal dysfunction and ensuring better outcomes for maternal-fetal health. Therefore, the need to implement effective strategies for monitoring, diagnosis and treatment is notable, ensuring that the negative impacts of this condition are minimized, reducing the associated risks.

**93. DIFFICULTIES IN PROVIDING HEALTH CARE TO QUILOMBOLAS: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** The Provision of Health Care (PHC) in Quilombola Communities (QCs) is a subject of significant debate in Brazilian society, considering that this population is engaged in actions to defend their culture and territory. Thus, there exists a coalescence of attempts at integration and preservation of identity, which impacts the PHC. Therefore, the Family Health Strategy (FHS) faces important challenges in ensuring access to health services in these territories. The aim of this study is to identify the difficulties associated with PHC in quilombos in Brazil. **METHODS:** This is an integrative literature review, conducted through an advanced search on the Virtual Health Library platform, using the descriptors "Health Care Provision" and "Quilombola Communities," combined with the Boolean operator AND. The inclusion criteria were articles in Portuguese published in the last 5 years, from 2019 to 2023, while the exclusion criteria included incomplete materials, paid content, duplicates, and literature reviews. The search yielded 13 studies, of which 5 aligned with the objectives of this work. **RESULTS:** A qualitative study in northern Minas Gerais highlighted that popular knowledge influences Health Care Provision (HCP) in quilombos, as there is a constant use of home remedies and herbs, along with a preference for hospital care over the FHS. Additionally, economic vulnerability hinders travel to consultations. Another qualitative study in Quissamã, Rio de Janeiro, revealed that QCs are often forgotten by authorities, evidenced by the lack of disease awareness campaigns and underreporting during the pandemic. Research in quilombos around Fortaleza showed that places like churches, community spaces, and markets have taken on the role of health care providers for this population, due to the ineffectiveness of health entities. **CONCLUSION:** There is an attempt to preserve transgenerational knowledge to maintain practices related to the use of herbs and home remedies, which impacts treatment adherence and effectiveness. Furthermore, the predominance of seeking hospital care hinders Primary Health Care, as the FHS assumes a secondary role in the prevention and treatment of diseases. Socioeconomic determinants prevent quilombola communities from accessing health services, leading them to opt for alternative care. Therefore, specific public policies should be developed to democratize access to healthcare and facilitate PHC in these communities.

**94. EFFECTS OF GLP-1 THERAPY IN PARKINSON'S DISEASE: A META-ANALYSIS OF RANDOMIZED TRIALS**

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**INTRODUCTION:** Insulin resistance (IR) plays a significant role in the development of Parkinson's disease (PD) due to oxidative stress and protein aggregation. Glucagon-like peptide-1 (GLP-1) analogs have neuroprotective, anti-inflammatory, and antioxidant properties, as well as insulin-sensitizing effects. However, their therapeutic potential for motor and non-motor symptoms in PD remains unclear. Therefore, this meta-analysis aims to explore the impact of GLP-1 therapy on symptom improvement and quality of life in adults diagnosed with PD. **METHODS:** We searched PubMed, Cochrane, and Embase for randomized controlled trials (RCTs) comparing GLP-1 analogs to placebo or other treatments for PD. The outcomes assessed included motor symptoms, non-motor symptoms (such as neuropsychiatric, gastrointestinal, and sensory disorders), and quality of life (measured by activities of daily living, cognition, and mobility, among others). Statistical analysis was performed using RevMan 5.4.1, with heterogeneity measured by the  $I^2$  statistic. **RESULTS:** We included five studies involving 480 patients, of whom 250 (52.08%) received GLP-1 treatment. Follow-up ranged from 8 to 14 months. The primary outcome, motor impairment, assessed by the Movement Disorder Society Unified Parkinson's Disease Rating Scale (MDS-UPDRS) part 3, showed a significant reduction in patients treated with GLP-1 (MD -2.87; 95% CI -4.95 to -0.79;  $p = 0.007$ ;  $I^2 = 86\%$ ) compared to placebo or other therapies, demonstrating a clear advantage. Secondary outcomes for non-motor dysfunctions, measured by the Non-Motor Symptom Scale (NMSS), did not show statistical significance (MD 0.7; 95% CI -2.88 to 4.28;  $p = 0.70$ ;  $I^2 = 55\%$ ). Quality of life, as assessed by the Parkinson's Disease Questionnaire (PDQ-39), also did not reach statistical significance for the intervention (MD -1.30; 95% CI -3.00 to 0.39;  $p = 0.13$ ;  $I^2 = 78\%$ ). Adverse effects such as weight loss, constipation, and nausea were reported with GLP-1 administration. **CONCLUSION:** GLP-1 therapy for an average period of 12 months appears to improve motor symptoms such as rigidity, bradykinesia, unsteadiness, and resting tremor in adults with PD. However, its benefits for non-motor symptoms and improving quality of life remain debatable. These findings underscore the need for additional RCTs to further investigate the relevance and management of GLP-1 in the treatment of PD and its broader implications.

**95. EFFECTS OF USE OF SEMAGLUTIDE IN CONTROLLING OVERWEIGHT**

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**INTRODUCTION:** Semaglutide is a glucagon-like peptide 1 receptor (GLP-1RA) agonist, initially intended for the treatment of type 2 diabetes mellitus and, more recently, used in weight loss processes. Its approval for therapeutic use is relatively recent and is currently available in subcutaneous and oral formulations. This drug has gained worldwide relevance not only in the pharmaceutical market, but also in the scientific field, both in its clinical perspective and in its adverse effects. The objective of this study is to analyze the effects and safety of semaglutide in the weight loss process in overweight patients, as well as to evaluate the adverse effects associated with its use. **METHODS:** This is an integrative literature review, using 10 scientific articles published between 2021 and 2024, based on data from PubMed, SciELO and Google Scholar in English and Portuguese and secondary data from the Ministry of Health, using the descriptors "semaglutide", "overweight" and "obesity". **RESULTS:** Research demonstrates the effectiveness of semaglutide in inducing weight loss in overweight patients, with or without diabetes, showing average reductions of 14% to 17% in body mass. Furthermore, an improvement was observed in cardiometabolic conditions, such as blood pressure, blood glucose and levels of stored lipids. These benefits are related to the reduction of excess body fat and improved glycemic control. However, there are adverse effects associated with the use of the drug, including gastrointestinal problems such as nausea, vomiting and diarrhea, which are generally transient and not very debilitating. Furthermore, the association with cholelithiasis, pancreatitis and pancreatic tumors is not yet significant and requires a greater understanding of the cause and effect mechanisms between the use of the medication and clinical conditions. **CONCLUSION:** It appears, therefore, that the use of semaglutide has shown promise in the process of losing body mass, however, a long-term evaluation of its side effects and the appearance of clinical conditions secondary to the use of the drug is still necessary.

**96. EFFECTS OF SGLT2 INHIBITORS ON HEART FAILURE WITH REDUCED EJECTION FRACTION**

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**INTRODUCTION:** Heart failure (HF) is a serious public health problem and reduced ejection fraction (HFrEF), which is defined as left ventricular ejection fraction (LVEF)  $\leq$  40%, is an important clinical factor in assessing the progression of the disease. Sodium-glucose cotransporter 2 (SGLT2) inhibitors have been evaluated for their effects on this clinical condition, possibly improving the prognosis of the disease, even in decompensated patients. With this in mind, this study aims to evaluate the clinical effects of these drugs on the prognosis of patients with HFrEF. **METHODS:** A systematic search was carried out for clinical trials evaluating SGLT2 inhibitors and their effects on the treatment of HFrEF. To identify eligible articles, a search was carried out in the Pubmed, Scielo and Lilacs databases, in which the search was limited to articles in English in the last 5 years, thus selecting articles published between 2019 and 2024. The following descriptors were used for the search: "SGLT2 inhibitors" AND "cardiovascular outcomes"; "SGLT2 inhibitors" AND "heart failure"; "SGLT2" AND "heart failure". Articles that were out of date, in non-English, non-original and dealing with HF with preserved LVEF were excluded. **RESULTS:** 11 articles were included, which mainly assessed the elderly population and whose main findings were a reduction in hospitalizations and mortality in patients with HFrEF who used SGLT2 inhibitors, mainly dapaglifozin and empaglifozin, even in cases of exacerbation of the disease. In addition, a possible reduction in the decline in glomerular filtration rate was observed in patients with this disease, reducing renal complications, which are common in patients with severe HF. However, some studies have not shown significant changes in LVEF, which may not indicate an improvement in the condition, but only a reduction in the decompensation of the disease. **CONCLUSION:** Therefore, the use of SGLT2 inhibitors may be an important measure in reducing hemodynamic imbalance in HFrEF, reducing the number of hospitalizations and cardiovascular deaths. However, it is important to assess whether these effects can also lead to regression of this clinical condition by improving parameters such as LVEF. In this context, future studies evaluating larger populations could possibly contribute to advances in treatment and improvements in patients' clinical parameters.

**97. EFFICACY OF NERVE BLOCKS IN ORTHOPEDIC SHOULDER SURGERIES**

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**INTRODUCTION:** Shoulder surgeries, in general, have a very painful postoperative period, and nerve blocks in orthopedic shoulder surgeries are used to reduce pain and decrease the use of opioids postoperatively. Thus, the objective of this study is to analyze the efficacy of this type of technique. **METHODS:** Following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), a systematic review was conducted to evaluate the efficacy of nerve blocks in orthopedic shoulder surgeries. The search strategy in the PubMed and Embase databases was as follows: ('shoulder surgery' OR 'shoulder arthroplasty' OR 'rotator cuff repair') AND ('nerve block' OR 'nerve blocks' OR 'peripheral nerve block' OR 'peripheral nerve blocks' OR 'regional anesthesia') AND 'efficacy'. Randomized clinical trials and controlled studies published between 2019 and 2024 were included, excluding systematic reviews and meta-analyses. In total, 226 articles were excluded and 9 were included. **RESULTS:** The primary technique for postoperative pain control in shoulder surgeries is the interscalene brachial plexus block (ISB), as it effectively controls pain in the initial hours, thereby reducing postoperative opioid use. Conversely, the costoclavicular suprascapular block resulted in less diaphragmatic paralysis compared to ISB—a disadvantage of ISB that can be dangerous for patients with significant respiratory disease. The nerve block was also found to be more effective than intravenous acetaminophen after 24 hours post-surgery; however, after 72 hours, acetaminophen managed to minimize pain more efficiently. Lastly, performing ISB with the addition of dexamethasone proved advantageous in terms of prolonging the duration of analgesia and reducing pain rebound after the block's effect diminishes. **CONCLUSION:** Nerve blocks in shoulder surgeries are effective in controlling pain and reducing opioid use. The interscalene brachial plexus block (ISB) is highly effective in the initial hours but can cause diaphragmatic paralysis, which is a concern for patients with respiratory problems. The suprascapular costoclavicular block has a lower incidence of this paralysis, making it a viable alternative. The addition of dexamethasone to ISB and other types of peripheral nerve blocks prolongs analgesia and reduces rebound pain, improving patient satisfaction.

**98. BARRIERS TO ANTIBIOTIC THERAPY IN BACTERIAL RESISTANCE IN CAP: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Antimicrobial resistance (AMR) is one of the top 10 global public health threats, with estimates suggesting that by 2050 it could be responsible for approximately 10 million deaths. Streptococcus pneumoniae, the main etiological agent of Community-Acquired Pneumonia (CAP), ranks 4th on the list of pathogens linked to AMR-related deaths, highlighting the risk posed by CAP in the context of rising superbugs. In this context, this study aims to examine the challenges of antibiotic therapy for CAP in the context of bacterial resistance. **METHODS:** An integrative review based on the PRISMA protocol. The descriptors 'community-acquired bacterial pneumonia', 'drug resistance', and 'hospital' were used in the Pubmed, Medline, and Lilacs databases. Primary articles published in the last 5 years were selected, without language restrictions, focusing on AMR and antibiotic therapy in CAP, while excluding studies unrelated to the topic, case reports, infections in children/neonates, and those not available in full. **RESULTS:** Out of 197 studies identified, 6 met the inclusion and exclusion criteria for this review. Key challenges highlighted by the authors included: the rising prevalence of multidrug-resistant bacteria, the empirical nature of antibiotic therapy due to the inability to determine the etiological agents, the emergence of atypical pathogens, instances of viral co-infection, initial antimicrobial therapies (IAT) targeting only typical bacteria while neglecting atypical ones, adverse reactions and interaction between pathogens and treatments. The use of predictive scores based on clinical and laboratory data was mentioned as a tool for the safe application of atypical antibiotic coverage. The consequences of IAT in CAP patients included longer hospital stays, increased healthcare costs, and higher mortality rates. Chronic obstructive pulmonary disease was identified as the major risk factor for morbidity and hospitalization due to CAP. **CONCLUSION:** The rise of multidrug-resistant pathogens presents significant public health challenges in managing CAP, particularly due to the reliance on empirical therapy and the emergence of atypical pathogens, which complicates clinical decision-making for appropriate IAT. To improve therapeutic precision, it is essential to implement measures such as predictive scoring systems, ongoing AMR surveillance, and attention to prevalent pathogens and risk factors, facilitating a more effective and personalized approach to this growing health concern.

**99. EPIDEMIOLOGY OF TUBERCULOSIS-HIV COINFECTION AMONG HOMELESS INDIVIDUALS IN BRAZIL**

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**INTRODUCTION:** Tuberculosis is an infectious bacterial disease primarily caused by *Mycobacterium tuberculosis* (Koch's bacillus). It is well established that individuals with poor socioeconomic conditions and those who are immunosuppressed are more susceptible to developing tuberculosis. This study aims to characterize the epidemiological profile of homeless individuals co-infected with tuberculosis and human immunodeficiency virus (HIV) in Brazil. **METHODS:** This was a descriptive, retrospective, and quantitative study of confirmed cases of tuberculosis and HIV coinfection among homeless individuals. Data were obtained from the Notifiable Diseases Information System, available through the Department of Informatics of the Unified Health System, for the period from 2019 to 2023. The analysis considered parameters such as region, age group, sex, form of disease presentation, confirmed acquired immunodeficiency syndrome (AIDS), and outcome. **RESULTS:** During the five-year period studied, 5,066 cases of tuberculosis-HIV coinfection among homeless individuals were reported. The Southeast region accounted for the highest proportion of cases (39.7%, n = 2,016), followed by the South (28.4%, n = 1,440). The population was predominantly composed of individuals aged 20 to 39 years (54.4%, n = 2,756) and 40 to 59 years (41.9%, n = 2,127). Males (70.1%, n = 3,552) were more affected than females (29.8%, n = 1,513). Pulmonary tuberculosis was the most common form of the disease (86%, n = 4,360). The majority of individuals had confirmed AIDS (92.4%, n = 4,682). The main outcomes were treatment abandonment (34.1%, n = 1,731), cure (16.1%, n = 820), and death from other causes (15.5%, n = 790). **CONCLUSION:** Homeless individuals co-infected with tuberculosis and HIV were predominantly young males. Over 90% of these individuals had confirmed AIDS, a known risk factor for developing tuberculosis. The pulmonary form of the disease was the most prevalent, consistent with findings in the literature. Treatment abandonment remains a significant challenge, as interventions require a minimum duration of six months, which is complicated by the precarious living conditions of the homeless population. The Southeast and South regions reported higher numbers of co-infected individuals, likely due to more effective notification and diagnostic systems, as well as greater population density and urbanization.

**100. EPIDEMIOLOGY OF LEPROSY IN THE ELDERLY IN MARANHÃO: ANALYSIS OF CASES FROM 2018 TO 2023**

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**INTRODUCTION:** Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*. It is a public health issue and is classified as a notifiable disease. Despite advancements in diagnosis and treatment, the impacts of the disease are significant, especially in vulnerable populations. This study aims to analyze the epidemiological data on leprosy in the elderly population in Maranhão between 2018 and 2023. **METHODS:** This is a cross-sectional analytical study of leprosy cases in the elderly population in the state of Maranhão between the years 2018 and 2023. The data were collected from the Informatics Department of the Unified Health System (DATASUS), considering the following variables: year of notification, age group, health macroregion, race, sex, and education level. **RESULTS:** From 2018 to 2023, respectively, 951, 982, 629, 691, 813, and 227 cases were reported. By age group, 2,435 cases were recorded among those aged 60-69 years; 1,363 for those aged 70-79; and 495 for those aged 80 years or older. In the health macroregions, the cases were distributed as follows: 894 in the South, 1,317 in the East, and 2,172 in the North. Regarding racial distribution, 728 cases were reported among Whites, 729 among Blacks, 27 among Asians, 2,734 among Mixed-race individuals, and 15 among Indigenous people, with 60 cases lacking racial information. Concerning sex, there was a predominance of cases in men, with 2,781 records (64.7%), compared to 1,512 cases in women (35.3%). In terms of education level, 1,275 cases were recorded among the illiterate, 1,759 among those with incomplete primary education, 175 with complete primary education, 81 with incomplete secondary education, 250 with complete secondary education, 16 with incomplete higher education, and 70 with complete higher education. **CONCLUSION:** It is concluded that leprosy cases were more pronounced in men aged 60-69 years, predominantly among mixed-race individuals, suggesting socioeconomic influences. The East and North macroregions were the most affected, highlighting priority areas for health interventions. Most cases were recorded among the illiterate and those with incomplete primary education, indicating an association between low education levels and a higher risk of leprosy. The years 2020 and 2021 saw fewer cases due to the COVID-19 pandemic and associated underreporting, while the reduction in 2023 can be attributed to the ongoing impacts of the pandemic on data collection. Finally, there is an urgent need to implement health strategies focused on education, early diagnosis, and treatment, especially in the most vulnerable regions and groups, to improve the quality of life of the elderly.

**101. EPIDEMIOLOGY OF PROSTATE CANCER MORTALITY IN THE BAIXADA MARANHENSE FROM 2013 TO 2022**

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**INTRODUCTION:** The prostate is a gland found exclusively in men, with a secretory function. The fluid it produces has a basic pH, essential for alkalizing the vaginal environment, giving semen its milky appearance and characteristic odor. The prostate is located directly in front of the rectum, which explains the need for a digital rectal examination as a method of prostate evaluation. Prostate malignancy ranks second in incidence among tumors affecting men in Brazil. In light of this condition, the objective of this study was to analyze the epidemiological profile of mortality due to malignant prostate neoplasms in the Baixada Maranhense region. **METHODS:** This is a descriptive epidemiological study conducted between 2013 and 2022 in Baixada Maranhense, with data obtained from the Mortality Information System (SIM) through the Health Informatics Department of the Unified Health System (DATASUS), with the cause being ICD-BR-10: malignant prostate neoplasm. In addition, variables such as race, age group, and education level were considered. **RESULTS:** A total of 287 deaths from malignant prostate neoplasms were recorded in Baixada Maranhense. An approximate average of 28.7 deaths/year was observed from 2013 to 2022, with the highest incidence in 2017 (37 deaths) and the lowest in 2015 (20 deaths). The city with the highest prevalence was Pinheiro, with 56 recorded cases, while Igarapé do Meio had only 2 cases. Regarding education, the most affected group was those with no formal education (136 cases). In terms of race, 173 mixed-race individuals were affected. The most affected age group was 80 years or older, with 120 recorded cases. **CONCLUSION:** The mortality rate during the study period varied, with a decreasing trend from 2013 to 2015, and 2017 being the year with the highest mortality rate. In this regard, Pinheiro showed the highest prevalence compared to other municipalities in Baixada Maranhense, especially in 2019. On the other hand, the municipality of Igarapé do Meio had the lowest rate, with only 2 cases. Therefore, combating prostate cancer in Baixada Maranhense requires a joint effort from the government, society, and healthcare institutions. Effective actions can save lives and improve men's health, such as promoting the reduction of social inequalities in access to healthcare for the male population.



**102. EPIDEMIOLOGY OF PREMATURE MORTALITY FROM DIABETES MELLITUS IN BRAZIL FROM 2010 TO 2021**

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**INTRODUCTION:** Diabetes mellitus is characterized by a metabolic disorder due to insulin deficiency—a hormone responsible for maintaining balanced blood glucose levels—or reduced tissue sensitivity to this hormone, leading to abnormally high blood glucose levels. It can be classified into two types: Type 1, marked by the absence of insulin secretion, which characterizes insulin-dependent patients, and Type 2, characterized by insulin resistance. Inadequate lifestyle habits, such as a sedentary lifestyle and poor diet, contribute to worsening the condition in patients by impairing the endocrine system. With multifactorial manifestations, the disease is considered a public health issue, being the sixth leading cause of mortality in the Americas. This study aims to analyze the premature mortality rate (ages 30 to 69) in Brazil associated with diabetes mellitus, per 100,000 inhabitants, from 2010 to 2021. **METHODS:** This is a quantitative, retrospective, and descriptive study. Data were sourced from the Health System Performance Assessment Project (PROADESS) of the Oswaldo Cruz Foundation. The indicator matrix, specifically the Health Service Performance subsection and effectiveness tab, was used to obtain the premature mortality rate due to diabetes mellitus in Brazil. **RESULTS:** In 2010, the rate was 26.6%, with the Northeast region being the most affected, with 30.9% of cases. From 2010 to 2011, there was an approximate increase of 2% at the national level. In the following eight years, the percentage in Brazil remained relatively constant, with an average of approximately 24.5%. In 2020, the rate increased to 26.5%, with a slight drop to 26.2% in 2021. The Northeast region consistently had the highest rates during the analyzed period, with an overall average of 30%, while the Southeast had the lowest rates, with an average of 22%. The national average was 25%. **CONCLUSION:** There is a general increase in premature mortality associated with diabetes mellitus, highlighting the need for enhanced measures to combat and treat this disease.

**103. EPIDEMIOLOGY OF CONGENITAL SYPHILIS IN BAIXADA MARANHENSE IN THE PERIOD FROM 2018 TO 2022**

Flávia Rafaela Diógenes Ferreira<sup>1</sup>, Fernanda Diógenes Ferreira<sup>1</sup>, José Carlos Gomes Patriota Neto<sup>1</sup>, Tassya Jordana Coqueiro Batalha<sup>1</sup>, João Marcos Cordeiro Ribeiro Filho<sup>1</sup>, Ana Luísa Penha Castro Marques<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.

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**INTRODUCTION:** Congenital syphilis is an infectious disease transmitted to the fetus via the placenta, and is considered an indicator of the quality of maternal health in a region, since the causative agent of syphilis, *Treponema pallidum*, is a preventable pathogen. Thus, if the disease is diagnosed and treated appropriately during pregnancy, it is possible to prevent vertical transmission and fetal morbidity and mortality. Therefore, the study aims to analyze the epidemiology of confirmed cases of congenital syphilis in Baixada Maranhense from 2018 to 2022. **METHODS:** This is a cross-sectional, quantitative, descriptive, epidemiological study, with data collected from the Notifiable Diseases Information System (SINAN) - from the Department of Information Technology of the Unified Health System (DATASUS). The period evaluated was from 2018 to 2022. The variables used were: age group at diagnosis, race, sex, age group of the mother at diagnosis, mother's education, prenatal care performed and treatment of the partner. **RESULTS:** During the studied period, n=75 cases of congenital syphilis were reported in Baixada Maranhense, while the year of 2022 has the highest number of notifications during the period (36%). Regarding affected children, there was a predominance of notifications in the age group of the first 6 days of life (82.6%) and in the brown race (77.3%), with no disparity between the sexes. Regarding maternal data, there was a prevalence of diagnosis in the age group between 20 and 24 years of age (32%) and a level of education of complete high school (25.3%). In addition, 9.3% of mothers did not undergo prenatal care and 52% of partners did not undergo treatment for acquired syphilis. **CONCLUSION:** The data show a significant percentage of notifications in the last year of the survey, with possible underreporting in previous years, as well as the implementation of more effective diagnostic actions. Regarding maternal data, the prevalence of cases is more common in young women and is influenced by the low percentage of treatment of sexual partners, representing an effective risk of transmission of the agent that causes syphilis. This reality highlights the need to develop health strategies so this preventable problem can be overcome, reducing the number of cases of congenital syphilis in Baixada Maranhense.

**104. EPIDEMIOLOGY OF TUBERCULOSIS HOSPITALIZATIONS IN MARANHÃO FROM 2014 TO 2023**

Victor Alberto de Lima Muniz<sup>1</sup>, Larissa Nahilda Rebouças Soares<sup>1</sup>, Anna Victoria de Vasconcelos<sup>1</sup>, João Guilherme Patriota Carneiro<sup>1</sup>, Carlos Alberto Alves Dias Filho<sup>1</sup>, José Carlos Gomes Patriota Neto<sup>2</sup>, Nicole de Souza Galvão<sup>2</sup>.

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**INTRODUCTION:** Tuberculosis is a global disease responsible for numerous deaths worldwide, caused by the bacterium from the *Mycobacterium tuberculosis* group. This pathology is highly contagious and has a high incidence in Brazil, especially in disadvantaged areas, where housing conditions and basic sanitation are serious public health issues. In this context, the present study aims to examine the epidemiology of tuberculosis hospitalizations in Brazil from 2014 to 2023. **METHODS:** This is an epidemiological, ecological study conducted between 2014 and 2023, with data obtained from the Hospital Information System (SIH/SUS extracted from TABNET/DATASUS, without the need for approval by a research ethics committee. The study variables were: year, age group, sex, color/race, hospitalizations, average hospitalization cost, and average length of stay. **RESULTS:** A total of 1,153 tuberculosis hospitalizations were reported in Brazil during the study period, with an increase in the last 4 years. Regarding age group, the highest number of hospitalizations occurred in individuals aged 30 to 39 years (n=247), while the highest average cost per hospitalization was among patients under 1 year of age (n=2,272.74). As for the average length of stay, patients under 1 year of age had the highest average (n=10.7). In terms of sex, males had the highest number of hospitalizations (n=771), the highest average cost per hospitalization (n=801.62), and the longest average length of stay (n=9). In the color/race variable, mixed-race individuals had the highest number of hospitalizations (n=657) and the longest average length of stay (n=9.4), although the highest average hospitalization cost was among white individuals (n=1,315.17). **CONCLUSION:** The data indicate a growing number of tuberculosis hospitalizations in Brazil, with a notable patient hospitalization profile: 30 to 39 years old, mixed-race, and male. Furthermore, higher expenses were observed in male patients, those under 1 year old, and white individuals. Regarding the average length of stay: male patients, those under 1 year old, and mixed-race individuals had the highest averages. In this context, the importance of this hospitalization profile stands out for the development of public health policies aimed at providing better health conditions for the population, especially for the outlined profile.

**105. EPIDEMIOLOGY OF DISABILITIES OF LEPROSY CONTACTS IN MARANHÃO FROM 2018 TO 2022**

Flávia Rafaela Diógenes Ferreira<sup>1</sup>, Fernanda Diógenes Ferreira<sup>1</sup>, José Carlos Gomes Patriota Neto<sup>1</sup>, Tassya Jordana Coqueiro Batalha<sup>1</sup>, João Marcos Cordeiro Ribeiro Filho<sup>1</sup>, Ana Luísa Penha Castro Marques<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Leprosy is an infectious disease caused by *Mycobacterium leprae* and transmitted through close and prolonged contact, presenting with dermatoneurological lesions that can progress to physical disabilities, resulting in social and psychological impairment. Clinical evaluation of leprosy contacts becomes essential to promote early detection of new cases, so that transmission of the bacillus can be interrupted and physical disabilities prevented. The present study aims to verify the epidemiology of disabilities of leprosy contacts examined in Maranhão from 2018 to 2022. **METHODS:** This is a cross-sectional, quantitative, descriptive, epidemiological study, with data collected from the Notifiable Diseases Information System (SINAN) – from the Department of Information Technology of the Unified Health System (DATASUS). The period evaluated was from 2018 to 2022. The variables used were: disability assessment, sex, education, race and age group. **RESULTS:** During the studied period, 46,444 contacts were notified, examined and classified according to the degree of physical disability at diagnosis, with 52.5% characterized as grade zero, 29.1% as grade I and 8.5% as grade II. The year 2018 stood out with the highest number of notifications during the period (27%), with a decrease in the following years and the year 2020 registering the lowest percentage (15%). Regarding contacts with the highest degree of disability (grade II), there was a prevalence of males (75.1%), brown race (68.5%), education level 1st to incomplete 4th grade of elementary school (22.9%) and age group from 30 to 39 years (15.6%). **CONCLUSION:** The data show a significant percentage of contacts examined presenting some degree of disability at the time of diagnosis, in addition to the higher incidence of notifications in male individuals, over 30 years of age, mixed race and with incomplete elementary education. This reality highlights the need for more health actions aimed at the most affected target audience, based on monitoring contacts and recognizing signs and symptoms for early diagnosis so that physical disabilities can be prevented.

**106. THE EPIDEMIOLOGY OF PEDIATRIC HOSPITALIZATIONS DUE TO DIGESTIVE TRACT DISEASES IN MARANHÃO**

Kellen De Jesus Farias Da Luz<sup>1</sup>, Isabela Vitória De Araujo Costa Melo<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Rebeca Thamires Serra Araujo<sup>1</sup>, Emyllie De Fátima Castro Cavalcante<sup>1</sup>, Monica Elinor Alves Gama<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The most common digestive system diseases in childhood include diarrhea, constipation, food allergies, intestinal infections, esophageal reflux, and gastroenteritis. In many cases, the severity of these conditions necessitates the involvement and attention of a multidisciplinary team, often combined with hospitalization. Therefore, the present study aims to understand the pediatric population in the State of Maranhão affected by digestive tract conditions, as these conditions require caregivers to seek urgent medical care. Effective treatments that require hospitalization. **METHODS:** This is an epidemiological, retrospective, quantitative, and descriptive study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospitalizations due to digestive system diseases in Maranhão from January 2020 to March 2024, involving individuals up to 9 years old. The study variables were: number of hospitalizations, age group, sex, and year of care. **RESULTS:** The study revealed a total of 19,402 hospitalization cases during the analyzed period, with 2023 standing out, accounting for 25.5% of the records. The male group led the reported cases with 58.4%, compared to the female group, which represented 41.5% of the records. The age group with the highest number of hospitalizations was children aged 1 to 4 years, totaling 43.4% of hospitalizations compared to other age groups. This disparity points to a higher incidence of digestive system diseases in male children, encompassing a variety of pathologies such as diarrhea, food allergies, gastroesophageal reflux, and gastroenteritis. **CONCLUSION:** The results of this epidemiological study reveal significant numbers regarding digestive system diseases in children under 10 years old in Maranhão between 2020 and 2024. These findings contrast with the advances in treatments, technologies, and recent updates in the field, highlighting the importance of further research to properly understand and address gastrointestinal diseases, aiming to effectively combat these pathologies to ensure the well-being of children in Maranhão.

**107. EPIDEMIOLOGY OF PEDIATRIC HOSPITALIZATIONS DUE TO BURNS IN MARANHÃO**

Rebeca Thamires Serra Araujo<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Jefferson Cordeiro De Melo<sup>1</sup>, Kellen De Jesus Farias Da Luz<sup>1</sup>, Thalita Linda Alves Candeira<sup>1</sup>, Vitória Maria Cavaignac Sousa<sup>1</sup>, Mônica Elinor Alves Gama<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Burns result from the direct or indirect action of a heat source. Access to electrical outlets, chemicals, and hot liquids are frequently cited as common causes of burns in the pediatric population, typically occurring in the domestic environment. This study aims to examine the profile of the pediatric population affected by burns requiring hospitalization in Maranhão. **METHODS:** This is a descriptive epidemiological study based on hospital morbidity and mortality data from the Department of Informatics of the Unified Health System (DATASUS). The sample included children and adolescents up to 19 years old who were hospitalized for burns in Maranhão between March 2019 and March 2024. The variables analyzed included "health macro-regions," "year of service," "age group," "sex," "color/race," "length of stay," "type of service," and "deaths". **RESULTS:** Between 2019 and 2024, 824 cases were recorded from the South (40.8%), North (44.1%), and East (15.2%) macro-regions. The year 2021 had the highest number of hospitalizations (22.1%). In terms of age group, the highest prevalence was in the 1-4 year group (54.1%). Hospitalizations were recorded for 62.3% male and 37.7% female patients. Regarding color/race, 536 patients declared their race, with most identifying as mixed-race (89.0%). Hospitalizations were divided into two types: elective (7.3%) and emergency (92.7%), with emergency cases being more prevalent. The average length of stay was 6 days, with the longest average in 2023 (7.2 days). Between 2019 and 2023, there were 4 deaths, with 50% occurring in the North macro-region. The deaths were equally divided between the 1-4 year age group (50%) and the 15-19 year age group (50%), all involving male patients. The overall mortality rate was 0.49%, with the highest rate in 2023 (1.21%). **CONCLUSION:** The data from this study reveal a concerning panorama of pediatric hospitalizations due to burns in Maranhão, with a high prevalence in children aged 1 to 4 years, predominance in the North macro-region, and an increase in mortality in 2023. Understanding these characteristics is essential for implementing prevention measures and improving care for children and adolescents who are burn victims, ultimately reducing morbidity and mortality rates in this group.

**108. EPIDEMIOLOGY OF PEDIATRIC HOSPITALIZATIONS DUE TO BURNS IN MARANHÃO**

Rebeca Thamires Serra Araujo<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Jeefferson Cordeiro De Melo<sup>1</sup>, Kellen De Jesus Farias Da Luz<sup>1</sup>, Thalita Linda Alves Candeira<sup>1</sup>, Vitória Maria Cavaignac Sousa<sup>1</sup>, Mônica Elinor Alves Gama<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Burns result from the direct or indirect action of a heat source. Access to electrical outlets, chemicals, and hot liquids are frequently cited as common causes of burns in the pediatric population, typically occurring in the domestic environment. This study aims to examine the profile of the pediatric population affected by burns requiring hospitalization in Maranhão. **METHODS:** This is a descriptive epidemiological study based on hospital morbidity and mortality data from the Department of Informatics of the Unified Health System (DATASUS). The sample included children and adolescents up to 19 years old who were hospitalized for burns in Maranhão between March 2019 and March 2024. The variables analyzed included "health macro-regions," "year of service," "age group," "sex," "color/race," "length of stay," "type of service," and "deaths". **RESULTS:** Between 2019 and 2024, 824 cases were recorded from the South (40.8%), North (44.1%), and East (15.2%) macro-regions. The year 2021 had the highest number of hospitalizations (22.1%). In terms of age group, the highest prevalence was in the 1-4 year group (54.1%). Hospitalizations were recorded for 62.3% male and 37.7% female patients. Regarding color/race, 536 patients declared their race, with most identifying as mixed-race (89.0%). Hospitalizations were divided into two types: elective (7.3%) and emergency (92.7%), with emergency cases being more prevalent. The average length of stay was 6 days, with the longest average in 2023 (7.2 days). Between 2019 and 2023, there were 4 deaths, with 50% occurring in the North macro-region. The deaths were equally divided between the 1-4 year age group (50%) and the 15-19 year age group (50%), all involving male patients. The overall mortality rate was 0.49%, with the highest rate in 2023 (1.21%). **CONCLUSION:** The data from this study reveal a concerning panorama of pediatric hospitalizations due to burns in Maranhão, with a high prevalence in children aged 1 to 4 years, predominance in the North macro-region, and an increase in mortality in 2023. Understanding these characteristics is essential for implementing prevention measures and improving care for children and adolescents who are burn victims, ultimately reducing morbidity and mortality rates in this group.

**109. EPIDEMIOLOGY OF HOSPITALIZATIONS FOR WHOOPING COUGH IN MARANHÃO FROM 2014 TO 2024**

Carlos Daniel Lobato da Costa<sup>1</sup>, Luana Coimbra Furtado<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Whooping cough is an acute infectious transmissible disease caused by the *Bordetella pertussis* bacterium, which presents a preference for the respiratory tract. Despite the availability of effective prophylaxis through the pentavalent vaccine, there has been an increase in reported cases of the disease, especially in the Brazilian state of Maranhão. Thus, the objective of this study is to describe the profile of hospitalizations for whooping cough in Maranhão over the last 10 years. **METHODS:** This is a cross-sectional, epidemiological, descriptive study using secondary data obtained from the Sistema de Informações Hospitalares (SIH) of the Departamento de Informação e Informática do Sistema Único de Saúde (DATASUS). Hospitalizations for whooping cough were analyzed by location of hospitalization, according to the variables sex, race/color, age group and medical assistance, during the period from June 2014 to May 2024 in Maranhão. **RESULTS:** During the analyzed time period, a total of 329 hospitalizations were recorded in the state, with a significant number occurring in the state capital (N=176; 53.50%). Regarding the nature of medical assistance, there is a notable prevalence of emergency cases (N=322; 97.87%) over elective cases (N=7; 2.13%). In terms of age group, the highest prevalence was observed in children under 1 year old (N=257; 78.12%), followed by the age groups of 1 to 4 years (N=44; 13.37%) and 5 to 9 years (N=16; 4.86%). In relation to ethnicity, a significant number of hospitalizations lacked information on race/color (N=260; 79.03%), although brown individuals were the most recorded among those that were specified (N=61; 18.54%). Finally, concerning sex, there is a predominance of cases in women (N=168; 51.06%) compared to men (N=161; 48.94%). **CONCLUSION:** Considering the presented data, there is a predominance of hospitalizations among children under 1 year old (which can be explained by the administration of the pentavalent vaccine occurring after the first year of life), brown individuals, and women. The high number of emergency hospitalizations is based on the fact that whooping cough often presents severe respiratory symptoms. Therefore, there is a need to expand measures that reduce the spread of the disease, especially in the first few months of life, and that allow effective identification and management even in the early stages of the disease. Furthermore, the importance of improving data recording in health establishments is evident, aiming to alleviate the observed ethnic underreporting.

**110. EPIDEMIOLOGY OF BURN HOSPITALIZATIONS IN THE STATE OF MARANHÃO FROM 2019 TO 2023**

Ingrid Victória Borges Alberto<sup>1</sup>, Antônio Vitor Bezerra Fernandes<sup>1</sup>, Eliel Corrêa Vale<sup>1</sup>, Igor Talyon Azevedo Lemos<sup>1</sup>, Leonardo de Jesus Cavalcanti Barros<sup>1</sup>, Maria Eduarda Brito Amaral<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Burns are skin injuries that, depending on the depth and intensity with which they penetrate the skin's surface, can be classified as first, second, or third degree. Considering that they represent a significant public health issue, this study aims to outline the epidemiological profile in Maranhão of hospitalized patients who are victims of this trauma, between the years 2019 and 2023.

**METHODS:** This is a quantitative descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of a total of 2,253,743 cases of burn interactions in the state of Maranhão, from which the variables of age, sex, race, and nature of care were collected, covering the period from 2019 to 2023. **RESULTS:** From the analysis of burn hospitalizations in Maranhão, a predominance is observed in the age group of 20 to 29 years (453,988), followed by the age groups of 30 to 39 (335,402) and 40 to 49 years (232,068). Regarding sex and race, there is a higher incidence of cases in women (1,380,821) and mixed-race individuals (1,273,728). Furthermore, data on care indicate that the majority were in urgent situations (1,827,005). **CONCLUSION:** This study demonstrated that the most affected age group by burns consists of young individuals between 20 and 29 years, with a higher incidence in women, which may be associated with domestic accidents, impacting more mixed-race individuals, as they are the majority in the Maranhão population. Additionally, it was noted that a large portion of the hospitalizations occur in urgent situations. Therefore, these findings highlight the importance of prevention to reduce morbidity and mortality caused by burns, as well as the need to strengthen specialized care in the state.

**111. EPIDEMIOLOGY OF SYPHILIS IN PREGNANT WOMEN IN MARANHÃO BETWEEN 2019 AND 2023 IN RELATION TO THE NORTHEAST**

Andressa de Castro Moraes<sup>1</sup>, João Marcos dos Santos Andrade<sup>1</sup>, Natália Aragão Franco Eleutério<sup>1</sup>, Thais Vieira de Morais Sousa<sup>1</sup>, Vitor César de Abreu Praseres<sup>1</sup>, Viviane da Silva de Sousa<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Syphilis is an infectious and contagious systemic disease caused by the bacterium *Treponema pallidum*. In pregnant women, syphilis poses risks not only to the mother but also to the fetus due to the risk of developing congenital syphilis. Proper diagnosis and treatment help reduce the incidence of syphilis. Therefore, this study aims to identify the epidemiological profile of syphilis in pregnant women in Maranhão in relation to the Northeast region.

**METHODS:** This is an analytical and descriptive study conducted from 2019 to 2023, based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The parameters used included the year of diagnosis, age group, education level, and year of treatment initiation for the mother.

**RESULTS:** During the analyzed period, 70.653 cases of syphilis in pregnant women were reported in the Northeast, with the year 2022 showing the highest number of diagnoses (17.031). In Maranhão, 7.096 cases were diagnosed (approximately 10.04%), with 2021 being the year with the most records (1.666). Regarding age, between 2019 and 2023, both the Northeast and Maranhão showed the highest number of cases in pregnant women aged 20 to 39 years, with 52.752 and 5.138 cases, respectively. In terms of education, there was a predominance of cases among pregnant women in the Northeast with incomplete 5th to 8th grade education, with Maranhão accounting for 9.09% of these records. Concerning the years of treatment initiation for syphilis in pregnant women, the year 2021 stands out with the highest number of records (4.761). However, in Maranhão, concerning treatments relative to the number of diagnoses, 2019 was the year with the most treatments (479), recording 1.619 cases (about 8.69% of the Northeast) with treatment initiation for mothers between 2019 and 2023. **CONCLUSION:** Syphilis is an infection that can affect pregnant women and develop in the fetus. In this context, based on the analyzed periods, it is evident that syphilis significantly affects pregnant women aged 20 to 39 years and with incomplete 5th to 8th grade education in Maranhão and the Northeast. Furthermore, the number of treatment initiations for mothers reveals a concerning value lower than the number of diagnoses, highlighting the need to strengthen monitoring during pregnancy. Thus, it is crucial to promote health education, especially for young pregnant women, and to intensify prenatal care to identify cases of syphilis in pregnant women and initiate effective treatment.

**112. EPIDEMIOLOGY OF LIP NEOPLASIA DIAGNOSIS IN MARANHÃO BETWEEN 2014 AND 2023**

Viviane da Silva de Sousa<sup>1</sup>, Andressa de Castro Moraes<sup>1</sup>, João Marcos dos Santos de Andrade<sup>1</sup>, Vicente de Sousa Dias Neto<sup>1</sup>, Vitor César de Abreu Praseres<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>.  
<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Lip cancer is commonly characterized by lesions on the lips that do not heal and exhibit behavior similar to skin tumors. Excessive and unprotected exposure to ultraviolet rays, as well as frequent alcohol and tobacco consumption, are risk factors for this neoplasia. When treated early, this type of cancer has high chances of cure. This study aims to describe the epidemiological profile of lip neoplasia cases diagnosed in Maranhão, in comparison with the Northeast region. **METHODS:** This is a descriptive and analytical study, covering the years 2014 to 2023, based on data provided by the Cancer Information System (SISCAN). The parameters used were year of diagnosis, state of diagnosis, sex, age group, staging, and therapeutic modality. **RESULTS:** During the analyzed period, 1,524 cases of lip neoplasia were identified in the Northeast, with 2019 being the year with the most diagnoses (299). Maranhão is the state with the fewest diagnoses in the region, with 18 cases (approximately 1.18%), with 2022 being the year with the most diagnoses (4). Males are more affected in the region (61.4%) and in the state (66.6%). The most affected age group in both analyses is 80 years and older, with 240 diagnoses in the Northeast and 5 in Maranhão. Regarding staging, among the classified cases, stage 3 had the highest number (n=156) in the Northeast. However, in the notifications, most were either ignored or not applicable, with 499 and 626, respectively. Stage 4 was the most frequent in Maranhão, with 5 cases. The most commonly used therapeutic modality in the region was surgery, with 626 treatments, while in the state, it was radiotherapy, with 9 treatments. **CONCLUSION:** Lip neoplasia predominantly affects older men, as lip protection with dermocosmetics is not common in this demographic. Additionally, males represent the majority of alcohol and tobacco consumers, factors that, when combined with prolonged exposure, lead to the development of cancer. The prevalent use of radiotherapy in Maranhão may be associated with advanced-stage diagnosis, due to the need to combine therapeutic modalities. Therefore, it is important to reinforce preventive measures in the group most affected by this neoplasia and to ensure early diagnosis.

**113. EPIDEMIOLOGY AND COST OF HOSPITALIZATION DUE TO EYE TRAUMA IN MARANHÃO FROM 2019 TO 2023**

Lúcia Gomes Nascimento Campos<sup>1</sup>, Romero Henrique Carvalho Bertrand Filho<sup>1</sup>, Pedro Arthur Índio Maranhense Boueres<sup>2</sup>, Saul Dominici Rocha Santos<sup>2</sup>, Adriana Leite Xavier<sup>1</sup>.  
<sup>1</sup> University Center of Maranhão; <sup>2</sup> Federal University of Maranhão

**INTRODUCTION:** Eye trauma (ET) is the most frequent cause of non-congenital unilateral blindness in children and adults. Complications of this type are often encountered in emergency departments. The cost of hospitalization is a constant concern, making it necessary to understand the expenses resulting from eye trauma cases that require patient admission. This study will analyze the cost of hospitalized patients due to eye trauma in Maranhão from 2019 to 2023. **METHODS:** A descriptive, retrospective epidemiological study was conducted using data from the Hospital Information System of SUS (SIH/SUS) through the platform of the Department of Informatics of the Unified Health System (DATASUS). The variables of interest used for analysis were: the number of hospitalizations, Eye/Orbital Trauma ICD 10 (S05), age group, sex, and total hospitalization costs from January 2019 to December 2023. Google Sheets was used for data analysis and tabulation. **RESULTS:** A total of 125 hospitalizations for ET were recorded from 2019 to 2023, with an average of 25 cases per year. The highest incidence was in the 35-39 age group, with 13 cases (10.4%), and males were predominant, accounting for 91 cases (72.8%) of the total. The total cost was R\$109,670.50, with an average hospitalization cost of R\$877.36. The highest total cost by age group was in the 55-59 age group, with expenses totaling R\$13,247.60 (12.079%) among individuals of that age. However, the age group with the highest average cost per hospitalization was 80 years or older, with R\$3,339.13, followed by the 55-59 age group with an average cost of R\$2,649.52. Regarding sex, the total cost for males was R\$83,354.09 (76.004%) and for females, it was R\$26,316.41 (23.996%), with average hospitalization costs of R\$915.98 and R\$774.01, respectively. **CONCLUSION:** Based on the analyzed data, it is inferred that, in the state of Maranhão, ET cases primarily affect men in the 35-39 age group, indicating the need for preventive and educational measures targeted at this group. Although the highest number of cases occurs in individuals aged 35-39, the highest costs are related to patients aged 55-59 and those aged 80 and over, highlighting the need for greater healthcare attention to these age groups. Therefore, further studies and analyses should be conducted to inform public health actions in the state.

**114. EPIDEMIOLOGICAL ANALYSIS OF HOSPITALIZATIONS FOR EPILEPSY IN MARANHÃO FROM 2019 TO 2023**

Ana Carolina Leal Melo<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, João Victor Cunha Silva<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, Wanderson José Cutrim Ferreira<sup>1</sup>, Pedro Durante Junqueira<sup>1</sup>, Santiago Servin<sup>1</sup>.

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**INTRODUCTION:** Epilepsy is a neurological disorder that causes disordered electrical discharges in the brain, which compromises synapses and causes seizures. It can present itself clinically in different ways, depending on the affected area of the brain. This pathology causes neurological, cognitive, socioeconomic and behavioral impacts on the individual's life. Therefore, this study aims to outline the epidemiological profile of patients hospitalized for epilepsy from 2019 to 2023 in Maranhão. **METHODS:** This is a descriptive epidemiological study, with a quantitative approach, carried out through data collection at the Department of Information and Informatics of the Unified Health System (DATASUS), in patients aged less than 1 year to patients over 80 years old in the period from 2019 to 2023, in Maranhão. To treat secondary data, approval from the Ethics Committee was not necessary. The variables used were: number of hospitalizations, age group, year of care, sex, color/race, type of care, municipality and health region. **RESULTS:** In Maranhão, from 2019 to 2023, 6,724 hospitalizations for epilepsy were reported. Regarding the year of hospitalization, there was a numerical balance of cases, but with a predominance in 2022, with 23.21% of hospitalizations. Regarding the prevalence by municipality, it was observed that São Luís had the highest occurrence, with 23.85% of cases. Furthermore, the age group from 1 to 4 years was the most prevalent, with approximately 16.83%, followed by the age group from 20 to 29 years, with 12.77%. Of the total number of cases, 55.85% were male. Regarding race, self-declared brown patients prevailed, accounting for 60.88% of cases. In addition, 92.25% of hospitalizations were of an emergency nature. Finally, the average length of hospitalization per year was 5.3. **CONCLUSION:** In summary, the predominance of emergency care indicates that epilepsy often results in severe episodes that require immediate intervention. In addition, the average hospital stay of 5.3 days per year highlights the impact that hospitalizations have on the health system, indicating the need to improve access to and the quality of outpatient and preventive care in order to reduce hospitalizations. Thus, the importance of specific public health strategies for the control and management of epilepsy in Maranhão is highlighted, especially in urban areas, in younger age groups, in males and for individuals of mixed race.

**115. EPIDEMIOLOGICAL ANALYSIS OF MENINGITIS CASES BETWEEN 2018 AND 2023 IN MARANHÃO**

Nívea Carolina Tavares Araújo<sup>1</sup>, Brenda Fernandes Campinho Braga<sup>1</sup>, Camila Kelly Viana Silva<sup>1</sup>, Isadora Márcia Pereira Nery<sup>1</sup>, Vitória Dálet Souza Rodrigues<sup>1</sup>, Abraão Ferreira de Sousa Neto Kós<sup>1</sup>.

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**INTRODUCTION:** Meningitis is an inflammatory process that involves the meninges and cerebrospinal fluid (CSF), due to an immune response to infectious and non-infectious aggressors, such as viruses and chemical substances. This inflammation is considered a public health issue due to its high prevalence and elevated morbidity and mortality rates, as it can cause irreversible sequelae and death. **METHODS:** The present study aims to outline the cases of meningitis from 2018 to 2023. This is a descriptive, retrospective, and quantitative epidemiological study of meningitis cases in the state of Maranhão. The data was obtained from the Notifiable Diseases Information System (Sinan/Tabnet) between the years 2018 and 2023. The following variables were used: etiology, gender, age group, education level, confirmation criteria, and disease progression. **RESULTS:** There were 651 cases of meningitis were reported in Maranhão between 2018 and 2023, with a decrease in confirmed cases from 2019 to 2020, and an increase from 2020 to 2023. The highest number occurred in 2023 (n=151; 23.1%). The city with the most notifications was São Luís (n=487; 74.8%). Males were more affected (n=359; 55.1%) than females (n=292; 44.8%). The main age groups affected were children under 1 year old (n=165; 25.3%) and adults between 20 and 39 years old (n=129; 19.8%). Regarding education level, in most cases, this variable was not applicable (n=286; 46.9%). As for the main reported etiologies, there was a predominance of unspecified meningitis (n=306; 47.0%) and viral meningitis (n=114; 17.5%). Among the criteria used to confirm the diagnosis, most were confirmed by cerebrospinal fluid (CSF) cytochemical analysis (n=279; 42.8%) and clinical examination (n=197; 30.2%). Most cases progressed to discharge (n=402; 61.7%) or death due to meningitis (n=186; 28.5%). **CONCLUSION:** According to the overview of meningitis cases in the state of Maranhão between 2018 and 2023, the study provides relevant data on the incidence and characteristics of the disease. Although the number of cases decreased between 2019 and 2020, the rate of cases increased from 2020 to 2023. Children under 1 year of age and adults aged 20 to 39 were the most affected age groups, denoting the vulnerability of distinct age groups. Although a significant proportion of cases have recovered, the mortality rate remains high, indicating that meningitis still requires control and prevention measures.

**116. EPIDEMIOLOGICAL ANALYSIS OF NON-MELANOMA SKIN CANCER IN NORTHEAST BRAZIL**

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**INTRODUCTION:** Skin cancer is one of the leading causes of death worldwide, and its main risk factor is excessive exposure to solar radiation. Furthermore, non-melanocytic skin cancer is the most common type in Brazil, especially in the Northeast region, with a higher incidence of basal cell carcinoma, followed by squamous cell carcinoma. The objective of this study was to analyze the epidemiological profile of non-melanoma skin cancer in the Northeast region of Brazil. **METHODS:** This is an integrative literature review on the epidemiology of non-melanoma skin cancer in the northeast of Brazil. Eight scientific articles from the last 10 years were selected using the Scielo database (Online Scientific Electronic Library) in English and Portuguese, as well as secondary data from the Ministry of Health – Datasus, within the period from 2017 to 2019, using the descriptors "skin cancer," "northeast," and "prevalence". **RESULTS:** Non-melanoma skin cancer (NMSC) is the most common and prevalent neoplasm throughout Brazil, accounting for 33% of all malignant tumor diagnoses in the states of Ceará, Bahia, and Pernambuco. The majority of cases are of the basal cell carcinoma type, with an incidence of about 70%. Regarding age group, individuals aged 70 years or older represent the majority of NMSC diagnoses, with a significant increase in this age group from 2017 to 2018, amounting to 859%, and from 2018 to 2019, a 108% increase. As for gender, there were some variations over the years; from 2017 to 2018, neoplasms increased by 79% in men and 88% in women, while in 2019, women represented the highest number of cases, with 74% of them diagnosed. **CONCLUSION:** The statistical data from 2017 to 2019 demonstrate the high incidence of non-melanoma skin cancer in the northeastern region, highlighting the need for preventive measures to raise awareness about proper sun protection. In this way, it is crucial to promote health services and preventive actions among Brazilian states to effectively prevent skin cancer in the Northeast region.

**117. EPIDEMIOLOGICAL ANALYSIS OF SPONTANEOUS ABORTIONS BETWEEN 2020 AND 2023 IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Spontaneous abortion is the most common gestational complication, occurring in 15-20% of pregnancies, especially in the first 13 weeks. The causes are multifactorial, including genetic (chromosomal abnormalities) and non-genetic (infectious agents, socioeconomic and environmental conditions) factors. This event brings significant psycho-emotional impacts, with costs to public health. Therefore, the objective of this study is to analyze cases of spontaneous abortion in the state of Maranhão, identifying epidemiological trends and demographic characteristics of the reported cases. **METHODS:** This is a descriptive epidemiological study, with a quantitative approach, based on data made available by the Department of Information Technology of the Unified Health System (DATASUS) on spontaneous abortions between 2020 and 2023 in the State of Maranhão. Since these are secondary data, approval by the Ethics Committee was not required. The variables used were: number of abortions, year of care, health macro-region, age group, color/race, type of care, average number of days spent in care. **RESULTS:** In the state of Maranhão, from 2020 to 2023, 12,498 cases of spontaneous abortions were reported. Regarding the occurrence of cases per year, the prevalence was observed in 2021 and 2022, with approximately 38.82% and 42.42% of cases, respectively. Regarding the occurrence by macro-region, the North showed predominance with 6,534 cases. Furthermore, the age group from 20 to 29 years was the most prevalent, with approximately 50.01%, followed by the age group from 30 to 39 years, with 32.75% of cases. Regarding race, women who declared themselves to be brown prevailed, accounting for 63.46% of cases. In this context, 11,858 emergency care services were provided. Furthermore, the total number of days of hospitalization was 22,423, with 2021 having more than 40 such days and the longest average hospital stay (1.8). Finally, most expenses occurred in 2021, with 38.69% of the R\$2,650,469.56 spent. **CONCLUSION:** There was a higher incidence of abortion cases in 2021, with a predominance in the northern macro-region of the state. Regarding the profile of women who suffered spontaneous abortion, the highest recurrence was among women aged 20 to 29 and self-declared brown skin color. In addition, there was a higher prevalence of emergency care. Consequently, a large number of hospitalizations due to spontaneous abortions can be observed, a fact that further burdens the Unified Health System.



**118. EPIDEMIOLOGICAL PROFILE OF GESTATIONAL TOXOPLASMOSES IN BRAZIL FROM 2019 TO 2023**

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**INTRODUCTION:** Toxoplasmosis is an infection caused by the protozoan *Toxoplasma gondii*, contracted by consuming contaminated food and water and by exposure to environmental sources of infection such contact with surfaces contaminated with cat feces. Acute infection during pregnancy may result in vertical transmission to the fetus, with an increased risk of contamination in later stages of gestation; however, the severity of the disease tends to diminish with later infections. Congenital toxoplasmosis can affect multiple organ systems, often leading to neurological and visual impairments, and in severe cases, it may result in fetal death. This study aims to analyze the epidemiological profile of gestational toxoplasmosis in Brazil. **METHODS:** This descriptive, cross-sectional study investigates the epidemiological profile of gestational toxoplasmosis in Brazil. It employs secondary data from the Notifiable Diseases Information System (SINAN), sourced from the Health Informatics Department of the Unified Health System (DATASUS). The analysis covers a five-year period from 2019 to 2023 and examines variables such as education level, race, gestational age, and geographical regions within Brazil. **RESULTS:** A total of 55,716 cases of gestational toxoplasmosis were reported in Brazil during this period. The lowest number of cases occurred in 2019 (n=8,436; 15.14%), while the highest was recorded in 2023 (n=14,614; 26.23%). The Southeast (n=17,351; 31.14%) and Northeast regions (n=16,659; 29.90%) exhibited the highest notification rates. The majority of diagnosed pregnant women identified as mixed race (n=27,757; 49.82%), had completed high school (n=14,942; 26.82%), and were in their second trimester of pregnancy (n=21,356; 38.33%). In contrast to national trends, the Southern region reported that white women constituted the most affected group, with 7,990 cases (67.05% of regional cases), and most infections occurred during the first trimester, totaling 4,243 cases (35.61% of regional cases). Additionally, 32,320 cases of congenital toxoplasmosis were reported nationwide during the same period. **CONCLUSION:** The Southeast and Northeast regions reported the highest prevalence of gestational toxoplasmosis, while a distinct patient profile was observed in the Southern region. The early detection of primary infections, particularly in the South, indicates the effectiveness of screening programs in that area. These findings underscore the vital importance of early diagnosis in preventing congenital complications in newborns and point to the need for enhanced control measures in areas with elevated incidence rates.

**119. EPIDEMIOLOGICAL PROFILE OF MATERNAL DEATHS IN THE STATE OF MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Maternal deaths represent a critical public health issue that affects families and communities throughout the state of Maranhão. Despite advances in medicine and health policies, many women still present significant risks during pregnancy, childbirth and the puerperal period, especially in the regions furthest from the state's major centers, where they have limited access to medical care. In addition, maternal deaths reflect the social and economic inequality that exists in the state. This article aims to analyze the main etiologies that lead to maternal deaths, seeking to identify the most common and determining factors for these fatalities. By understanding the predominant causes, we aim to contribute to the development of prevention and intervention strategies, with a view to significantly reducing maternal deaths and promoting safe and healthy motherhood for all women. **METHODS:** This is a retrospective epidemiological study with a quantitative approach using data collected from the DATASUS platform on maternal deaths reported in the state of Maranhão between 2012 and 2022. The gender, macro-region of occurrence, period of incidence and etiology of maternal deaths were analyzed respectively. The inclusion criterion was deaths of women living in Maranhão, of childbearing age, regardless of marital status. Thus, women from other states and who were not of reproductive age were excluded. **RESULTS:** During the study period, the prevalence in the female gender was analyzed, with 117 maternal deaths recorded in the state of Maranhão, in which it had a higher prevalence in the northern macro-region with 78% (n: 91), followed by the south with 20% (n:23) and finally the eastern macro-region with 2% (n: 3). The highest incidence of maternal death was observed in 2021 (n:14) and the lowest in 2014 and 2022 (n:8). These deaths were mainly due to eclampsia, postpartum hemorrhage, infectious diseases and pre-existing maternal diseases, such as endocrine and circulatory problems, among others. **CONCLUSION:** During the 10-year period between 2012-2022, there were maternal deaths, both pregnant and puerperal, caused by eclampsia, as well as diseases related to the cardiac and respiratory systems, obstetric embolisms and ectopic pregnancy.

**120. EPIDEMIOLOGY OF GESTATIONAL TOXOPLASMOSIS IN MARANHÃO: A DESCRIPTIVE REVIEW**Handrya Karla Martins Gomes<sup>1</sup>, Vinicius Ryan Araujo de Oliveira<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Toxoplasmosis is a zoonosis, generally asymptomatic, caused by the obligate intracellular protozoan *Toxoplasma gondii*. This parasite infects various intermediate hosts, including humans, with felines serving as its definitive hosts. Transmission occurs through the consumption of raw or undercooked meat containing oocysts after contamination by feline feces. Contagion can also occur through organ transplantation, blood transfusion, and transplacental transmission. In terms of prophylaxis, simple hygiene measures should be adopted to reduce transmission: proper washing of fruits and vegetables and taking precautions when handling cats. The infection poses risks of serious complications to the fetus, such as delayed neuropsychomotor development, strabismus, visual deficits, and hearing loss. The study aimed to discuss the epidemiological aspects of toxoplasmosis in Maranhão between 2019 and 2023. **METHODS:** This was a descriptive, cross-sectional review conducted using data from the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS). Reference searches were conducted in virtual libraries and databases such as Scientific Electronic Library Online (SciELO), PubMed, and Google Scholar, including full articles and reviews in Portuguese and English related to the topic and descriptors. The variables analyzed included ethnicity, prenatal care, age, and socioeconomic status. Descriptive statistics were used in the data analysis. **RESULTS:** Of the number of cases reported in Maranhão (n=1,663), the highest prevalence was in 2023 (n=439; 26.4%) and the lowest in 2019 (n=243; 14.6%). Of the total diagnosed, (n=1,028; 61%) were confirmed, (n=299; 18%) were inconclusive, and (n=336; 20%) were ignored or discarded. Among the confirmed cases, (n=781; 76%) were brown individuals, (n=728; 71%) were pregnant women aged 20 to 39, and (n=281; 27%) were pregnant women aged 10 to 19, with (n=518; 50%) being diagnosed in the second trimester of pregnancy. **CONCLUSION:** Gestational toxoplasmosis can be effectively mitigated through the implementation of prophylactic measures, highlighting the importance of prenatal care in each trimester. In this regard, the urgency of promoting education and basic sanitation is emphasized, especially in socioeconomically disadvantaged areas where its incidence is higher. The adoption of adequate prophylaxis can reduce cases of congenital infection and, consequently, the occurrence of sequelae in newborns.

**121. EPIDEMIOLOGY OF HANSEN'S DISEASE IN MARANHÃO, BETWEEN 2019 AND 2023: DESCRIPTIVE REVIEW**Vinicius Ryan Araujo de Oliveira<sup>1</sup>, Handrya Karla Martins Gomes<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Leprosy is a chronic contagious disease caused by the bacterium *Mycobacterium leprae*. It is an obligate intracellular parasite with an affinity for skin cells and peripheral nerves, with common respiratory transmission. However, vaginal secretions, semen, and sweat can also expel bacilli. The diagnosis is based on clinical, epidemiological and histopathological factors, with suspicious lesions examined during the physical assessment. In Hansen's disease, treatment is conducted with antibiotic therapy. The study aimed to describe the epidemiological aspects of this bacterial infection in Maranhão between the years 2019 and 2023. **METHODS:** This was a descriptive review study of a cross-sectional nature, conducted through data collection from the Notification of Disease Information System (SINAN) portal, made available by the Department of Informatics of the Unified Health System (DATASUS). Reference searches were conducted in virtual libraries and databases of the Scientific Electronic Library Online (SciELO) and Google Scholar. **RESULTS:** The diagnosis and notification of Hansen's disease in Maranhão reached (n = 13,259) cases, with the highest prevalence in 2019 (n = 4,208; 31.7%) and the lowest in 2023, with (n = 809; 6.1%). Of those affected, (n = 8,154; 61.5%) were male; (n = 2,374; 17.9%) were in the age group of 20 to 39 years. Considering only confirmed cases, (n = 9,073; 68.4%) were of brown individuals; (n = 8,747; 66%) had not completed basic education or were illiterate; (n = 7,445; 56%) had dimorphic classification, (n = 2,594; 19.5%) lepromatous, (n = 1,133; 5%) tuberculoid, and (n = 1,779; 13.4%) indeterminate. Those who completed treatment and were cured totaled (n = 7,761; 58.5%). Cases of treatment abandonment (n = 810; 6.1%) and progression to death (n = 280; 2.1%) were also reported. **CONCLUSION:** Even with a significant decrease in the number of cases during the analyzed period, the prevalence among brown individuals with dimorphic clinical presentations, and the high rate of cure when treatment is followed, leprosy is still considered a serious public health issue associated with social inequality, low educational levels, and unfavorable socioeconomic conditions. The pandemic scenario, with social isolation, underreporting, and low public awareness of its causes and means of transmission, has hindered diagnosis and treatment adherence.

**122. EPIDEMIOLOGY OF MALIGNANT HYPERTHERMIA IN DIFFERENT POPULATIONS: A SYSTEMATIC REVIEW**

Lucas Gabriel Feitosa da Exaltação<sup>1</sup>, Ludmyla Assunção de Paula<sup>1</sup>, Felipe Alencar Fialho Bringel<sup>1</sup>, Pedro Igor de Sousa Rios<sup>1</sup>, Rodrigo Almeida da Paz<sup>1</sup>, Cyro Franklin Conceição Vieira<sup>2</sup>.

<sup>1</sup> Federal University of Maranhão; <sup>2</sup> São Domingos Hospital

**INTRODUCTION:** Malignant hyperthermia (MH) is a rare pharmacogenetic disorder of skeletal muscle that results in a severe hypermetabolic response when susceptible individuals are exposed to halogenated volatile anesthetics or succinylcholine. The most common symptoms include muscle rigidity, tachycardia, tachypnea, increased expired CO<sub>2</sub>, metabolic acidosis, and dangerously high body temperatures. Immediate treatment includes rapid body cooling and the administration of dantrolene, which helps relax muscles and control fever. Supportive measures such as mechanical ventilation and intravenous fluids are also essential. The objective of this study is to determine the incidence and epidemiology related to cases of malignant hyperthermia in different populations. **METHODS:** This study consists of a systematic review using the PRISMA method from 2014 to 2024 through the databases BVS, PubMed, and Scielo. **RESULTS:** Using inclusion and exclusion criteria, seven articles were selected for this review. **CONCLUSION:** The systematic review of the available literature revealed that the prevalence of malignant hyperthermia (MH) ranges from 1:16,000 to 1:100,000 hospitalized patients. Globally, a higher frequency of MH cases was observed among males, with double the incidence compared to females. Age group analysis indicated a higher occurrence among younger individuals, with cases being rare among the elderly. In terms of race, the prevalence of MH was lower among Hispanics than among non-Hispanic whites. Identified risk factors for the development of MH include genetic susceptibility, especially pathogenic variants in the RYR1, CACNA1S, and STAC3 genes, cesarean section procedures, and patients with more prominent muscular build, the latter having a 13.6-fold increase in the likelihood of death from MH.

**123. EPIDEMIOLOGY OF SYPHILIS CASES IN PREGNANT WOMEN IN BRAZIL AND MARANHÃO FROM 2019 TO 2023**

Isabela Linhares Costa Solidade<sup>1</sup>, Terezinha Machado Dos Santos<sup>1</sup>, Lucian de Araújo Miranda<sup>1</sup>, Shara Byanca Andrade Cavalcante Da Silva<sup>1</sup>, Ana Paula Pereira Da Costa<sup>1</sup>, Aristela Vieira Lucena<sup>1</sup>.

<sup>1</sup> Faculty of Medicine of Açailândia - IDOMED

**INTRODUCTION:** Syphilis is an infection transmitted sexually, placentally and through blood transfusions, and has the bacterium *Treponema pallidum* as its etiological agent. The disease has clinical forms that evolve over time: primary, secondary, latent and tertiary. In pregnancy, when left untreated, syphilis can lead to unfavorable perinatal outcomes, such as premature birth, fetal death and sequelae that will negatively affect the baby's life. The aim of this study is to comparatively analyze the epidemiological situation of syphilis in pregnant women in Brazil and Maranhão. **METHODS:** This is an epidemiological, descriptive and retrospective study carried out by collecting secondary data on the TABNET platform of the SUS Information Technology Department (DATASUS). The study covered five years (2019-2023) and the variables observed and compared at national and state level were the number of cases, clinical classification of syphilis, age group and color. **RESULTS:** In the country, 324.683 pregnant women were registered with syphilis during this period, and Maranhão accounted for 2,04% of this number, with 6.639 cases. The most prevalent clinical forms nationwide were latent (40,48%) and primary (25,24%). Maranhão, in turn, also had the latent (26,10%) and primary (43,74%) forms as the most registered at the time of diagnosis, with the difference being that the state made more diagnoses in the primary phase, that is, earlier. In terms of age, the age group with the highest number of cases was 20 to 39 years old, both in Brazil (75,43%) and in Maranhão (76,80%). Brown women had the highest number of notifications in the country (52,31%) and in the state (82,13%). **CONCLUSION:** The results show that, in terms of clinical form, age and color, the state of Maranhão is following a similar trend to the rest of the country. The percentage of cases should in no way be interpreted as small, given that syphilis during pregnancy is a problem with a major social impact that demands special attention from maternal and child health services.

**124. SCHISTOSOMIASIS MANSONIS: EPIDEMIOLOGICAL PROFILE OF BAIXADA MARANHENSE BETWEEN 2018 AND 2023**

Emilly Reis de Albuquerque Moraes<sup>1</sup>, Layna Ravenna Batista de Lima<sup>1</sup>, Maria Júlia de Sena Lopes<sup>1</sup>, Klitia de Jesus Saraiva Garrido<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Schistosomiasis mansoni (MS) is a parasitic disease caused by trematodes of the genus *Schistosoma*, which have as an intermediate host the freshwater snail of the genus *Biomphalaria*. In its chronic phase, it causes hepatosplenomegaly, liver fibrosis, esophageal varices and ascites, in addition to reducing the ability to work and, in some cases, causing death. In children, it can cause anemia and malnutrition, affecting growth, cognitive capacity and, consequently, learning. Considering its impacts on quality of life, the objective of this study was to outline and analyze the epidemiological profile of schistosomiasis mansoni in the Baixada region of the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, in which secondary data provided by the Notifiable Diseases Information System (SINAN) database were used, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS), referring to the period from 2018 to 2023. Regarding the variables, race, sex, age group and the number of cured individuals were analyzed. **RESULTS:** During the years studied, 56 cases of schistosomiasis mansoni were registered in the Maranhão lowlands. Of these, 62.5% (n = 35) were brown people. 62.5% (n = 35) were male; 37.5% (n = 21) were in the 40-59 age group, followed by 32.1% (n = 18) between 20-39 years old. A total of 45 cured patients were registered. **CONCLUSION:** Schistosomiasis is a neglected disease, closely linked to poor socioeconomic conditions in rural areas. It remains endemic in Baixada Maranhense due to the high concentration of the parasite in flooded regions. According to statistics, the productive age corresponds to the age group with the highest incidence of contamination, which makes MS assume characteristics of an occupational disease and brings to light the need to reflect on its epidemiological framework and the impacts on the social and economic development of the State.

**125. NUTRITIONAL STATUS AND SOCIODEMOGRAPHIC PROFILE OF PATIENTS WITH HEART FAILURE**

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**INTRODUCTION:** Heart failure with reduced ejection fraction (HFrEF) is the heart's inability to adequately pump blood, compromising patients' habits and quality of life, and potentially leading to changes in body composition. Thus, this study aims to describe the nutritional status and sociodemographic profile of patients with HFrEF. **METHODS:** This is a cross-sectional study conducted with outpatients diagnosed with HFrEF from 2022 to 2024. To assess the anthropometric profile, body weight, height, and Body Mass Index (BMI) were evaluated. For BMI, a score up to 18.50kg/m<sup>2</sup> represents underweight, between 18.60kg/m<sup>2</sup> and 24.99kg/m<sup>2</sup> was considered normal weight, 25kg/m<sup>2</sup> to 29.99kg/m<sup>2</sup> overweight, 30kg/m<sup>2</sup> to 34.99kg/m<sup>2</sup> obesity grade I, 35kg/m<sup>2</sup> to 39.99kg/m<sup>2</sup> obesity grade II, and above 40kg/m<sup>2</sup> obesity grade III. The sociodemographic variables used were: gender, ethnicity, age, and marital status. Additionally, descriptive analysis was performed using RStudio software. The study was approved by the Research Ethics Committee (CAAE: 25756919.9.2004.5086). **RESULTS:** A total of 129 patients were included in the study, with a mean age of 56.8 ± 11.2 years. The majority were male (69.5%), mixed race (62.3%), and married (50.5%). The average height was 1.62m, with no significant difference in height when the sample was categorized by gender. Regarding weight, the overall mean body mass was 68.4kg, with an average of 68.7kg in men (M) and 68.2kg in women (W). The BMI analysis showed a mean of 25.33kg/m<sup>2</sup> (M: 25.6kg/m<sup>2</sup>, W: 25.3kg/m<sup>2</sup>), with 4.6% (n=6) classified as underweight, 40.3% (n=52) within normal weight, and 36.4% (n=47) overweight. Regarding obesity, 13.9% (n=18) of the sample was classified as obesity grade I, 3.1% (n=4) grade II, and 1.5% (n=2) grade III. **CONCLUSION:** It can be concluded that there is a higher prevalence of HFrEF in male patients of mixed race. This suggests a greater susceptibility of this group to developing the disease. Another important finding is the significant number of patients with a BMI above 30, indicating that overweight and obesity are significant risk factors for this condition. Therefore, patients fitting this profile require closer monitoring when heart failure is suspected.

**126. DEEP BRAIN STIMULATION IN NEUROPATHIC FACIAL PAIN: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Deep brain stimulation (DBS) is a neurosurgical therapy used to treat neurological disorders such as Parkinson's disease, dystonia, and essential tremor. It involves the application of electrodes in the brain connected to a pulse generator implanted under the skin, sending electrical impulses that generate deep neurostimulation, alleviating motor and pain symptoms. Recently, studies have been conducted using DBS in the treatment of some neuralgias, including neuropathic facial pain (NFP). This study aims to investigate the efficacy of DBS for the treatment of NFP. **METHODS:** A systematic literature review was conducted in the PubMed and Embase databases using the descriptors "Deep brain stimulation," "Facial Pain," "DBS," and "Neuropathic." Boolean operators AND and OR were used. There was no time limit, and case reports, review articles, duplicates, conference abstracts, and studies not in English were excluded. Out of 107 articles found, 9 original studies were included for analysis. **RESULTS:** Among the 9 studies analyzed, 7 were case series and 2 were single-center retrospective studies. The total sample size was 243 people who underwent deep brain stimulation. The average age of this population was 54.2 years, and the mean follow-up period was 112 ( $\pm$  92) weeks. All studies analyzed used pain perception scales, such as the visual analog scale (VAS) and/or the numerical rating scale (NRS), to assess the effects of DBS on NFP treatment. Tests such as the Mini-Mental State Examination (MMSE) were used to assess pre- and postoperative quality of life. All studies indicated the electrode frequency range (30 to 130 Hz), and 6 indicated an optimal voltage between 3 and 10 V, depending on the patient's subjective perception of NFP. The results of the studies varied, but most reported a reduction in pain and/or an improvement in quality of life, with 5 studies reporting a 50% reduction in pain in more than 60% of patients. **CONCLUSION:** The use of DBS suggests a reduction in NFP and clinical improvement in patients. However, further studies should be conducted to consolidate the feasibility of this intervention, particularly randomized clinical trials and more prospective or retrospective studies with larger sample sizes, evaluating adverse effects, intraoperative complications, and long-term efficacy through control groups.

**127. STUDY OF PRENATAL CARE IN THE MUNICIPALITY OF PINHEIRO-MA IN THE FACE OF COVID-19**

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**INTRODUCTION:** The general objective of this study was to investigate how the COVID-19 pandemic affected the adherence to prenatal care among parturients in the city of Pinheiro, Maranhão, by comparing the rates of prenatal care before and during the pandemic in the city of Pinheiro, in the state of Maranhão. **METHODS:** To achieve the proposed objective, the methodology of descriptive research and ecological, quantitative study was adopted, with analysis of data recorded in SINASC and made available on the website of the SUS Information Technology Department (DATASUS). Thus, the years 2017 to 2022, the three years prior to the coronavirus pandemic (2017 to 2019) and the three years in which the pandemic was established (2020 to 2022) were analyzed. **RESULTS:** The profile of parturients, pregnancies and deliveries remained the same throughout these years. However, there were significant changes in the characteristics of prenatal care during the COVID-19 pandemic and in the years preceding it, so that, from 2017 to 2019, the number of prenatal consultations was four to six, and in relation to the quantitative adequacy of prenatal care, the category inadequate predominated. On the other hand, from 2020 to 2022, the number of prenatal consultations was seven or more, and in relation to the quantitative adequacy of prenatal care, the category more than adequate predominated. **CONCLUSION:** The results show that the impacts on prenatal care in the city of Pinheiro-MA, during the COVID-19 pandemic, were positive, as the pandemic scenario did not negatively affect the search for prenatal care, despite the restrictions, thus demonstrating the adequacy of services to the needs of the health crisis that has taken hold, capable of guaranteeing adequate monitoring for pregnant women. It is expected that, with this analysis, the results can serve to guide public policies for the area, always aiming at the best quality of life and care for pregnant women and women in labor, especially in times of crisis in the health system.

**128. EPIDEMIOLOGICAL STUDY OF LEPROSY FROM 2014 TO 2023: COMPARATIVE BETWEEN MARANHÃO AND BRAZIL**

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**INTRODUCTION:** Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*, an acid-fast bacillus that affects the skin and peripheral nerves, capable of causing neural lesions. Although curable, it still remains endemic in several regions of the world. In Brazil, it is a public health problem due to its magnitude and high disabling power, affecting mainly vulnerable and marginalized middle and low-income populations. The present study sought to analyze the epidemiological indicators of leprosy in Maranhão, comparing them with the national percentages, over a period of 9 years, thus aiming to provide subsidies for the implementation of improvements that address the theme of leprosy. **METHODS:** This is a descriptive study based on secondary data from the Notifiable Diseases Information System (SINAN), made available by the platform of the Department of Informatics of the Unified Health System (DATASUS). The categories sex, race, and age were selected, and then the data were collected and tabulated in an Excel spreadsheet for descriptive statistical analysis. **RESULTS:** In Maranhão, males had the majority of diagnosed cases of leprosy (59.4%), a proportion slightly higher than that of men in the country (57.0%). As for race, browns were more affected in both: 67.9% in Maranhão compared to 59.0% at the national level. Blacks had a higher representation in Maranhão (16.0%), compared to those in Brazil (12.6%). Regarding age, there was a higher prevalence between 30 and 39 years of age in Maranhão, with 17.7%, whereas in Brazil it was found in the 50 to 59 age group, with 19.2%. **CONCLUSION:** It can be inferred that men and individuals of the brown race were more affected by the pathology, both in Maranhão and in Brazil. In the state of Maranhão, blacks had a more expressive proportional involvement. In addition, there was a higher prevalence in the 30 to 39 age group in Maranhão, and in the country, between 50 and 59 years old. These data highlight the importance of considering demographic and regional variables when addressing public health. Understanding prevalence disparities between different groups can help define prevention strategies and health policies that are more effective and targeted to the unique needs of the population.

**129. EPIDEMIOLOGICAL STUDY OF HOSPITALIZATIONS DUE TO CATARACT IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Cataract is defined as the process of opacification of the lens, primarily caused by aging, and is the leading cause of reversible blindness worldwide. Considering the gradual aging of the population, this study aimed to epidemiologically assess hospitalizations due to cataract in Maranhão, as this condition is intrinsically linked to advanced age and has serious social impacts on patients who cannot access adequate healthcare services for treatment. **METHODS:** This is a retrospective and quantitative epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospitalizations diagnosed with cataract in Maranhão between 2019 and 2023. The correlated variables included the number of hospitalizations, year of treatment, health macroregion, sex, age group, color/race, and type of treatment. Since this is public domain information, submission to an Ethics and Research Committee was not necessary. **RESULTS:** During the studied period, Maranhão had 5,872 hospitalizations due to cataract, with the year 2021 recording the highest number at 2,000 hospitalizations (34.06%), followed by 2020 with 1,777 notifications (30.27%). The majority of patients were aged 60 to 79 years, accounting for 4,089 cases (69.64%). In terms of sex, women were more affected, with 3,165 (53.90%) hospitalizations compared to 2,707 (46.10%) for men. The most affected race was mixed-race (parda), with 3,137 (53.43%) of hospitalizations; however, there was significant underreporting in this variable, as 2,017 (34.35%) of the records did not include this information. Regarding the type of treatment, most cases were elective, with 5,541 (94.37%) being planned surgeries, while only 331 (5.36%) were urgent cases. The most affected region was the eastern macroregion, with 3,193 (54.38%) notifications. **CONCLUSION:** According to the study, the most affected profile was female, mixed-race individuals aged 60 to 79 years. The data highlights the need for continuous attention to early diagnosis and treatment of cataract, especially among the elderly population. Furthermore, the predominance of elective hospitalizations suggests effective planning of cataract surgeries in the region.

**130. EVOLUTION OF HOSPITALIZATIONS DUE TO STROKE IN BRAZIL BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Cerebrovascular accident (CVA) is the second leading cause of mortality in Brazil and also one of the major causes of hospitalizations. Therefore, it is essential to understand how these numbers have evolved in recent years. This study aims to describe the epidemiological data and analyze the trends in the number of hospitalizations due to CVA in Brazil. **METHODS:** This study is ecological, cross-sectional, descriptive, and analytical, with an analysis conducted in Brazil from 2018 to 2022. All patients present in the database were included, filtered through the International Classification of Diseases code I64. A linear regression model in time series was performed to analyze the number of hospitalizations and to identify potential linear trends, with a significance level of 0.05 and  $p < 0.05$ . Data from the Department of Informatics of the Unified Health System were analyzed; these data are secondary and publicly available, thus exempting the need for approval from an ethics committee. **RESULTS:** During the period under analysis, a total of 810,952 hospitalizations were recorded, of which 99.9% were illiterate, with a mean age of 66.77 years and a standard deviation (SD) of 14.91 years. Geographically, 42% of patients were from the Southeast, 28.1% from the Northeast, 17.9% from the South, and the remainder distributed among the Central-West and North regions. The average length of hospitalization was 7.22 days with a standard deviation of 8.52 days, and 15% resulted in mortality. For analysis, the period was divided into 60 months. Using the JoinPoint regression model, four significant trends were identified during the period: the first was an increasing trend with an annual percentage change (APC) of 0.38 and  $p = 0.007$  from months 1 to 25; the second was a decreasing trend with an APC of -5.23 and  $p = 0.006$ ; the third was an increasing trend with an APC of 0.98 and  $p = 0.001$ ; and the final trend was a decreasing one with an APC of -30.17 and  $p < 0.0001$ . The final APC over the 60 months was decreasing and significant, with an APC of -0.82 and  $p < 0.0001$ . **CONCLUSION:** In light of this, it was possible to understand the behavior of the number of hospitalizations in Brazil during this period, which exhibited significant variability, including a sharp decline in trend at the end of 2019, followed by an increasing trend starting from the end of that year, reaching its peak at the end of 2022.

**131. EXTRACT OF *Fridericia platyphylla* REDUCES SERUM LEVELS OF CARDIAC BIOMARKERS IN RATS**

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**INTRODUCTION:** *Fridericia platyphylla* belongs to the Biognoniaceae family and is widely used by the population for the treatment of kidney stones and joint pain. It is rich in phenolic compounds known for their cardioprotective, hypotensive, and antioxidant properties. This study evaluated the effect of oral treatment with Hydroethanolic Extract of *F. platyphylla* leaves (HEFP) on the blood pressure levels of normotensive animals, aiming to assess its hemodynamic and cardioprotective effects. **METHODS:** The leaves of *F. platyphylla* were collected, dried, ground, extracted, and freeze-dried, resulting in the EHFP, which was administered to normotensive Wistar rats after a 15-day adaptation period. To this end, the animals were previously randomized into groups ( $n=6$ ), with one group being treated with 100mg/kg and the other with 250mg/kg of HEFP for 15 days, orally, in a single daily dose. At the end of the treatment, cardiac injury was induced with isoproterenol (85 mg/kg) in the treated groups and in the control group (healthy), which did not receive HEFP, on the 14th and 15th days, subcutaneously. The project was approved by the Animal Ethics and Research Committee/UFMA, under protocol no. 23115.019856/2023-61. **RESULTS:** Regarding the effect on blood pressure, HEFP did not promote significant hemodynamic changes. Additionally, concerning the cardioprotective effect, evaluated through cardiac biomarkers such as aspartate aminotransferase, creatine phosphokinase, creatine phosphokinase MB fraction, and lactate dehydrogenase, no significant differences were observed between the groups treated with the extract at both doses when compared to the healthy control group, demonstrating that the extract prevents cardiac changes by normalizing the serum levels of these biomarkers. **CONCLUSION:** Thus, it is concluded that the different doses administered do not exert a cardioprotective effect without adverse effects on hemodynamic patterns, supporting the scientific validation and bioprospecting of this plant species.

**132. FACTORS ASSOCIATED WITH POSTPARTUM DEPRESSION: A COMPREHENSIVE REVIEW**

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**INTRODUCTION:** Mental disorders are clinical manifestations related to several changes, which can be chemical, physical and/or genetic. These disorders affect many people, especially women. Postpartum depression (PPD) is defined as a major or minor depressive episode, with no psychosis, that begins during pregnancy or in the first 12 months after delivery. The diagnosis of postpartum depression is difficult to achieve, since several manifestations are common in the puerperium. Thus, this study aims to identify the risk factors associated with postpartum depression. **METHODS:** This is an integrative literature review, carried out in the LILACS, PUBMED and SCIELO databases, in which studies that addressed the aforementioned theme were included from articles published between 2020 and 2024. The following descriptors were used: "postpartum depression", "risk factors" and "postpartum". **RESULTS:** The literature points to several risk factors associated with postpartum depression. Among them, the most prominent is the presence of depression during pregnancy, followed by gestational diabetes, lack of marital and social support. Other significant factors include complications during pregnancy, low socioeconomic status, stressful life events, prenatal anxiety, and psychological violence. In view of this, it was demonstrated that the presence of probable postpartum depression and unplanned pregnancies were responsible for damaging the maternal bond. In this sense, it was observed that the prevalence of PPD in women during the years 2020 and 2021 was higher than the research rates during the non-pandemic period, since the global incidence of PPD until 2017 was approximately 10% in developed countries; and around 21–26% in developing countries during the pre-COVID-19 period, while during the pandemic it reached 34%. **CONCLUSION:** In this context, it is clear that there is a negative impact of postpartum depression on the maternal bond, which can generate detrimental repercussions on the development of these children. Furthermore, the pandemic and risk factors have contributed to an increase in the incidence of PPD, which suggests the need to search for protective factors.

**133. GESTATIONAL FACTORS ASSOCIATED WITH CONGENITAL SYPHILIS INFECTION**

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<sup>1</sup> University Center of Maranhão - Imperatriz

**INTRODUCTION:** Syphilis is a sexually transmitted infection (STI) caused by *Treponema pallidum*, which can also be transmitted vertically, from the pregnant woman to the conceptus. A contamination results in various events, such as congenital diseases, miscarriage, fetal death, prematurity and late sequelae. Thus, congenital syphilis (CS) occurs through maternal gestational factors transmitted to the fetus. Maternal gestational factors, which favor the high incidence of the disease. **METHODS:** This is a literature review whose articles were collected using the descriptors "fatores" or "factors", "gestacionais" or "gestacional", "sífilis congenita" or "congenital syphilis". It was carried out using articles published on the Biblioteca Virtual em Saúde, medline and lilacs platforms, totaling 34 materials, 8 of which were used. The inclusion criteria were original and review articles, published in full in Portuguese and English, with a time limit of five years. Duplicate articles and those that did not follow the theme were removed. **RESULTS:** With regard to the evidence related to gestational factors involved in congenital syphilis, 92.6% of the mothers of children with syphilis were diagnosed late in the prenatal phase, which made early and adequate treatment unfeasible. Late diagnosis, which made early and adequate treatment unfeasible. A study published in the American Medical Association, the impact of maternal serological screening and testing in the third trimester of pregnancy, which would prevent transmission to the fetus, and transmission to the fetus, and diagnosis at the time of delivery. Furthermore, low adherence to treatment by pregnant women and their sexual partners is a persistent problem, due to reinfection and the maintenance of this scenario. **CONCLUSION:** It is concluded that the high incidence of CS suggests shortcomings in prenatal care and indicates the need to reorient pregnant women in order to reduce vertical transmission of syphilis. In this way, training health professionals and reinforcing guidance and active. For adequate treatment of sexual partners is essential in order to contain the factors associated with congenital syphilis infection.



**134. FACTORS THAT MOTIVATE ALCOHOL CONSUMPTION BY FIRST-YEAR MEDICAL STUDENTS**

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**INTRODUCTION:** Alcohol is a dangerous psychoactive substance in terms of the harm it causes both to the user and to others. Alcohol-related problems have a wide scope and transcend the individual who drinks. Among the courses, the medical course stands out in relation to the number of students who begin to consume alcohol after entering university. Therefore, there is a clear need to analyze what motivates alcohol consumption among these students and to understand the influence of the university, family members, and mental health on the initiation/increase of this consumption. **METHODS:** Data were collected from articles in the Scielo, PubMed, and BVS databases. The inclusion criteria are articles that addressed the proposed topic, published between 2019 and 2024. Duplicated studies or those published before 2019 were excluded. **RESULTS:** Of the 27 articles found, 10 were analyzed. An intrinsic relationship between alcohol consumption and psychiatric disorders was examined. A high prevalence of psychopathology and substance use was observed among the student population. Alcohol is the most consumed substance and may precede the use of illicit drugs. The abusive use of alcohol increases the likelihood of developing psychiatric disorders, such as depression, social phobia, and anxiety, by threefold. There is a strong association between family dysfunction and alcohol use among students. Risky consumption is linked to dysfunctional family support and a family history of abusive use. Another contributing factor to this habit is the social group, due to the need for inclusion in new university groups and the desire to socialize, especially in the first year. It was shown that almost half of the students consume alcohol frequently, most of them being men, with an average age of 22, high income, smokers, and physically active. The data collected support the thesis that the university is a favorable environment for the initiation and use of alcoholic beverages. **CONCLUSION:** There is a concerning prevalence of alcohol consumption among students, influenced by various factors, such as dysfunctional family support and psychological issues. It is recommended to implement educational programs about the risks of consumption, as well as screenings to identify students at risk and access to mental health services for support. It is imperative that academic and health institutions adopt proactive measures to protect students' mental health and promote a healthy and productive academic environment.

**135. SOCIOECONOMIC FACTORS AND MENTAL HEALTH IN PATIENTS WITH HEART FAILURE**

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**INTRODUCTION:** Heart failure with reduced ejection fraction (HFrEF) is the inability of the heart to pump blood effectively, which can compromise patients' quality of life and mental health. This study aims to analyze the association between mental health and socioeconomic factors in patients with HFrEF. **METHODS:** This is a cross-sectional study conducted with outpatients diagnosed with HFrEF, evaluated from 2022 to 2024. To assess mental health, two questionnaires were applied: one targeting anxiety, the Generalized Anxiety Disorder 2 (GAD-2), and another for depression, the Patient Health Questionnaire-2 (PHQ-2). For each questionnaire, a score of three or higher indicates a higher likelihood of the patient having these conditions. The socioeconomic variables used were: age, gender, ethnicity, occupation, marital status, family per capita income, and average spending on medications. Logistic regression was employed to analyze the association between the GAD-2 and PHQ-2 scores and the socioeconomic variables. Additionally, descriptive analysis was performed using RStudio software. The study was approved by the Research Ethics Committee (CAAE: 25756919.9.2004.5086). **RESULTS:** A total of 218 patients were included in the study, with a mean age of  $59.8 \pm 12.2$  years. The majority were male (70.6%), mixed race (56.4%), married (51.2%), and retired (56.4%). The average family per capita income was R\$ 959.80, with an average medication expense of R\$ 520.50. Regarding the GAD-2 questionnaire, 27.9% (n=61) had a positive score ( $\geq 3$ ) for anxiety. In the PHQ-2 analysis, 22.4% (n=49) had a positive score ( $\geq 3$ ) for depression. The association between the GAD-2 score and socioeconomic variables yielded a p-value of 0.042 (OR:1.7 and CI:1.02-2.84), while the association between the PHQ-2 score and socioeconomic variables showed a p-value of 0.425 (OR:1.21 and CI:0.75-1.94). **CONCLUSION:** Although there was an association between anxiety and socioeconomic variables, the same was not observed for depression when associated with social aspects. This may indicate that socioeconomic factors generate concerns about the patient's future, reinforcing the biopsychosocial concept of health. Therefore, it is important to address not only the physical aspects of the disease but also combine pharmacological treatment with psychosocial support.

**136. EXPENSES OF HOSPITAL SERVICES FOR RHEUMATOID ARTHRITIS IN MARANHÃO BETWEEN 2020 AND 2024**

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**INTRODUCTION:** Rheumatoid arthritis (RA) is a chronic and progressive autoimmune disease that causes inflammation in the joints, of multifactorial origin with genetic and epigenetic factors at its origin. Objective: To evaluate the costs of hospital services for RA and other inflammatory polyarthropathies in the State of Maranhão from January 2020 to January 2024. **METHODS:** Ecological, quantitative, descriptive study, with analysis of data registered at SINASC and made available on the website of the SUS Information Technology Department (DATASUS). **RESULTS:** In total, R\$ 1,470,286,213.13 were spent on hospital services for rheumatoid arthritis and other inflammatory polyarthropathies in the State of Maranhão in the period between January 2020 and January 2024. According to the variables, women demanded more resources, a value of R\$ 853,648,175.27, that is, 58.06% of expenses, as well as the age group of 40 to 49 years required more resources (18, 11% of expenses) in the period analyzed. The diagnosis and treatment of RA and other polyarthropathies is still quite time-consuming and expensive, so that, sometimes, the patient discovers the disease when hospitalization is required. This is because confirmatory diagnosis and treatment require a lot of financial resources. **CONCLUSION:** RA and other polyarthropathies generate high costs for patients and society, showing the need for early diagnosis and adequate treatment, promoting the best prognosis for this population and minimizing public spending on this population. Understanding these expenses helps to direct the incorporation of technologies into the SUS in a balanced way.

**137. HOSPITAL MORTALITY IN CONGENITAL HEART DISEASES BEFORE AND AFTER THE PANDEMIC**

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**INTRODUCTION:** Congenital heart diseases (CHD) are anatomical malformations of the heart or major vessels. CHDs are among the leading causes of neonatal morbidity and mortality, with an increasing prevalence in the population, potentially exacerbated by various external factors such as medications, radiation, and pathologies, including viral infections. In this context, humanity experienced a state of emergency due to the COVID-19 pandemic, and its impacts are still being studied over the years. Therefore, this study aimed to outline and analyze, from an epidemiological perspective, hospital deaths due to congenital heart diseases in the pre-and post-COVID-19 periods. **METHODS:** This is a retrospective observational quantitative study that analyzed available data on the epidemiological profile and deaths from congenital heart diseases in the Hospital Information System of the Department of Informatics of the Unified Health System (DATASUS) to compare characteristics before (2018 and 2019) and after (2021 and 2022) the context of the COVID-19 pandemic. Patients under 1 year of age were included. Data from the year 2020 were excluded. **RESULTS:** In the 2018-2019 period, 6,419 deaths were recorded, predominantly among male individuals (3,465) and those of white color/race (3,134). In parallel, during 2021-2022, these patterns were maintained, with 5,707 total deaths, 3,087 males, and 2,613 of white color/race. There was a significant 11.1% reduction in the total number of deaths, representing a decrease of 712 cases compared to the previous period. Of these, there were 1,851 deaths in patients aged 0 to 6 days, 1,525 deaths in those aged 7 to 27 days, and 3,043 deaths in those aged 28 to 365 days during the pre-pandemic period. Additionally, there were 1,692 deaths in patients aged 0 to 6 days (a reduction of 0.08%), 1,339 deaths aged 7 to 27 days (a reduction of 12.1%), and 2,676 deaths aged 28 to 365 days (a reduction of 12.5%) in the post-pandemic period. **CONCLUSION:** The comparison of hospital deaths due to CHD between the pre-and post-COVID-19 pandemic periods demonstrated a reduction in the number of deaths, with the predominance of male children of white color/race remaining. There was a proportional reduction in the numbers for the age groups 7 to 27 and 28 to 365 days of life. Therefore, the absolute number of deaths decreased, but the epidemiological patterns regarding sex, age, and color/race in CHD within the context and impacts of the pandemic remained consistent.

**138. HOSPITALIZATION IN LARGE ELDERLY MARANHENSE DUE TO GENITOURINARY DISEASES**

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**INTRODUCTION:** In underdeveloped countries, there has been an increase in life expectancy, with a marked aging of the population and an increase in comorbidities, mainly genitourinary diseases due to decreased functional capacity and physiological changes in the elderly. Involvement of the genitourinary system is particularly more prevalent among postmenopausal women, influenced by factors such as estrogen deficiency, increased residual urine output and cystocele, leading to conditions such as urinary infections. As a result, the number of hospitalizations tends to increase, in line with population aging, especially in the age group over 80 years. This study aims to analyze hospitalizations and deaths of women over 80 years of age due to diseases of the genitourinary system between 2010 and 2012 and 2020 and 2022. **METHODS:** This is a descriptive analysis of hospitalizations and deaths in elderly women from Maranhão between 2010 and 2012 and between 2020 and 2022. The data collected and analyzed were from the Information Technology Department of the Unified Health System, according to the variables: hospitalizations, deaths, ICD-10, sex, age group and period. Due to the use of secondary data in the public domain, there was no need for approval by the ethics committee. **RESULTS:** In the periods in question, 2,476 hospitalizations due to genitourinary system disease were recorded in the elderly, 948 from 2010 to 2012 and 1,528 between 2020 and 2022. These data reveal an increase of 61.18% in hospitalizations. Regarding deaths, from 2010 to 2012 there were 43 and between 2020 and 2022 there were 152 deaths, totaling 195 deaths in the elderly in the periods, with an increase of 253.48% between the compared intervals. Thus, these data may be related to the increase in life expectancy and the aging of the population, since the prevalence and severity of urinary infections, for example, increase with age, due to the reduction of defense mechanisms. **CONCLUSION:** Thus, the higher prevalence of hospitalizations and deaths due to genitourinary system diseases between 2020 and 2022 is due to the increase in life expectancy that establishes a new reality in the health system. However, more comprehensive epidemiological studies are needed to map the prevalence and manifestation profiles of diseases, allowing the creation of plans and strategies to reduce the incidence of hospitalizations in the elderly population.

**139. HOSPITALIZATIONS AND DEATHS DUE TO MENTAL AND BEHAVIORAL DISORDERS IN MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Mental health is characterized as a state experienced by an individual that enables the development of personal skills to respond to life's challenges and contribute to society. Mental and behavioral disorders, also known as psychiatric or psychological disorders, are dysfunctions of thinking, emotions, and/or behavior that directly impair and affect mood, reasoning, and memory. Additionally, hospital care is one of the key elements in promoting mental health, making it essential to characterize the morbidity associated with mental and behavioral disorders within this context. **METHODS:** This is an epidemiological, retrospective, and quantitative study conducted by reviewing data made available by DATASUS regarding hospital morbidity in the SUS (Brazil's public health system) related to mental and behavioral disorders reported in the state of Maranhão from 2012 to 2022. The variables analyzed were: number of hospitalizations, deaths, year of processing, gender, race/skin color, age group, and type of care. **RESULTS:** A total of 745 hospitalizations and 4 deaths related to mental disorders were reported during the research period. The year 2012 had the highest number of hospitalizations (N=113), while 2017 had the lowest (N=34), although an increase was observed in 2020 with a rise in hospitalizations (N=92). The most prevalent gender was female, accounting for approximately 54,49% of hospitalizations and 75% of deaths. Of the total, only 306 hospitalizations (41,07%) and 1 death (25%) had race/skin color information reported. Brown-skinned individuals represented the majority of hospitalizations and deaths during the period, with 32,34% and 5%, respectively. The 20 to 29-year age group had the highest number of hospitalizations (25,36%), peaking between 40 and 49 years (18,52%). Regarding the type of care, emergency hospitalizations (N=514) exceeded elective hospitalizations (N=231). **CONCLUSION:** The analysis revealed a profile of hospital morbidity and mortality related to mental and behavioral disorders in the state of Maranhão, predominantly involving women aged 20 to 49 years, of brown skin color, with most hospitalizations being of an emergency nature. This highlights the need for stronger outpatient follow-up for these patients and the implementation of public policies targeting this vulnerable population.

**140. HOSPITALIZATION DUE TO HEART FAILURE IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Heart failure (HF) is a syndrome of ventricular dysfunction where the heart muscles are unable to effectively pump blood, meaning that in HF the heart can no longer keep up with the demands to pump blood to the rest of the body. The epidemiology of HF estimates about 6,5 million people in the United States, with more than 960.000 new cases each year. Risk factors for HF include hypertension, coronary artery disease, cardiomyopathies, and ventricular dysfunction. Thus, the study aims to analyze the epidemiological profile of hospitalizations due to HF in the state of Maranhão between 2019 and 2023. **METHODS:** This is an epidemiological, cross-sectional, descriptive, retrospective study with a quantitative approach regarding hospitalizations for heart failure in the state of Maranhão. Data were obtained through consultations with the database of the Informatics Department of the Unified Health System (DATASUS). The variables analyzed were the number of hospitalizations during the period, micro-regions, sex, age group, and race. **RESULTS:** During the studied period, the state of Maranhão reported a total of 17.965 hospitalizations due to heart failure. As for the micro-regions, the highest number of hospitalizations occurred in the urban agglomeration of São Luís (n=4.302), followed by the micro-region of Imperatriz (n=2.373). Regarding sex, there was a predominance of males (n=9.937) compared to females (n=8.028). Concerning the age group, the ages of 70 to 79 years and above 80 years were the most prevalent, both representing 49,9% hospitalizations in the state. Regarding race, individuals of brown skin predominated (55%), however, in 34.9% of hospitalizations, race information was not collected. **CONCLUSION:** The present study showed that hospitalizations due to heart failure in Maranhão have a significant number of hospitalizations, with the micro-regions of São Luís and Imperatriz having the highest volume. In this context, male individuals, over 70 years of age, and of brown skin are the characteristic profile of HF hospitalizations in Maranhão.

**141. DOPAMINE IMPACT ON CYBERDEPENDENCY: A SOCIAL MEDIA AND INTERNET ANALYSIS**

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**INTRODUCTION:** Dopamine (DA) is a neurotransmitter related to pleasure and reward pathways and its release can be influenced by the use of social media and the internet (SMI). This happens because algorithms create a fleeting sense of well-being, encouraging repetitive use, making it necessary to understand the associations involved in this vicious cycle. Therefore, this study aims to examine the relationship between SMI use and DA release. **METHODS:** Integrative review based on the PRISMA Protocol, which used the descriptors "redes sociais", "internet," and "dopamina" along with their English counterparts, in the SCIELO, PUBMED and EMBASE databases. Primary articles published within the last 5 years, available in English or Portuguese, open access and addressing DA physiology or gene expression in relation to SMI use were included. Duplicated studies and those centered solely on addiction treatments or examined DA and SMI in isolation were excluded. **RESULTS:** A total of 203 studies were found, 191 were excluded based on the exclusion criteria, and 12 articles make up this review. The analysis revealed that the use of SMI creates a system of reward variability, which confers addictive potential, sensitization, and behavioral dependence. As such, abnormalities in DA transporter levels are associated with depression, bipolar disorder, and Parkinson's disease. The behavior of internet-dependent users showed higher levels of impulsivity and compulsivity, associated with reduced availability of DA receptors. It was noted that people with internet use disorders exhibit greater "wanting-liking" dissociation compared to those with regular gaming habits, experiencing a "U-shaped" relationship between hedonic experience and gaming intensity, meaning that the individual experiences an initial increase followed by a reduction in DA release, with a decrease in the sensation of pleasure as gaming hours increase. **CONCLUSION:** Samples from individuals dependent on virtual environments show a reduction in DA receptor availability, a change consistent with the development of psychiatric disorders and risky behavior problems. The high dissociation between "wanting-liking" in these individuals distorts the sense of reward derived from gaming, masking the real symptoms of low DA uptake. Therefore, this study emphasizes the neurological impairment associated with internet dependency and underscores the need for more specific studies to fully understand this issue.

**142. IMPACT OF CERVICAL CANCER PREVENTION: RETROSPECTIVE STUDY IN A CITY IN MARANHÃO**

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**INTRODUCTION:** Cervical cancer is a public health problem in Brazil, especially in areas with limited access to health services. Prevention and early detection through cytological tests, such as the Pap smear, are essential to reduce its incidence and mortality. The city of Rosário, in the interior of Maranhão, showed a significant increase in the number of tests performed between 2022 and 2023 due to a state incentive that boosted screening coverage. This retrospective study evaluates the impact of this initiative on women's health in the region, highlighting the importance of state intervention and the resulting benefits. **METHODS:** This is a descriptive, retrospective and cross-sectional observational epidemiological study, produced through data collected via DATA/SUS. Data on the performance of cytopathological exams between 2022 and 2023 in Rosário were analyzed, including quantity, race, age of patients and exam results. **RESULTS:** A total of 91,016 cervical cytopathological exams were performed in Rosário in 2022 and 2023. There was an increase of approximately 42.7% between the years. The age group from 35 to 39 years had the highest prevalence of exams (n = 13,018), followed by the groups from 30 to 34 years (n = 12,019) and 25 to 29 years (n = 11,114). Regarding race, yellow women (n = 44,335) prevailed, followed by brown women (n = 32,159), white (n = 9,009), black (n = 3,952) and indigenous women (n = 241). The majority of exams (n = 90,326) were performed for screening, representing 99.24% of the total. Repeat (n = 249) and follow-up (n = 441) exams were a minority. In the results of the reports, 99.3% (n=90,356) were recorded as ignored. A total of 660 cytological alterations were recorded, of which low-grade lesions were the most recurrent (n=441). Rosário, despite being the 33rd most populous municipality, was the second to perform the most Pap smear exams in the state between 2022 and 2023. **CONCLUSION:** The data reflect a high coverage rate of cytopathological exams in Rosário-MA, especially among women aged 35 to 39 years and predominantly of Asian race. The emphasis on screening, driven by state incentives, is positive for public health, although the high proportion of ignored results suggests the need for improvements in the registration and diagnosis system. The prevalence of low-grade lesions reinforces the importance of continuous screening and adequate follow-up for the prevention of cervical cancer.

**143. IMPACT OF PRENATAL CARE ON FETAL MORTALITY DUE TO SYPHILIS IN THE NORTHEAST**

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**INTRODUCTION:** Fetal mortality due to syphilis is an interruption in the pregnancy of a carrier of the disease, in which treatment was absent or inadequate, characterized by the delivery of a stillborn with a weight greater than or equal to 500g during the perinatal period. In this way, the actions for controlling and eliminating congenital syphilis, present in quality prenatal care, play an important role in reducing this number of deaths. In light of the context, the present study aimed to analyze the impact of prenatal care on fetal mortality in cases of congenital syphilis in the Northeast. **METHODS:** This is a descriptive, cross-sectional, and quantitative study based on data provided by the Department of Information and Informatics of the Unified Health System from the Northeast region, covering the period from 2018 to 2023, regarding congenital syphilis, analyzing the variables: of prenatal care, Brazilian region, residence in municipalities of extreme poverty, and stillbirth/abortion due to syphilis. **RESULTS:** A total of 812 deaths/fetal abortions due to congenital syphilis were recorded in the Northeast region over the studied years. Among these quantities, a difference was observed in the number of cases between pregnancies with prenatal consultations and those without, 290 versus 522, respectively. Although they remain distinct, the numbers of fetal deaths due to congenital syphilis, when analyzing the prenatal factor, are not very different when including the variable of residence in impoverished municipalities, expressed as 51 for pregnant women who received antenatal care and 52 for those who did not receive assistance. What is not observed in areas without excessive vulnerability, maintains a significant distance between the numbers of deaths. **CONCLUSION:** This survey highlights the impact of prenatal care on cases of fetal mortality due to congenital syphilis in the Northeast, making this care essential for the well-being of pregnancy. Meanwhile, the economic vulnerability of localities is also a factor that alters the chances of fetal survival, indicating the strong relationship between socioeconomic aspects and health promotion.

**144. ECONOMIC IMPACT OF ACUTE MYOCARDIAL INFARCTION ON THE BRAZILIAN UNIFIED HEALTH SYSTEM**

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**INTRODUCTION:** Acute myocardial infarction (AMI) is an abrupt ischemic condition that reflects the death of cardiac myocytes due to obstruction of coronary flow. Considered the leading individual cause of death in Brazil, the treatment of patients affected by AMI entails significant costs for the Brazilian Unified Health System (SUS). The study aims to assess the expenses incurred by SUS in managing this condition. **METHODS:** An integrative literature review was conducted with data collection from the Scielo and PUBMED databases, using the descriptors "Myocardial Infarction," "Unified Health System," and "Health Expenditures." Articles published between 2018 and 2023 that assessed the epidemiological profile of AMI and its costs for the SUS were included. Articles in Portuguese and English from the past five years were considered, while articles that did not focus on a national analysis of the topic were excluded. **RESULTS:** Patients suffering from AMI require immediate intervention, hospitalization, and post-discharge care to prevent possible complications of the disease, and all these measures significantly impact the SUS. Between January 2010 and July 2020, 1,066,194 cases of AMI were recorded in Brazil, which generated R\$3,158,790,926.12 in budgetary expenses for the SUS. The aging population, sedentary lifestyle, obesity, alcohol consumption, smoking, systemic arterial hypertension, and diabetes mellitus are some of the main risk factors related to cardiovascular diseases. With the adoption of preventive health measures, these can be avoided, reducing incidence and costs. Direct and indirect costs in Brazil have been rising, with significant expenses related to medications, social security, and associated morbidities. **CONCLUSION:** AMI represents a significant challenge for the SUS in Brazil, both in terms of financial impact and the need for intensive and continuous care for patients, generating considerable expenses and reflecting the magnitude of the problem. The cost analysis highlights the urgency of effective prevention and control strategies. Mitigating risk factors can lead to a significant reduction in both the prevalence of the disease and healthcare costs. Investing in prevention programs and public policies aimed at promoting cardiovascular health is therefore crucial to reducing the financial burden on the SUS and improving the population's quality of life, integrating both prevention and treatment.

**145. EPIDEMIOLOGICAL IMPACT OF COVID-19 ON PLEURAL DRAINAGES FROM 2014 TO 2023 IN BRAZIL**

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**INTRODUCTION:** The COVID-19 pandemic brought significant challenges to performing medical procedures, including pleural drainage. This procedure is essential for treating conditions such as pneumothorax and pleural effusions. Therefore, this study aims to analyze the number of hospitalized patients who underwent thoracostomy with closed pleural drainage and the mortality rate over the past 10 years in institutions linked to the Unified Health System (SUS). **METHODS:** This is a cross-sectional, observational, descriptive study, retrospective in nature and quantitative, analyzing the number of hospitalizations where thoracostomy with closed pleural drainage was performed. Data were obtained from the Hospital Production of the SUS Hospital Information System (SIH/SUS) through the Department of Informatics of SUS (DATASUS) for all hospitalized individuals who underwent thoracostomy with closed pleural drainage between 2014 and 2023, according to the year of processing of the Hospital Admission Authorization (AIH). The representative measures of the average for the period were used, including the years preceding the COVID-19 pandemic, the pandemic onset year, and the years 2020 and 2021 (the first two years), using Microsoft Excel 2013 and data provided by DATASUS. **RESULTS:** A total of 435,297 hospitalizations where thoracostomy with closed pleural drainage was performed were recorded between 2014 and 2023. The average for the last 10 years (2014-2023) was 43,530. From 2014 to 2019, when COVID-19 was not present, the average was 40,382. From 2020 onwards, with the onset of SARS-CoV-2 infection, the average number of hospitalizations was 48,251, and during the first two years (2020-2021), the average was 44,163. The mortality rate from 2014 to 2019 was 16.19%. From 2020 onwards, the rate was 16.19%, and during the first two years of COVID-19, it was 18.6%. **CONCLUSION:** There was a higher average number of thoracostomy procedures with closed pleural drainage in hospitalized patients during the years of SARS-CoV-2 infection compared to the pre-pandemic years from 2014 to 2019. Additionally, the mortality rate increased after the onset of COVID-19, particularly during the first two years. It can thus be inferred that the pandemic led to an increase in the number of thoracostomy procedures with closed pleural drainage and a higher mortality rate among hospitalized patients treated by SUS.

**146. IMPACTS OF CELIAC DISEASE IN CHILDHOOD: A LITERATURE REVIEW**

Lívia Sousa de Matos<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Thalita Linda Alves Candeira<sup>1</sup>, Laynna Stephany Cordeiro Silva<sup>1</sup>, Emyllie de Fátima Castro Cavalcante<sup>1</sup>, Rebeca Thamires Serra Araujo<sup>1</sup>, Mônica Elinor Alves Gama<sup>1</sup>.

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**INTRODUCTION:** Celiac disease is an autoimmune disorder triggered by gluten, leading to impaired nutrient absorption in the small intestine. With a prevalence of approximately 1%, it necessitates a strict gluten-free diet. Diagnosis is frequently delayed, resulting in complications such as osteoporosis and anemia. The primary treatment involves lifelong adherence to a gluten-free diet, which alleviates symptoms and prevents further complications. Therefore, this study aims to explore the challenges faced by children with celiac disease and assess its impact on their quality of life during childhood.

**METHODS:** This study is a systematic literature review, seeking scientific evidence from articles across multiple databases, including PubMed, Lilacs, and Scielo. The search was conducted up to June 2024 using the keywords: "Celiac Disease," "Child," and "Health." Inclusion criteria limited the selection to articles published in the last 6 years, available in Portuguese, and in full-text format. **RESULTS:** The analysis of selected articles on pediatric celiac disease identified significant immunological and metabolic consequences, such as osteoporosis, iron deficiency, brain calcifications, and behavioral disorders. Common gastrointestinal complications included abdominal pain, flatulence, chronic constipation, diarrhea, foul-smelling stools, lactose intolerance, vomiting, and gastroesophageal reflux. Moreover, the data revealed that celiac disease also imposes substantial psychosocial burdens on patients, given the significant lifestyle changes required from childhood—a critical stage in physical, psychological, and social development. Anxiety, depression, feelings of isolation, and challenges in social relationships and daily activities were frequently reported. Additionally, celiac disease may contribute to growth retardation, migraines, and skin rashes in children.

**CONCLUSION:** Due to the typically delayed diagnosis, celiac disease can lead to serious health complications. When it manifests in childhood, these complications profoundly impact the child's development, particularly in terms of nutrition. Mental health may also be structurally compromised, hindering social development. Therefore, early diagnosis is crucial to mitigate long-term damage to health, alongside multidisciplinary support to ensure that all dimensions of health are appropriately addressed.

**147. IMPACTS OF EXERCISE PHYSIOLOGY ON AUTISTIC NEURODEVELOPMENT: INTEGRATIVE REVIEW**

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<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Autism Spectrum Disorder (ASD) is a disorder responsible for behavioral manifestations, deficits in communication and social interaction. Early diagnosis and inclusion of autistic individuals in a specialized treatment modality that includes motor and collective activities is essential for neurodevelopment and a good prognosis. Therefore, the objective of this research was to evaluate the impacts of exercise physiology on autistic neurodevelopment.

**METHODS:** The study was developed through an integrative literature review based on articles published in Portuguese and English in the last five years in the Google Scholar, Scielo, Virtual Health Library (VHL), Ministry of Health and Pan American databases. Health Organization (PAHO), with the crossing of the descriptors "Autism Spectrum Disorder", "Neurodevelopment" and "Exercise Physiology". The exclusion criteria were articles that differed from the theme and that were repeated in the database. **RESULTS:** One in every 160 children in the world has autism, a neurodevelopmental disorder that is related to repetitive, atypical behavior patterns, deficits in communication and social interaction. In this sense, parents and/or guardians must be aware of signs suggestive of ASD, considering that early identification allows for efficient results in the development of daily living skills and brain neuroplasticity. In this context, the practice of physical exercises by autistic individuals develops skills such as flexibility, balance, laterality, strength and speed, which reduce anxiety and hostile and irritable behaviors. When exercising, the individual receives several benefits by stimulating the release of neurotransmitters and neurotrophic factors through activation of the sympathetic system, increased cerebral blood flow, interaction with the Hypothalamic-Pituitary-Adrenal (HPA) axis and increased gene expression related to Brain Derived Neurotrophic Factor (BDNF). By stimulating the release of dopamine and serotonin, neurohormonal circuits are strengthened and mood, well-being and attention are maintained. With the increase in gamma-aminobutyric acid (GABA) levels, there is a drop in neuronal excitability and consequently a calming effect. **CONCLUSION:** Therefore, by improving motor skills and strengthening innate skills, exercise enables social inclusion and provides global development.

**148. IMPACTS OF BREAST REDUCTION SURGERY ON WOMEN'S WELL-BEING**

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**INTRODUCTION:** Breast reduction surgery is a surgical procedure performed to decrease breast size. Women suffering from breast hypertrophy often experience symptoms of Body Dysmorphic Disorder (BDD) and a loss of functional physical fitness. Therefore, this surgery goes beyond aesthetic concerns, and this study aims to evaluate the positive impacts of this procedure on the health and well-being of patients. **METHODS:** This is an integrative literature review conducted through an electronic search in the virtual libraries PubMed and Scielo. The articles were categorized and separated according to their relevance to the topic, based on the descriptors "Breast Reduction," "Quality of Life," "Breast Hypertrophy," and "Reduction Mammoplasty," focusing on articles published between January 2018 and December 2024. Out of a total of 27 articles found, 7 were selected, including controlled clinical studies, randomized trials, meta-analyses, and systematic reviews, while those that were deemed incompatible with the objectives of the summary were excluded after reading. **RESULTS:** Patients with breast hypertrophy reported social difficulties such as shame and stigma, intolerance to exercise, severe pain, and other related complications. In contrast, those who underwent breast reduction surgery showed improvements in personal satisfaction with their breasts, as well as psychosocial, sexual, and physical well-being. In this regard, the studies demonstrated that the surgery led to complete remission of BDD symptoms six months after the procedure, and average scores on the Female Sexual Function Index and Body Image Scale significantly increased from pre-operative to three months post-surgery. Additionally, average scores on the Beck Depression Inventory were higher before surgery compared to three months afterward. **CONCLUSION:** It is possible to understand that breast hypertrophy in women leads to real difficulties in engaging in healthy, and often essential, daily activities like physical exercise. The differences in how women perceive themselves and how they feel others perceive them are evident. Therefore, breast reduction surgery emerges as an effective option to overcome the challenges faced, enhancing women's self-esteem and quality of life.

**149. IMPACTS OF THE COVID-19 PANDEMIC ON CHILDREN'S AND ADOLESCENT'S HEALTH: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** COVID-19 has impacted various aspects of human life, including physical health, mental well-being, and social development. In this context, children and adolescents — an age group at a crucial stage of development — also faced significant changes due to the pandemic, necessitating an understanding of these consequences for their care. Thus, this study aims to analyze the pandemic's impacts on the health of children and teenagers. **METHODS:** This is an integrative review study based on the PRISMA protocol, using the keywords "impacts," "pandemic," and "teenagers and children's health" in the PubMed database. Inclusion criteria encompassed primary articles published in the last five years, with no language or open-access restrictions. Case reports, books, documents, duplicates, and studies unrelated to the topic were excluded. **RESULTS:** The search yielded 635 articles, of which only 16 met the inclusion and exclusion criteria. The studies revealed that the pandemic generated financial and food insecurities in many families, reducing physical activity and sleep duration among this population. In boys, decreased physical activity was linked to a roughly 10% increase in body weight. Family conflicts rose due to increased cohabitation, alongside increased rates of eating disorders, mood disturbances, and schizophrenia after school closures. Additionally, suicide rates and substance use among youth surged by 90%. Changes in parental work routines positively affected sleep duration (an increase of 13 minutes/day), reduced screen time (a decrease of 82 minutes/day), and sugar-sweetened beverage consumption. Moreover, parental strictness in discipline was associated with childhood conduct issues. **CONCLUSION:** These findings indicate significant impacts on the physical and mental health of children and adolescents, particularly in socially vulnerable families. Reduced physical activity and increased body weight exemplify physical well-being detriments. In terms of mental health, rising rates of eating disorders, psychological issues, and alarming increases in suicide rates emphasize the seriousness of the situation. These findings highlight the need for multidisciplinary interventions aimed at mitigating the negative effects of social isolation on youth development.



**150. IMPACTS OF AGING ON CATARACT FORMATION**

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**INTRODUCTION:** Aging is a continuous biological process that results in the decline of organic functions and increased vulnerability to diseases such as cataracts. Cataracts are characterized by the opacification of the lens and are the leading cause of reversible blindness worldwide. Their prevalence increases with age, affecting up to 70% of elderly people over 75 years of age. Risk factors include smoking, alcohol consumption and corticosteroid use. Clinically, cataracts manifest as a gradual loss of visual quality, impacting acuity and contrast, and increasing the risk of falls, depression and anxiety. Prevention and early diagnosis are crucial to avoid blindness. This study examines the impact of aging on cataract formation, exploring the age-related physiological changes that contribute to this condition. **METHODS:** The study reviewed research on the topic from 2019 to 2024, using an Integrative Literature Review. Searches in the SCIELO, Pubmed and Google Scholar databases used the terms "aging," "cataract" and "impacts," including articles in Portuguese and excluding those without a scientific basis, prior to 2019, or duplicates. The analysis combined understandings from results of previous studies. Ten articles were used. **RESULTS:** Aging influences cataract formation through the accumulation of oxidative stress, protein aggregation, and cellular changes in the lens as defense mechanisms against oxidative damage are eroded. These changes result in clouding of the lens, decreasing its transparency and elasticity. Cataracts are common in the elderly and in decompensated diabetics. The review highlights factors such as oxidative stress, genetic predisposition, and metabolic changes related to aging. Understanding these mechanisms is crucial to improving diagnostics, treatments, and preventive measures that are more accessible to the population. **CONCLUSION:** Cataracts are a result of aging, but genetic and environmental factors, such as lifestyle habits, can accelerate their occurrence and increase blindness. Ophthalmological consultations are crucial to diagnose and treat lens opacity. Raising awareness of risk factors and promoting healthy habits are essential to reduce the impacts of aging on vision. The study highlights the importance of public health strategies to monitor and intervene early, reducing the incidence and complications of cataracts in the elderly.

**151. IMPORTANCE OF NEONATAL OPHTHALMOLOGICAL EXAMINATIONS IN THE DETECTION OF CONGENITAL EYE DISEASES**

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**INTRODUCTION:** Congenital ocular pathologies can severely affect vision if not detected early. The "red reflex test" (Red Reflex Test - RRT) is essential for the early diagnosis of conditions such as congenital cataracts, congenital glaucoma, and congenital retinoblastoma. Although a positive result does not always indicate pathology, early detection allows for interventions that can prevent negative impacts on the child's health and development. This abstract evaluates the effectiveness of the RRT in identifying congenital ocular diseases and its impact on children's visual ability. **METHODS:** The study reviewed research from 2019 to 2024 on the subject, using an Integrative Literature Review. Searches were conducted in the SCIELO, PubMed, and Google Scholar databases, using the descriptors "ophthalmological examination," "early diagnosis," and "ocular diseases," including articles in Portuguese and excluding those without a scientific basis, published before 2019, or duplicates. Ten articles were included. **RESULTS:** The review confirmed that the Red Reflex Test (RRT) is effective in the early detection of congenital ocular diseases. The prevalence of conditions such as congenital cataracts, congenital glaucoma, and congenital retinoblastoma was identified in various studies, highlighting the importance of the RRT as a diagnostic tool. Congenital cataracts affect about 1 in 10,000 births, and retinopathy of prematurity affects about 5% of premature babies. Early performance of the RRT allows timely interventions such as surgeries and drug therapies, which are crucial for preserving vision and the child's quality of life. However, challenges such as lack of resources, inadequate training, and variations in the test's execution hinder the effective implementation of the RRT. Factors such as gestational age and test accuracy also influence the results. **CONCLUSION:** The analysis shows that the Red Reflex Test (RRT) is essential for the early detection of congenital ocular diseases. While its effectiveness is proven, there are challenges associated with resource shortages, inadequate training, and variations in test execution. To ensure reliable results, it is crucial to consider factors such as gestational age and precision in conducting the RRT. The implementation of public policies to expand access to the RRT and the training of healthcare professionals is essential to improve the ocular health of newborns.

**152. INFLUENCE OF PD-L1 EXPRESSION ON CLINICAL DATA AND PROGNOSIS IN PENILE CANCER**

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**INTRODUCTION:** Penile cancer (PC) is a rare neoplasm in developed countries; however, it has a high incidence in developing countries, such as Brazil, particularly in the state of Maranhão. Studies suggest various mechanisms involved in the carcinogenesis of PC, such as the activation of the programmed death ligand pathway (PD1/PDL-1), which is a pathway that inhibits the adaptive immune response, and has been pointed out in studies as being involved in the poor prognosis of patients. In this context, the study aims to analyze the relationship between the presence of PDL-1 in PC samples and the prognosis of patients. **METHODS:** This is an experimental and translational study, with a convenience sample. Nineteen male patients with penile cancer, candidates for penectomy, treated at a reference oncology hospital in the state of Maranhão between 2017 and 2021, were included. The patients' samples were collected and analyzed after signing the informed consent form. The study was approved by the Research Ethics Committee under the opinion number CAAE: 1.308.275. An epidemiological analysis of the patients was conducted, and clinical and immunological data with PD-L1 expression were subjected to Spearman's correlation, considered significant with  $p < 0.05$ , using Graph Prism software. **RESULTS:** The mean age was 56.76 ( $\pm 19.48$ ), with 14 patients (82%) being farmers and 10 (58%) having no formal education. Regarding the histological type of the primary tumor, 12 (70.6%) were squamous cell carcinomas, 3 (17.6%) were epidermoid carcinomas, and 2 (11.7%) were spindle cell carcinomas. In terms of staging, 5 (41.2%) patients were classified as pT3, 5 (41.2%) as pT2, and 2 (16.6%) as pT1. A statistically significant correlation between PD-L1 expression and tumor histological grade ( $p = 0.048$ ) was observed; however, no significant correlation was found between PD-L1 expression and tumor staging ( $p = 0.174$ ). **CONCLUSION:** Thus, the study highlights the low socio-educational profile of patients affected by penile cancer. Additionally, the significant correlation between PD-L1 expression and histological grade suggests a possible association with a poorer patient prognosis. Therefore, a better understanding of these mechanisms may contribute to identifying new molecular targets that could aid in more effective treatment strategies for these patients.

**153. INFLUENCE OF DIABETES MELLITUS ON THE RISK OF VULVOVAGINAL CANDIDIASIS**

Lara Luiza Pitombeira Rocha<sup>1</sup>, Filipe Rainan Costa Silva<sup>1</sup>, Maria Beatriz Soares Vieira<sup>1</sup>, Yasmin Andrade Sampaio<sup>1</sup>, Maria do Desterro Soares Brandão Nascimento<sup>1</sup>.

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**INTRODUCTION:** Vulvovaginal candidiasis (VVC) is an infection of the vagina and vaginal vestibule caused by exacerbated colonization by fungi of the genus *Candida*. Diabetes mellitus (DM) is a metabolic disorder that causes hyperglycemia and affects patients' immunity, increasing their susceptibility to infections. In this regard, DM emerges as a predisposing factor for VVC, potentially compromising the immune response and providing a favorable environment for fungal growth. This study aims to analyze the influence of DM as a risk factor in the occurrence of VVC. **METHODS:** This is an integrative literature review conducted through the PubMed and Virtual Health Library (VHL) databases, using the descriptors "Vulvovaginal Candidiasis" and "Diabetes Mellitus", combined using the Boolean operator AND, delimiting articles from the period of 2019 to 2024. Out of a total of 35 articles found, 7 were selected, including reviews, cohort studies, and a case report, while 28 were excluded for not addressing the topic or being duplicates across databases. **RESULTS:** There is evidence of an increased risk of VVC in patients with DM, mainly due to reduced immune function (related to factors such as a decrease in the number of T lymphocytes and cytokine release) and hyperglycemia, which also hinders the response to antifungal therapy. This can lead to more severe symptoms, more intense colonization, and recurrent infections. Regarding patients with gestational diabetes mellitus (GDM), the results correlating this pathology with VVC were inconclusive, although there may be an association with changes in vaginal flora, low leukocyte function, reduced metabolism, and high body mass index. Additionally, the use of antidiabetic sodium-glucose cotransporter-2 (SGLT2) inhibitors, such as dapagliflozin and canagliflozin, makes patients more susceptible to VVC, as glycosuria is involved in the action mechanism of these medications, fostering fungal proliferation. **CONCLUSION:** It is concluded that DM represents an important predisposing factor for VVC, both because its pathophysiology facilitates infection and because one of its forms of treatment, SGLT2 inhibitors, also increases the risk of VVC. However, in relation to pregnant women, further studies are needed in order to better elucidate the relationship between GDM and the risk of VVC in this population.

**154. PROTON PUMP INHIBITORS AND RISK OF ISCHEMIC VASCULAR EVENTS, UPDATES**

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**INTRODUCTION:** Proton Pump Inhibitors (PPIs) have been on the market for about 40 years and are the primary drugs related to the treatment of peptic diseases. Over the years, PPIs have been used indiscriminately, with inappropriate prescriptions, administration periods beyond the recommended duration, or due to self-medication. It has been found that the concomitant use of PPIs and thienopyridines, such as Clopidogrel, increases the risk of developing cardiovascular diseases, such as ischemic and composite Stroke (CVA). Thus, the present study sought evidence from research on the relationship between prolonged use of PPIs and ischemic vascular events in patients with or without pre-existing comorbidities. **METHODS:** This is an integrative review in which scientific articles published in the PubMed database, between 2022 and 2023, were selected. The descriptors used were: "proton pump inhibitors", "adverse effect", and "ischemic event", combined using the Boolean operator "AND", according to the guidelines of the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) 2020. **RESULTS:** A total of 16 articles were found, of which only 5 met the inclusion criteria: presenting the descriptors in the title or abstract, being written in English, and being freely available in full text, excluding comments, books, and literature reviews. Studies reported that PPI use was significantly associated with higher risks of coronary artery disease, myocardial infarction, heart failure, and all-cause mortality in patients with diabetes. The literature also suggested that regular PPI use is associated with an increased risk of atherosclerotic cardiovascular disease, with Omeprazole, Lansoprazole, and Pantoprazole being associated with higher risk. However, some studies were controversial and indicated that PPI use did not show a causal relationship with the occurrence of ischemic vascular events. **CONCLUSION:** The results remain inconclusive regarding the direct relationship between ischemic vascular events and prolonged PPI use. Therefore, further studies are necessary to rule out this risk factor when considering long-term therapy.

**155. HEART FAILURE IN MARANHÃO: EPIDEMIOLOGICAL PROFILE BETWEEN 2020 AND 2024**

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**INTRODUCTION:** Heart Failure (HF) is a syndrome characterized by a reduction in cardiac output or ventricular filling time, which can be due to structural or functional abnormalities. Certain risk factors, such as obesity and high blood pressure, combined with specific complementary tests, help to diagnose it. In Maranhão, this condition is common and has high mortality rates. Given this context, this study sought to characterize the epidemiological profile of HF in the state of Maranhão between 2020 and 2024. **METHODS:** This is a descriptive, retrospective study with a quantitative approach. The data was collected from the Department of Information Technology of the Unified Health System (DATASUS). We used data on patients aged between 20 and 59, using the following variables: year, age group, gender, region and mortality rate. **RESULTS:** There were 3,701 cases of hospitalization for HF during the study period. February 2022 was the period with the most hospitalizations, with 132 notifications. When gender was analyzed, the rate of men hospitalized with HF was higher, with 2,152 hospitalizations (59.2%), compared to 1,545 female hospitalizations (41.8%). Hospitalizations of people aged between 20 and 29 accounted for 283 cases (7.6%); between 50 and 59 accounted for 1,836 cases (49.6%); between 30 and 39 accounted for 497 cases (13.4%), and between 40 and 49 accounted for 1,085 cases (29.3%). The highest mortality rate from HF was among younger adults aged between 20 and 29 (11.31%), and older adults aged between 50 and 59 (11.0%). Mortality in the 30-39 and 40-49 age groups was 9.66% and 22%, respectively. **CONCLUSION:** The majority of HF patients in the state of Maranhão are men aged between 50 and 59. Although the mortality rate is slightly higher among younger adults aged between 20 and 29. Therefore, screening and encouraging healthy habits are ways of reversing this current scenario.

**156. ADMISSIONS AND DEATHS FROM SPONTANEOUS ABORTION IN THE SOUTHERN MACROREGION OF MARANHÃO**

Eduardo Carlos Almeida Silva Sousa<sup>1</sup>, Beatriz Martins de Almeida<sup>1</sup>, Jayne Oliveira Ramalho Silva<sup>1</sup>, Karolaine Araújo Rodrigues<sup>1</sup>, Arttenalpy dos Santos Lima<sup>2</sup>.

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**INTRODUCTION:** Spontaneous abortion is the natural loss of pregnancy that occurs before the 20th week of gestation, being one of the most common gynecological issues, affecting about 15% of pregnancies, usually within the first 12 weeks. Genetic and non-genetic causes, such as chromosomal abnormalities and sociodemographic factors, respectively, characterize spontaneous abortion, which can pose risks, due to complications, for pregnant individuals and incur high costs for the public health system. In this context, the study aims to characterize hospitalizations and deaths due to spontaneous abortion in the southern macroregion of Maranhão from 2014 to 2023. **METHODS:** This is a descriptive study with a quantitative approach, focused on hospitalizations and deaths due to spontaneous abortion in the southern macroregion of Maranhão, from 2014 to 2023. The data were obtained using the TABNET tool from the Department of Informatics of the Unified Health System (DATASUS), the variables included were number of hospitalizations and deaths per year, age group, race, type of care and costs. **RESULTS:** The southern macro-region of Maranhão, in the period studied, recorded 9792 hospitalizations for spontaneous abortion. The year with the most hospitalizations was 2018 (n = 1250), with a decrease since 2020, when the number of hospitalizations was 1060 and reached 612 in 2023. A higher prevalence was observed in the age group of 20 to 29 years (n = 4592), with emphasis also on women aged 30 to 39, who had a significant number of hospitalizations (n = 2671). With regard to race/color, the majority of affected women identified themselves as mixed race (n = 5861). However, there were many hospitalization records without information about race/color (30.6%). Regarding the type of care, urgency was more frequent than elective care, with 9738 and 92 cases, respectively. The total cost for these services was R\$2,012,427.46. As for deaths, one case of maternal mortality due to complications from spontaneous abortion was recorded, in the age group of 20 to 29 years, in 2023. **CONCLUSION:** In this context, it is clear that spontaneous abortion is an important cause of hospitalization in the southern macro-region of Maranhão, especially among brown women aged 20 to 29. In addition, the greater number of emergency care services highlights the need to improve access to quality care in order to reduce complications associated with spontaneous abortion in the region.

**157. HOSPITALIZATIONS FOR NORMAL DELIVERY WITH PERINEAL LACERATION IN BRAZIL**

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<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** Perineal trauma after vaginal delivery (PV) affects approximately 90% of women. Second-degree perineal ruptures have a significantly higher incidence in primiparous births, occurring in about 40% of cases. These lacerations can have severe consequences, such as chronic pain and urinary and fecal incontinence, impacting the quality of life of affected women. The classification of perineal lacerations is based on the depth of the musculature involved: first-degree lacerations do not involve the perineal muscle, while fourth-degree lacerations rupture the anal sphincter and the underlying rectal mucosa. Thus, the objective of this study was to evaluate the number of hospitalizations for PV with a record of third- or fourth-degree perineal laceration (PF) in Brazil. **METHODS:** This is a quantitative, observational, cross-sectional and retrospective study. The PROADESS platform of the Oswaldo Cruz Foundation (Fiocruz) was used to collect data in the "Safety" dimension, indicator "Obstetric trauma in normal delivery", in the 5 regions of the country, in the period 2008 to 2022. The calculation method was the number of hospitalizations for PV with primary or secondary diagnosis of third- or fourth-degree PF (ICD-10, O70.2 and O70.3). A limitation to the data collected was the inclusion of only hospitalizations and/or procedures paid for by the Unified Health System (SUS). **RESULTS:** In 2022, Brazil recorded 137 hospitalizations for PV with third- or fourth-degree LP records, 125 in the Southeast region. On the other hand, the platform recorded zero third and fourth degree LPs in the North region, 9 in the Northeast, 2 in the South and 1 in the Midwest. In the interval, the Southeast region led the aforementioned indicator in all years. The Northeast showed a wide variation in results, with 85 hospitalizations in 2017, 98 in 2018, 95 in 2019 and 16 in 2020 with a subsequent decrease. **CONCLUSION:** The variation in data in the Northeast, with a peak in hospitalizations in 2018 and a sharp drop in 2020, highlights the need for a more detailed investigation into the factors that influence these fluctuations. The limitation of data to procedures paid for by the Unified Health System (SUS) should be considered when interpreting these results, since it may not reflect the totality of hospitalizations that occurred in the country. In summary, the study underlines the leadership of the Southeast region in the indicator of third and fourth degree PL, pointing to the importance of regional health policies that consider the particularities of each area.

**158. HOSPITALIZATIONS FOR ENDOMETRIOSIS IN MARANHÃO FROM 2018 TO 2023**Marliane Lisboa Soares<sup>1</sup>, Mariana Azevedo Oliveira<sup>1</sup>, João Nogueira Neto<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Endometriosis is a complex and systemic condition that impacts reproduction in various ways. Endometriosis-related infertility is determined by an interaction between different subtypes of the disease, pain, inflammation, changes in pelvic anatomy, adhesions, compromised ovarian reserve and function, as well as impaired endometrial receptivity and the systemic effects of the disease. Although epidemiological data on endometriosis vary greatly due to differences in diagnostic criteria across studies, it is estimated that the disease affects between 5% and 10% of women of reproductive age. This study aims to describe the demographic data of endometriosis and genitourinary system diseases in the female population of Maranhão over 4 years. **METHODS:** This is a descriptive epidemiological study with a quantitative approach, based on data provided by the Department of Informatics of the Unified Health System (DATASUS) regarding hospitalizations for endometriosis between 2018 and 2023, in patients aged 10 to 80 years, in the state of Maranhão (MA). Since these are secondary data, approval from the Ethics Committee was not required. **RESULTS:** Between 2019 and 2023, in the state of Maranhão, approximately 2,020,041.43 women were diagnosed with endometriosis. Of this total of 2,556, the self-declared ethnicity/race was predominantly brown women with n=1,435, followed by yellow n=87 and white n=86. Regarding age groups, the highest incidence is found among girls aged 10 to 14 years, followed by those aged 15 to 19. Furthermore, the age group with the highest hospitalization rate is women aged 40 to 49 years, followed by those aged 39 to 39 years. In terms of the nature of hospital admissions, about n=1,528 were elective and n=1,028 were urgent; with 2023 having the highest number of such admissions, reaching a record of n=630,027.50, followed by 2022 with 530,956.49. **CONCLUSION:** Over the past 4 years, endometriosis has emerged as an increasingly prevalent morbidity, considering the data from 2022 and 2023 and the ratio of elective to urgent hospitalizations shows a small disparity. Another significant finding is the maturity of women, with those over 40 years old being the most affected. Considering ethnicity/race, brown women are the most affected, as they belong to the most socially vulnerable segment of the female population.

**159. HOSPITALIZATIONS FOR LEPROSY AND THE IMPACT OF AGE, RACE/COLOR AND SEX ON SEVERE OUTCOMES IN THE ESTATE OF MARANHÃO, BRAZIL**Emily Vale da Cunha<sup>1</sup>, Lívia Marianne Gonçalves Pinheiro Viana<sup>1</sup>, Livian Damasceno Costa<sup>1</sup>, Maria Eduarda da Silva Fraco<sup>1</sup>, Maria Eduarda Moura Ribeiro Macieira<sup>1</sup>, Isabella Catarina de Carvalho<sup>1</sup>, Lucas Salomão de Sousa Ferreira<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Leprosy is a chronic, infectious disease caused by *Mycobacterium leprae*, characterized by skin lesions and neurological damage that, if left untreated, may result in permanent impairment. Although curable, leprosy can still cause serious complications, leading to hospitalization in the intensive care unit (ICU) or even death. In Brazil, the country with the second-highest number of registered cases globally, the disease continues to challenge the public health system. Therefore, it is important to determine the main factors associated with these outcomes. This study aims to assess the number of hospitalizations caused by leprosy with severe outcomes in the state of Maranhão, factoring in elements such as age, race/ethnicity, and gender. **METHODS:** This cross-sectional study is based on data collected from SIH/SUS, filtering for leprosy hospitalizations between the years 2019 and 2023 in the Brazilian state of Maranhão. We analyzed severe outcomes such as ICU admissions and cases resulting in death, and we also examined links between the cases and variables such as age, race/ethnicity, and gender. Approval from the ethics committee was not necessary, as this study constitutes an analysis of pre-existing data that is publicly available. A p-value  $\leq 0.05$  was considered statistically significant. **RESULTS:** Analysis of the severe outcomes reveals that elderly individuals (age > 65) and black individuals are associated with higher rates of ICU admissions and in-hospital deaths (p-value < 0.05). The study shows that elderly individuals presented a higher relative risk (RR) for ICU admission (2.42 times) and death (6.56 times) compared to younger individuals. Similarly, self-declared black individuals exhibited higher RRs for these severe outcomes (5.54 and 6.58, respectively), indicating a significant disparity in clinical outcomes compared to individuals in other categories. These results align with other studies that highlight compromised immune systems in elderly individuals and social and economic disparities affecting self-declared black individuals in Brazil. **CONCLUSION:** The results indicate that hospital admissions for leprosy among elderly individuals and black individuals deserve more attention, given the susceptibility of these groups to severe outcomes such as ICU admission and death. We hope this study contributes to a better understanding of the epidemiological and hospital characteristics of leprosy and encourages further research on the topic.

**160. HOSPITALIZATIONS FOR SELF-HARM IN MARANHÃO BETWEEN 2010 AND 2012 AND BETWEEN 2020 AND 2022**

Gabrielle Ferreira Barbosa<sup>1</sup>, Carlos Alberto Leite Filho<sup>1</sup>, Júlia Fernanda Aguiar Santos<sup>1</sup>, Ana Gabriela da Silva Nascimento<sup>2</sup>.

<sup>1</sup> Federal University of Maranhão; <sup>2</sup> Faculty of Health Sciences Pitágoras

**INTRODUCTION:** Self-harm is damage committed against oneself intentionally and suicide attempts. These phenomena have a great impact on the quality of life of individuals. Thus, studying this disorder is valid for the correct coping with the problem. This study aims to compare the prevalence of hospitalizations for self-harm from 2010 to 2012 and from 2020 to 2022, observing the possible differences between the two periods, in order to ascertain whether there is an epidemiological change and develop hypotheses for this possible change. **METHODS:** An ecological, cross-sectional and descriptive study was carried out, with analysis carried out in the state of Maranhão, between March 2010 and March 2012 and between March 2020 and March 2022. Data from the Department of Informatics of the Unified Health System were analyzed, organized according to the variables: hospital morbidity due to external causes, place of hospitalization, period, type of care, group of causes, age group, and gender. The data from the periods were evaluated separately for comparative analysis. Since secondary and public domain data were used, the approval of the ethics committee was waived. **RESULTS:** In the periods analyzed, 639 hospitalizations were found in the state, 270 between March 2010 and 2012 and 369 between March 2020 and 2022. In both cases, when restricted to the age group, a higher prevalence was noted between 20 and 39 years old, with 49.62% of cases from 2010 to 2012 and 38.48% of cases from 2020 to 2022. Furthermore, more than 60% of hospitalizations were male in both cases. With the increase of 36.66%, this data is possibly due to the higher notification and diagnoses and the social isolation caused by the pandemic that aggravated or triggered psychological disorders. **CONCLUSION:** This study found that the prevalence of self-harm in Maranhão was higher in men aged between 20 and 39 years. As for the period, it was more prevalent between 2020 and 2022, possibly related to behavioral changes in society in recent years. In addition, it is possible that isolation, uncertainties about the future, and social changes caused by the Covid-19 pandemic have caused a higher incidence of mood disorders, such as stress and anxiety. Further studies will help map data on prevalence and risk profiles, allowing the creation of strategies to mitigate the incidence of cases of self-harm.

**161. HOSPITALIZATIONS FOR SELF-HARM IN MARANHÃO BETWEEN 2010 AND 2012 AND BETWEEN 2020 AND 2022**

Gabrielle Ferreira Barbosa<sup>1</sup>, Carlos Alberto Leite Filho<sup>1</sup>, Júlia Fernanda Aguiar Santos<sup>1</sup>, Ana Gabriela da Silva Nascimento<sup>2</sup>.

<sup>1</sup> Federal University of Maranhão; <sup>2</sup> Faculty of Health Sciences Pitágoras

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**162. ADMISSIONS FOR MENTAL DISORDERS DUE TO ALCOHOL USE IN MARANHÃO, FROM 2014 TO 2023**

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**INTRODUCTION:** The abuse of alcohol and other psychostimulant substances can cause mental and behavioral disorders, due to the action of these drugs on the brain. These changes include an unbalance of neurotransmitters and chronic use is a risk factor for cognitive and psychotic disorders, changes in personality, sleep and anxiety. In this sense, the objective of the research is to characterize the profile of hospitalizations for mental and behavioral disorders caused by alcohol use in the state of Maranhão, between 2014 and 2023. **METHODS:** This is a cross-sectional, observational and analytical study. The research was carried out by collecting data on the platform of the Department of Informatics of the Unified Health System (DATASUS) for the period from 2014 to 2023. The variables used in hospitalizations include: age group, race and sex. **RESULTS:** It was observed that, in the period analyzed, there were 7616 hospitalizations in Maranhão, with emphasis on the capital São Luís (n = 6369), equivalent to 83.6% of cases. The largest portion corresponded to males (n = 6243), 81.9% of the total, white (n = 3431), while women accounted for total (n = 1373) hospitalizations. Regarding the distribution among other races, the brown population (n = 1579) and yellow (n = 193) stood out. The most prevalent age group was between 30 and 34 years old (n = 1133), followed by individuals aged 40 to 44 years old (n = 1064). Furthermore, the notifications are distributed homogeneously between the years analyzed, in a range of 647 cases in 2015 to 790 cases in 2021. The year 2023 was the only year that differed from this pattern, accounting for (n = 1098) hospitalizations. **CONCLUSION:** In view of the above, the population hospitalized for mental disorders due to alcohol use is predominantly male and white, between 30 and 34 years old. Furthermore, it is clear that such disorders are an important cause of hospitalizations in Maranhão.

**163. INTERNATIONAL COLLABORATIONS AND TRENDS IN ANESTHESIOLOGY: A BIBLIOMETRIC ANALYSIS**

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**INTRODUCTION:** Research in anesthesiology in Brazil has significantly grown in recent decades, reflecting the importance of international collaboration. However, the understanding of Brazil's main partners in high-impact scientific publications remains limited. This study uses a bibliometric approach to analyze international collaborations in the top five anesthesiology journals with the highest CiteScore and identify research trends through recent keyword analysis. **METHODS:** Articles from the top five anesthesiology journals with the highest CiteScore from 2013 to 2023 were collected using the Scopus database (Elsevier). The total number of publications, the countries that collaborated the most with Brazil, and the frequency of co-authorship were analyzed. The VOSviewer software was employed to map international collaborations and conduct keyword analysis. **RESULTS:** A total of 411 Brazilian publications were identified in the five journals analyzed. The main international collaborators included the United States, Germany, Italy, the United Kingdom, and France. The keyword analysis highlighted prominent themes such as "pain," "migraine," "chronic pain," "neuropathic pain," and "headache." More recent keywords indicated an increase in topics such as "COVID-19," "mechanical ventilation," and "postoperative complications". **CONCLUSION:** The analysis shows an increase in international collaborations in Brazilian anesthesiology publications, highlighting partnerships with the United States, Germany, Italy, the United Kingdom, and France. The main keywords underscore the areas of greatest interest and development in Brazilian anesthesiology research, while recent topics point to emerging new focuses. Investing in funding programs and encouraging research networks are essential to strengthening scientific production and international collaboration in Brazilian health institutions.

**164. EPIDEMIOLOGICAL INVESTIGATION OF ZIKA VIRUS CASES IN MARANHÃO FROM 2019 TO 2023**

Inácio Venâncio da Silva Neto<sup>1</sup>, Osean Maximilyan Câmara Pereira<sup>1</sup>, Juliano Augustus Fernandes Lima Sousa<sup>1</sup>, Ronney Pablo Araújo Gouveia<sup>1</sup>, Olga Nadimme Silva Rabelo de Araújo<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Zika is a virus transmitted by the bite of the *Aedes aegypti* mosquito. It has this name because it was identified in the Zika forest, in Uganda, Africa. Zika virus infection can be asymptomatic or symptomatic. When symptomatic, it can present a variable clinical picture, from mild and self-limited manifestations, such as symptoms of low fever, headache, arthralgia, asthenia and myalgia, periarticular edema and even neurological complications and congenital malformations. This study aims to outline the epidemiological profile of Zika Virus cases in Maranhão. **METHODS:** This is a descriptive and retrospective study, whose data come from DATASUS and the Notifiable Information and Diseases System (SINAN) from 2019 to 2023 in Maranhão. The following aspects were addressed: municipality with the highest notification, age group, gender, race, and evolution of cases. **RESULTS:** In the period studied, 5616 cases were registered in Maranhão, with emphasis on the municipality of São Luís, which had 1844 notifications of the disease (32.8%), but it is worth highlighting the expressive participation of the municipality of Caxias, with 1384 (24.6%). It was observed that the age group with the highest cases was between 20 and 39 years (28.7%), while the gender variable showed a slight trend for the male group (57.1%). Among the race, the self-declared brown predominates, with 4274 notifications (76.1%). Regarding the evolution of the cases, it was noted that, of the total, 4575 patients (81.5%) were cured, while in 1008 notifications of the disease, they were ignored/blank. **CONCLUSION:** Considering the above, it is determined that, in Maranhão, the infection caused by the Zika virus mainly affects brown men, aged between 20 and 39 years, with high cure rates; however, there are many reports with the information ignored or blank. Therefore, one way to prevent the emergence of new cases would be to promote public policies against the proliferation of the mosquito vector, the *Aedes aegypti*. This can include awareness campaigns about the importance of eliminating breeding sites, improvements in basic sanitation, and the application of larvicides and insecticides in risk areas. In addition, encouraging research and development of vaccines and specific treatments for the Zika virus are also essential measures in the fight against this infection.

**165. LEISHMANIASIS IN MARANHÃO: ANALYSIS OF MORTALITY AND COSTS BETWEEN 2013 AND 2023**

Alexandros Páris De Mesquita Ipácio<sup>1</sup>, Elizabet Taylor Pimenta Weba<sup>1</sup>, Amanda Cristine Silva Sousa<sup>1</sup>, Dantas Sousa Braga<sup>1</sup>, Eslainy Xavier Matos<sup>1</sup>, Marcos Vinicius Soares Silva<sup>1</sup>, Wellyson Da Cunha Araujo Firmo<sup>1</sup>.

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**INTRODUCTION:** Leishmaniasis is an infectious disease caused by protozoa of the genus *Leishmania*, which presents itself in different forms, with Visceral Leishmaniasis (VL) and American Tegumentary Leishmaniasis (ATL) being the most prevalent in Brazil, especially in the state of Maranhão. This disease represents a significant challenge to public health in Maranhão, where precarious socio-economic conditions and disorderly urbanization favour the proliferation of the vector and the spread of the disease. Given this scenario, the aim of this study is to analyze the cost and mortality of Leishmaniasis in Maranhão and relate it to other macro-regions in Brazil, from 2013 to 2023. **METHODS:** This is an epidemiological, descriptive and quantitative study. Data was collected through the Department of Informatics of the Unified Health System, analyzing the variables: number of hospitalizations, average value per hospitalization, deaths and mortality rate. **RESULTS:** During the study period, Maranhão recorded 183 deaths related to Leishmaniasis and 4,061 hospitalizations. This scenario placed Maranhão as the state with the highest number of deaths both in the Northeast macro-region and in the country as a whole. Maranhão's mortality rate from Leishmaniasis was 4.51%, exceeding the rate for the Northeast region (4.05%) and the national rate (3.63%). In terms of average spending per hospitalization due to Leishmaniasis, Maranhão ranked 24th among Brazilian states, ahead of Mato Grosso, Amapá and Acre. The average amount invested in Maranhão per hospitalization was R\$ 427.36, lower than the average for the Northeast (R\$ 512.53) and the national average (R\$ 543.05). **CONCLUSION:** Leishmaniasis in Maranhão indicates an alarming situation in terms of mortality and the allocation of health resources. Despite the investments made, its position in the national spending ranking suggests underfunding in the treatment and management of the disease. This discrepancy in investments may be contributing to the high mortality rate, highlighting the urgent need for a reassessment of public health policies aimed at the disease. It is imperative to establish a combination of efforts in epidemiological surveillance, vector control and health care to reverse this scenario and protect the most vulnerable communities.



**166. AMERICAN TEGUMENTARY LEISHMANIASIS IN THE BAIXADA MARANHENSE: AN EPIDEMIOLOGICAL ANALYSIS**

Juliano Augustus Fernandes Lima Sousa<sup>1</sup>, Lindomar Christian da Trindade Filho<sup>1</sup>, Igor Carvalho Almendra<sup>1</sup>, Inácio Venâncio da Silva Neto<sup>1</sup>, Osean Maximilyan Camara Pereira<sup>1</sup>, Ronney Pablo Araújo<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>.

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**INTRODUCTION:** Cutaneous leishmaniasis (TL) is an infectious, non-contagious disease that causes ulcers on the skin and mucous membranes. The disease is caused by protozoa of the genus *Leishmania*. In Brazil, there are seven species of leishmanias involved in the occurrence of TL cases. The most important are: *Leishmania (Leishmania) amazonensis*, *L. (Viannia) guyanensis* and *L. (V.) braziliensis*. The disease is transmitted to humans by the bite of infected female sandflies (a species of fly), and its main symptom is: lesions on the skin and/or mucous membranes that can be single, multiple, disseminated or diffuse, which have an ulcer-like appearance, with raised borders and granular bottom, usually painless, and are more frequent in the nose, mouth and throat. The objective of this study is to outline the epidemiological profile of cases of tegumentary leishmaniasis in the Baixada Maranhense.

**METHODS:** This is a descriptive and retrospective study, whose data come from DATASUS and the Notifiable Information and Diseases System (SINAN) from 2018 to 2022, in the microregion of Baixada Maranhense. The following aspects were addressed: municipality with the highest notification, age group, gender, race, and evolution of cases. **RESULTS:** In the period studied, 335 cases were recorded in the Baixada Maranhense, with emphasis on the municipality of Pinheiro, which had 96 notifications of the disease (28.6%). It was observed that the age group with the highest cases was between 20 and 39 years old (51%), while the gender variable was emphasized for the male group (72.8%). Among the race, the self-declared brown predominates, with 236 notifications (70.4%). Regarding the evolution of the cases, it was noted that, of the total, 245 patients (73.1%) were cured, while in 73 notifications of the disease, they were ignored/blank. **CONCLUSION:** In view of the results presented, it is determined that American tegumentary leishmaniasis is a pathology with an epidemiological profile of brown men, aged between 20 and 39 years and with low mortality; however, there are many cases ignored or blank. Thus, one way to combat the advance of the pathology would be the implementation of educational campaigns in local communities to inform about American tegumentary leishmaniasis, focusing on the identification of symptoms and the importance of early treatment.

**167. VISCERAL LEISHMANIASIS: EPIDEMIOLOGICAL AND CLINICAL PROFILE IN THE NORTHEAST BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Visceral Leishmaniasis (VL) is an endemic vector-borne disease in northeastern Brazil caused by the protozoan *Leishmania infantum chagasi*, transmitted mainly by the female *Lutzomyia longipalpis*. This work aims to elucidate the clinical and epidemiological profiles of VL in Northeast Brazil from 2018 to 2022 and their patterns. **METHODS:** This is an epidemiological, cross-sectional and analytical study. Secondary data was collected from 2018 to 2022 for the northeast region recorded in the Notifiable Diseases Information System (SINAN), from the IT department of the Unified Health System (DATASUS). The data collected was tabulated in Excel and statistically analyzed using Jamovi software version 2.3.28, with a p-value of <0.01 being significant. Status, race, gender, age, HIV co-infection, evolution and type of entry were analyzed. **RESULTS:** As for the epidemiological profile, between 2018 and 2022, there were 7202 confirmed cases of VL in the Northeast, with 2018 (n=2197; 30.5%) and Maranhão (n=2108; 29.3%; p<.001) being the year and state with the highest number of cases. The most predominant race was brown (n=5680; 78.9%), followed by black (n=560; 7.8%), white (n=548; 7.6%), indigenous (n=65; 0.9%), yellow (n=48; 0.7%) and unknown/blank (n=301; 4.2%) (p=0.035). There was also a prevalence of males (n=5054; 70.2%) compared to females (n=2147; 29.8%) (p=0.016). In terms of age, the majority were aged under 19 (n=5257; 41.1%), followed by 20 to 39 (n=3162; 24.7%), 40 to 59 (n=3006; 23.5%), 60 to 79 (n=1794; 9.3%) and, finally, 80 or over (n=179; 1.4%) (p<.001). As for the clinical profile, cases of HIV co-infection predominated in the 40-59 and 20-39 age groups (respectively n=445; 45% and n=440; 44.5%; p<.001). Progression was mainly characterized by cure (n=4665; 64.7%; p<001), with the prevalent age group being the under-19s (n=2164; 46.4%). Regarding the type of entry, the prevalence was of new cases (n=6368; 88.4%; p<.001), mainly in the under-19 age group (n=2772; 43.5%). **CONCLUSION:** This study elucidated the clinical and epidemiological profile of VL in northeastern Brazil between 2018 and 2022. Based on the data collected, a high incidence of confirmed cases was observed, particularly in the state of Maranhão in 2018, highlighting state failure due to minimal interventions in this area.

**168. LYMPHOMAS, MYELOMAS, AND LEUKEMIAS: DIAGNOSIS-TO-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Tumors of hematopoietic and lymphatic tissue include Hodgkin lymphomas, non-Hodgkin lymphomas, T-cell lymphomas, leukemias, malignant immunoproliferative diseases, multiple myeloma, and plasma cell malignancies. Leukemia is a neoplasm of leukocytes that results in the accumulation of abnormal young cells in the bone marrow. Lymphomas arise from DNA damage in lymphocytes, with non-Hodgkin lymphoma accounting for 90% of lymphatic tumors. Meanwhile, multiple myeloma results from the monoclonal proliferation of plasma cells in the bone marrow, representing about 10% of hematologic neoplasms. This study aims to analyze the evolution of the waiting time for the initiation of treatment after the diagnosis of malignant neoplasms. **METHODS:** The study is a cross-sectional analytical observational study, using data from the DATASUS Oncology Panel for all individuals registered between the years 2019 and 2023. The analysis considers the time interval in days between diagnosis and the first recorded treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) group that classifies these types of malignant tumors (ICDs C81 to C96). We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures since the data are abnormally distributed according to the Shapiro-Wilk test. **RESULTS:** Regarding the dispersion of the median time between diagnosis and first treatment, there was variation between the quartiles. We started with a median of 33 days (IQR: 13 - 83) in 2019 (n = 438 cases), an increase to 35 days (IQR: 13 - 113) in 2020 (n = 425 cases), and a decrease to 32 days (IQR: 14 - 85) in 2021 (n = 414 diagnosed cases). In the following years, the median time remained at 31 days (IQR: 18 - 49) in 2022 and 31 days (IQR: 27 - 43) in 2023, with 511 and 438 patients, respectively. **CONCLUSION:** Despite variations, in relation to the 60-day law, which stipulates treatment initiation within this period, the median waiting time, in all years, was within the deadline. However, the variation in the interquartile range, which reached 100 days in 2020, may indicate that some patients still face significant delays. The concurrent COVID-19 pandemic in 2020 may have contributed to this result.

**169. FAMILIAL PARTIAL LIPODYSTROPHY TYPE 2: A RARE CASE REPORT**

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**INTRODUCTION:** Lipodystrophy is characterized as a group of disorders involving abnormal loss of adipose tissue in certain areas of the body. This deficiency in adipose tissue is linked to metabolic complications such as hepatic steatosis (HS), insulin resistance, diabetes mellitus (DM), dyslipidemia (DLP), and systemic arterial hypertension (SAH). This condition can be acquired or genetic. Among the latter, familial partial lipodystrophy (FPL) stands out as an extremely rare genetic disease. This case report aims to describe a case of FPL type 2 and its complications. The study was approved by the Research Ethics Committee of the University Hospital of the Federal University of Maranhão (CEP-HUUFMA), under opinion No. 4.415.776 and CAAE 38108620.0.0000.5086. **CASE DESCRIPTION:** M.J.V.C., 64 years old, female, from Maranhão. Diagnosed with systemic arterial hypertension (SAH) and type 2 diabetes mellitus (DM) for 31 years. Recent genetic diagnosis of familial partial lipodystrophy (FPL) Type 2, presenting chronic complications associated with DM, in addition to hepatic steatosis, autoimmune hypothyroidism, and dyslipidemia (DLP). Family history of coronary artery disease (CAD), SAH, and DLP; genetic diagnosis of FPL2 in aunts, cousins, and children. Currently taking: Puran T4 50 mcg/day, NPH 40 IU/day, Glifage XR 1 g/day, Pioglitazone 30 mg/day, Rosuvastatin 20 mg/day, Ezetimibe 10 mg/day, Enalapril 40 mg/day, Carvedilol 12.5 mg/day, and ASA 100 mg/day. Engages in regular physical exercise and follows an appropriate diet. Physical examination: BMI 22.66 kg/m<sup>2</sup>; BP 130 x 70 mmHg; absence of subcutaneous fat, venous enlargement, and prominence of skeletal muscle, along with mild hepatomegaly. Laboratory tests: HbA1c: 6.4%, C-peptide: 0.97 ng/mL, leptin: 1.6 ng/mL, TSH: 1.9 µIU/mL, ALP: 168 U/L, GGT: 473 U/L, ALT: 48 U/L, AST: 38 U/L, albuminuria: 18, creatinine: 0.94 mg/dL, estimated glucose disposal rate (eGDR): 6.67. FIB-4: 1.32. MELD: 6. Imaging studies confirm hepatic, coronary, carotid, and retinal impairment. Genetic testing: mutation in the LMNA gene - variant chr1:156.136.984 C>T. **CONCLUSION:** This case highlights the complications, such as hypertension and diabetes, that underscore the delicate condition of a patient with FPL. The data indicate impairment of hepatic and cardiovascular function, emphasizing the connection between FPL and other metabolic conditions. Despite adherence to treatment, the patient faces a challenging clinical scenario requiring ongoing monitoring. Management of lipodystrophy should involve controlling existing complications and preventing new ones, given its complexity, making knowledge about the disease essential.

**170. CONGENITAL MALFORMATIONS OF THE CIRCULATORY SYSTEM IN MARANHÃO, FROM 2014 A 2023**Beatriz Martins de Almeida<sup>1</sup>, Maria Elisa Gamas da Silva<sup>1</sup>, Arttenalpy dos Santos Lima<sup>2</sup>.<sup>1</sup> Federal University of Maranhão; <sup>2</sup> Euro-American University of Brasília

**INTRODUCTION:** Congenital malformations (CMs) are characterized as changes that encompass the functional, neuromotor and morphological part of the human being, in which malformations and deformations occur during embryonic development, which progress to birth and may be present in the most advanced stages of life. MCs are one of the main causes of deaths in newborns and children. Furthermore, they contribute to the individual's long-term disability, as it impacts on a personal, social and family level. In Brazil, diseases of the circulatory system are considered an important cause of death in the general population. From this perspective, congenital malformations of the circulatory system have the highest mortality rate among CMs. In front of this, the work aims to characterize, from 2014 to 2023, hospitalizations and deaths due to congenital malformations in the circulatory system in Maranhão. **METHODS:** This is a cross-sectional, observational and analytical study. The research was carried out by collecting data made available by the platform of the Department of Informatics of the Unified Health System (DATASUS) for the period from 2014 to 2023. The variables used include age group, sex and race. **RESULTS:** There were 3879 hospitalizations due to congenital malformations in the circulatory system in Maranhão, during the period studied, with a predominance in the year 2022 (n=520). Furthermore, the most affected age group was children under 1 year old (n=1600) and females were the most affected (50.47%). The most prevalent race was the brown, corresponding to 24.92% of hospitalized patients, however, 71.87% of hospitalizations remained without information. As for the total number of deaths, there were 427, with a predominance in the year 2022 (n=60). The age group with the highest number of deaths was children under 1 year of age (n=290), equivalent to 58.35% of the total deaths and affecting the greatest number of male individuals (n=236). Regarding the analysis of race, it was shown that 24.59% of deaths affected brown people, however, data without information on race prevailed over brown color (n=311). Therefore, the mortality rate compared to the number of hospitalizations reached 11%. **CONCLUSION:** Given this scenario, it becomes evident that congenital malformations constitute an important cause of hospitalization and mortality in the state of Maranhão, especially for males under 1 year of age.

**171. MANAGEMENT OF POLYPHARMACY IN THE ELDERY IN PRIMARY HEALTH CARE**Milena de Sousa Amaral<sup>1</sup>, Jemima Laureano Marques<sup>1</sup>, Ana Karlla dos Santos Sousa Bezerra<sup>1</sup>, Karolaine Araújo Rodrigues<sup>1</sup>, Pedro Washington Santana de Carvalho Junior<sup>1</sup>, Pâmella Maria Ferreira Cantanhêde<sup>1</sup>, Bruna Pereira Carvalho Sirqueira<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The increasing aging of the Brazilian population has resulted in an epidemiological transition with a higher prevalence of chronic non-communicable diseases (NCDs) in the population compared to communicable diseases. This changing scenario has resulted in an increase in chronic medication use and polymorbidities in old age, increasing cases of polypharmacy in the elderly. The review aims to evaluate the management of NCDs and polypharmacy by Primary Health Care (PHC). **METHODS:** This is an integrative literature review with data collection based on the descriptors "Polypharmacy", "Elderly" and "Primary Care" in the Scielo and Pubmed databases, in July 2024. The inclusion criteria were: articles with primary studies, in English and Portuguese, published in the last 10 years and that addressed the management of polypharmacy in elderly people in PHC. **RESULTS:** The prevalence of polypharmacy among the elderly varies significantly, with an average use of 3.8 to 5.8 medications per individual. In Brazil, it affects 32% of the elderly, increasing to 85% in those with diabetes mellitus. Polypharmacy in the elderly is a multifactorial phenomenon associated with factors such as: female gender; increasing age, prevalent in individuals aged 80 years or older; negative self-rated health; and excess weight, recurrent in 25% of overweight or obese elderly individuals. In addition, it is correlated with hypertension, heart disease, circulatory and osteoarticular disorders. The medications most used by the elderly include those for the cardiovascular system, gastrointestinal tract and metabolism, and nervous system. It was noted that polypharmacy increases by 2.69 times the possibility of prescribing inappropriate medications and by 2.07 times the risk of worsening sleep quality. Regarding clinical understanding, there was an association with chronic diseases and inappropriate prescription, which configures drug iatrogenesis. **CONCLUSION:** The management of polypharmacy in elderly individuals in PHC is complex and aggravated by the increase in NCDs in the elderly Brazilian population. It is evident that polypharmacy is influenced by demographic, clinical and social factors, with a high prevalence especially among elderly individuals with comorbidities. PHC is crucial in identifying and managing polypharmacy, requiring integrated and personalized strategies, such as rational prescribing and a patient-centered approach, to reduce the risks associated with multiple medication use.

**172. MAINTAINING ETHICS AND PRIVACY IN DIGITAL RADIOLOGY: CHALLENGES IN DATA PROTECTION**Isabella Aragão Pachêco<sup>1</sup>, Ana Clara Freitas Martins Costa<sup>1</sup>, Michelle Aragão Pachêco Sant'Anna<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** The acquisition of digital images in radiology, due to the use of more efficient sensors, promotes higher quality in a reduced time. After capture, these images are acquired and stored in software called PACS, where it is possible to adjust brightness, latitude, and contrast without the need to repeat the exam, ensuring greater safety and agility for physicians when providing reports. However, besides the high cost, there are challenges regarding the security of the acquired patient data and privacy. This study aims to discuss the challenges related to ethics and privacy in digital radiology, with an emphasis on protecting patient data, identifying the main ethical issues involved, and the vulnerabilities and risks associated with information security. **METHODS:** A review of the available literature was conducted on articles published between 2019 and 2024 in the PubMed database. Exclusion criteria were applied to articles that were repetitive in journals and those not directly related to the research. **RESULTS:** The General Data Protection Law (LGPD) will regulate how personal data should be handled in Brazil. To comply with the law, it is necessary to maintain the doctor-patient relationship by ensuring the patient's privacy and the integrity of the data to prevent it from being altered or corrupted. The main methods to ensure this include using encryption so that only authorized individuals can access the data, as well as implementing strict access control systems and multifactor authentication. It is crucial to train professionals and raise awareness about the proper handling of sensitive information, as well as maintaining access logs with all actions performed in the system. Lastly, ensuring network security to prevent cyber threats is indispensable; for this, it is possible to adopt the use of firewalls, patch updates, and intrusion detection systems (IDS/IPS). **CONCLUSION:** In this context, maintaining ethics and privacy in digital radiology is essential to ensure compliance with the LGPD and the preservation of doctor-patient trust. Therefore, the implementation of security measures, such as controlling access to images, encryption, network protection, and training healthcare professionals, is of utmost importance to effectively address the critical privacy and security challenges present in the internet age.

**173. MORBIDITY AND MORTALITY FROM GASTRIC CANCER: MARANHÃO AND THE FEDERAL DISTRICT BETWEEN 2018 AND 2021**Layza Hellen Fernandes Menezes<sup>1</sup>, Italo Kauan Ribeiro de Carvalho Martins<sup>1</sup>, Mariana Chaves Mendonça<sup>1</sup>, Pedro Marcondes Bezerra Fernandes<sup>1</sup>, Bruno Mileno Magalhães de Carvalho<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The risk of death for a person after receiving a cancer diagnosis in Brazil is significantly higher in regions with lower Human Development Index (HDI) compared to those with higher indices. Maranhão (MA) is the state with the highest percentage of the population in poverty, a scenario that contributes to the elevated mortality rate from malignant neoplasms overall. The objective of this study is to describe the morbidity and mortality rates from gastric cancer (GC) in MA and the Federal District (FD), comparing them with their respective HDI. **METHODS:** This is an ecological study on the epidemiology of malignant gastric neoplasia, for which mortality and morbidity data were collected from the Hospital Information System of the Unified Health System (SIH/SUS). The variables studied were sex, age group, and color/race. The prevalence of these variables was calculated for each state in that year, followed by statistical analysis using Excel 2019. **RESULTS:** A total of 1,534 deaths due to gastric cancer (GC) were recorded in the state of Maranhão (MA) between 2018 and 2021, with 63.75% being male, primarily in the age group of 60 to 79 years (51.1%), and of mixed color/race (63.36%). In the Federal District (FD), there were 851 deaths from the same cause during the same period, with the majority in the age group of 60 years or older (68.15%), mixed race (44.65%), and male (62.75%). The mortality rate was higher in MA compared to FD in all years. From 2018 to 2021, there were 2,955 hospitalizations due to GC in MA and 2,152 hospitalizations in FD, indicating a rate of approximately 4.3 hospitalizations in Maranhão and 7.6 hospitalizations in FD, both per 10,000 inhabitants during the same period. **CONCLUSION:** This study suggests a possible influence of the Human Development Index (HDI) on morbidity and mortality rates from malignant gastric neoplasms among the studied locations, considering that this cancer has environmental influences (water with high nitrate concentrations from artesian wells and contamination by *Helicobacter pylori* due to poor basic sanitation). Although morbidity is higher in the Federal District (FD), mortality is greater in Maranhão (MA), indicating that access to early diagnosis and treatment can also affect cure rates. The epidemiological profile is primarily composed of mixed-race men over 60 years old. More in-depth statistical analyses are needed to relate social vulnerability to the morbidity and mortality rates from malignant gastric neoplasms between these two states.

**174. MORBIDITY AND MORTALITY FROM TRAUMATIC BRAIN INJURY IN MARANHÃO FROM 2020 TO 2023**

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**INTRODUCTION:** Traumatic brain injury (TBI) refers to any injury to the scalp, skull, meninges, or brain caused by external force. In Maranhão, it is a serious public health issue, resulting from traffic accidents, falls, and assaults, affecting both young and elderly populations. TBI can cause cognitive, motor, and neuropsychiatric disorders, impacting the quality of life. The severity of outcomes depends on the nature of the trauma, pre-existing conditions, and the effectiveness of management. This study aims to analyze the incidence and mortality of TBI in Maranhão between 2020 and 2023, providing insights into the epidemiological patterns and clinical outcomes of this condition in the state. **METHODS:** This is a retrospective epidemiological study on TBI morbidity and mortality in Maranhão, using data from the SUS Hospital Information System (SIH/SUS) from 2020 to 2023, considering mortality rates and deaths according to municipality, gender, age group, and race or ethnicity. **RESULTS:** The analysis of SIH/SUS data reveals an average mortality rate from TBI of 7.08 in the municipalities of Maranhão, with the highest rates in Barra do Corda (16.67), Coroatá (14.29), and Bacabal (13.23). The lowest rates were in Timbiras (1.27) and São João dos Patos (1.37). Between 2020 and 2023, there were 1,196 deaths from TBI in Maranhão, with São Luís leading (348 cases), followed by Imperatriz (215) and Presidente Dutra (188). Men represented 82% of the cases (981). Indigenous individuals (12.5), whites (8.41), and mixed-race individuals (5.73) had the highest mortality rates, although 667 deaths did not report race. The elderly had the highest mortality: ages 70 to 79 years (12.84), 80+ years (11.18), and 50 to 59 years (9.61). The lowest rates were observed in children: 1 to 4 years (1.85), under 1 year (2.89), and 5 to 9 years (3.10). However, the age groups 20 to 29 years (224), 30 to 39 years (216), and 40 to 49 years (152) recorded the most deaths. **CONCLUSION:** The data analysis reveals distinct patterns of TBI mortality in Maranhão between 2020 and 2023. Urban regions like São Luís and Imperatriz recorded the most absolute deaths, while rural areas had higher rates. Mortality was higher among men and young adults, especially those aged 20 to 29, suggesting greater exposure to trauma. The elderly also had high mortality, highlighting their vulnerability. Therefore, TBI morbidity and mortality in Maranhão are significant and require broad preventive measures, especially for young adult males.

**175. DENGUE MORBIDITY AND MORTALITY IN MARANHÃO: A DESCRIPTIVE REVIEW**

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**INTRODUCTION:** Dengue is an urban arbovirus transmitted by the *Aedes aegypti* mosquito. Its symptoms range from mild febrile illness to neurological febrile syndromes and hemorrhages, which can lead to death. In Maranhão, the disease has a high incidence, affecting public health with adverse effects and significant social losses. The study aimed to analyze the morbidity and mortality profile of dengue in Maranhão between 2019 and 2023, presenting an overview for public health policies on the disease in the state. **METHODS:** This is a descriptive, retrospective epidemiological study, carried out from the collection and analysis of data from the Information System for Diseases and Notification (SINAN) and the Hospital Information Service (SIH) of the Department of Informatics of the Unified Health System of Brazil (DATASUS). The variables selected for the study were: sex, age, ethnicity, education, region, hospitalization and evolution. The theoretical framework was collected from virtual libraries and databases Scientific Electronic Library Online (SciELO), PubMed and Google Scholar, including full articles and reviews in Portuguese and English related to the topic. Descriptive statistics were used to analyze the data. **RESULTS:** 21,900 cases of dengue were reported in Maranhão during the period in question, with the years 2019 (n=5,725; 26.14%) and 2021 (n=1,368; 6.25%) standing out. In the time frame of the study, there was a higher frequency of females (n=11,480; 52.42%), aged between 20-39 years (n=7,402; 33.8%), of brown ethnicity (n=17,049; 77.85%), with high school education (n=4,284; 19.56%); with higher detection coefficients in the epidemiological regions of São Luís, Balsas and Barra do Corda. Of the total number of cases, (n=34; 0.16%) died and within this group, men were the majority (n=19; 56%). The majority of cases progressed to cure and discharge (n=15,902; 72.61%) and in (n=4,452; 20.33%) with hospitalization. Less than 1% of hospitalized cases died. The average length of stay for classic and hemorrhagic dengue was 3 and 5 days, respectively. **CONCLUSION:** There was a low case fatality rate and a high rate of progression to cure, highlighting the under-reporting and under-recording of deaths influenced by COVID-19. Furthermore, the morbidity and mortality profile of dengue allows the implementation of public policies with prophylactic, diagnostic and care actions, with the aim of reducing the number of cases and deaths, with a consequent improvement in the quality of life of the population of Maranhão.

**176. HOSPITAL MORBIDITY AND MORTALITY IN CASES OF SKULL AND FACIAL BONE FRACTURES FROM 2020 TO 2023**

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**INTRODUCTION:** Trauma is a serious and expanding global issue, being considered a pandemic disease. Facial and skull trauma can be considered one of the most aggressive traumas due to possible emotional damage and sequelae, in addition to the economic impact that such situations cause in a health system. Therefore, due to the relevance and severity of this topic, the objective of this study is to analyze the morbidity and mortality of trauma to facial bones and skulls from 2020 to 2023. **METHODS:** This is a descriptive epidemiological study, with a quantitative approach, carried out by collecting data at the Department of Information and Informatics of the Unified Health System (DATASUS), in patients aged less than 1 year old to patients over 80 years old in the period from 2020 to 2023, in Maranhão. As these were secondary data, approval from the Ethics Committee was not required. The variables used were: age group, year of care, deaths and mortality rate. **RESULTS:** In the period from 2020 to 2023, 711 deaths were recorded due to fractures of the skull and facial bones in Brazil. Most of these deaths occurred between 20 and 29 years old, which represents 19.69% (n=140) of the total cases. The total mortality rate during this period was 0.60%. Among the youngest age groups, there was 1 death in the 5 to 9 age group, representing a mortality rate of 0.05%, 6 deaths in the 10 to 14 year age group (0.24%) and 31 deaths between 15 and 19 years (0.28%). In adult age groups, the mortality rate gradually increased. The 30 to 39 year old group recorded 113 deaths (0.43%), and the 40 to 49 year old group recorded 119 deaths (0.63%). Individuals aged 50 to 59 years had a mortality rate of 0.94% with 106 deaths. The age group of 60 to 69 years old showed 76 deaths (1.34%), the age group of 70 to 79 years old, 65 deaths (2.88%) and the age group of 80 years old or more had 48 deaths, with a mortality rate of 5.03%. **CONCLUSION:** Data analysis confirmed the severity of head and facial bone injuries. The age group of 80 years or more stands out with the highest mortality. Furthermore, the death curve follows a progressive increase in the age group. In short, measures must be developed to avoid such traumas through safety measures, especially in the adult age group.

**177. MORBIDITY AND MORTALITY DUE TO CHRONIC RHEUMATIC HEART DISEASE IN THE STATE OF MARANHÃO, 2014 TO 2023**

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**INTRODUCTION:** Chronic rheumatic heart disease is the main clinical manifestation resulting from rheumatic fever, caused by infection with group A beta-hemolytic Streptococcus. This condition is characterized by fibrosis and valve calcification, being responsible for a large part of valvular heart surgeries. Thus, the present study aims to analyze the epidemiological profile of hospitalizations for chronic rheumatic heart disease in the state of Maranhão from 2014 to 2023. **METHODS:** It consists of an epidemiological, descriptive, retrospective study, with a quantitative approach, based on hospitalizations of patients with chronic rheumatic heart disease. Data were collected from the SUS Hospital Information System in April 2024. Quantitative variables were described by absolute and relative frequencies. **RESULTS:** During the last decade, 1,266 Hospital Admission Authorizations (AIH) related to chronic rheumatic heart disease were registered in the state of Maranhão, of which 866 (68.4%) were elective and 400 (31.6%) were urgent. Regarding gender, 705 (55.7%) of those affected by the disease were women and 561 (44.3%) were men. Among the total number of patients, 50.4% were between 30 and 59 years old, being manifested in all age ranges analyzed. The year of highest incidence was 2022, with 180 (14.2%) cases registered. From 2014 to 2020, there was an average of 5 deaths per year, while between 2021 and 2023, this average increased to 16 deaths per year, corresponding to 57.8% of deaths in the decade in the last three years. The fatality rate was 6.5%, being higher among male patients (53.0%). Among the cities with the highest incidence, the capital São Luís stands out, with 447 (35.3%) hospitalizations for AIH, followed by São José de Ribamar, with 59 (4.6%), Paço do Lumiar, with 38 (3.0%), and Imperatriz, with 37 (2.9%). The total cost was R\$10,398,790.54 over the 10 years. **CONCLUSION:** Over the decade analyzed, hospitalizations for chronic rheumatic heart disease in Maranhão showed significant variations, influenced by factors such as available financial resources, quality of health services and external impacts. The temporal analysis revealed patterns and trends that can guide the formulation of strategies for planning and improving health services in the region.

**178. MORBIDITY AND MORTALITY BY AGE GROUP IN SEPTICEMIA CASES IN MARANHÃO FROM 2020 TO 2023**

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**INTRODUCTION:** Despite advances in the treatment of infections caused by various pathogens, septicemia remains one of the leading causes of morbidity and mortality in intensive care units. Sepsis triggers an intense inflammatory response that includes cytokine activation, nitric oxide production, and free oxygen radicals, as well as interference with the coagulation process, which can lead to multiple organ failure. The prognosis depends on the etiological agent and the presence of pre-existing comorbidities. Thus, the objective of this study was to describe the morbidity and mortality rates of septicemia by age group in Maranhão. **METHODS:** This is a retrospective epidemiological study on the morbidity and mortality rates of septicemia in the state of Maranhão, using data from the Hospital Information System of SUS (SIH/SUS) from 2020 to 2023, according to age group. The variables used were deaths, mortality rate, and average length of hospital stay. **RESULTS:** The morbidity and mortality rate for septicemia cases was 44.2% (n = 2,952) during the analyzed period, out of a total of 6,678 cases. The rates varied according to age group, being lower in children under 1 year (28.22%) and in those aged 1 to 9 years (14.72%), and progressively increasing with age. Individuals aged 50 to 59 years had a rate of 51.64%, and those aged 60 to 69 years had a rate of 53.93%. The highest rates were observed in individuals aged 70 to 79 years (56.88%) and in elderly individuals aged 80 years or more (61.47%). The length of hospital stay varied from 9.3 days in individuals aged 80 or more to 14.8 days in those under 1 year. **CONCLUSION:** Therefore, the study highlights a higher prevalence of septicemia-related deaths among the elderly, with a progressively higher mortality rate in older age groups. Additionally, it is noted that the high morbidity and mortality are associated with the presence of comorbidities and greater immunological vulnerability in older patients. The variability in hospital stay duration across different age groups also underscores the complexity of clinical management of the condition, especially in extreme age groups. In this context, it is essential to discuss, within the hospital setting, the importance of early identification and treatment of septicemia, as well as the implementation of prevention strategies targeted at high-risk groups to improve patient prognosis.

**179. MORBIMORTALITY BY EMERGENCY INTRACRANIAL HEMORRHAGE IN MARANHÃO**

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**INTRODUCTION:** Intracranial hemorrhage (ICH) is defined as brain damage resulting from acute bleeding from the vessels responsible for irrigating the brain's parenchyma. The symptoms presented by patients affected by the condition range from headache, convulsions, focal neurological deficits to a lowered level of consciousness. This study aims to analyze ICH morbimortality in Maranhão between 2020 and 2023, evaluating the epidemiological profile and specific mortality by variable in the state. **METHODS:** This is a retrospective epidemiological study of morbimortality from urgent ICH in Maranhão, using data from the SUS Hospital Information System (SIH/SUS), from 2020 to 2023, according to death and mortality rates, whose variables used were gender, color or race, age group and city. **RESULTS:** In the period studied, a total of 1172 deaths from ICH were recorded in Maranhão, with a total mortality rate of 23,36%. The majority occurred in 2022, equivalent to 24,06% (n=282), although the highest mortality rate occurred in 2020 (25.58%). Males were the most affected, with 54.35% (n=637) of the victims, but the mortality rate was higher among females (23.69%). The brown population was the most affected, with 34.12% (n=400) of deaths and the highest mortality rate (24.46%). In terms of age group, the highest incidence was among patients aged 60 to 69, with 20.47% (n=240), and the highest mortality rate was among those aged 80 or over (35.59%). In terms of spatial division, São Luís, Imperatriz and Presidente Dutra led the way, with 43.08% (n=505), 21.58% (n=253) and 9.64% (n=113) of deaths, respectively. **CONCLUSION:** In the last five years, there has been a high mortality rate from intracranial hemorrhage in Maranhão, with a peak in deaths in 2022. Men and brown individuals were the most affected, with a significant prevalence among people aged 60 to 69. The regions of São Luís, Imperatriz and Presidente Dutra had the highest number of cases. The mortality rate was highest among women, brown individuals and the elderly aged 80 and over, being 2020 the year with the highest rate. This emphasizes the urgency of preventive interventions and improvements in emergency care protocols to reduce the incidence and mortality from intracranial hemorrhage in the state.

**180. MORBIDITY AND MORTALITY DUE TO MALIGNANT BRAIN NEOPLASMS IN MARANHÃO FROM 2014 TO 2023**

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**INTRODUCTION:** The intracranial cellular content is not limited to neurons. There is a wide range of cells that contribute to brain homeostasis and protection, such as glial, ependymal, and endothelial cells. An aggressive tumor that arises from abnormal brain cells is referred to as a Malignant Brain Neoplasm (MBN). The main types include gliomas, malignant meningiomas, medulloblastomas, and primary central nervous system lymphomas. These tumors pose challenges in diagnosis, treatment, and prognosis due to their delicate location and the complexity of brain tissue. The objective of this study is to investigate morbidity and mortality due to MBN in the state of Maranhão over the past decade. **METHODS:** A descriptive, retrospective epidemiological study was conducted using data obtained from the Hospital Information System of SUS (SIH/SUS) through the platform of the Department of Informatics of the Unified Health System (DATASUS). The variables of interest used for analysis were: number of hospitalizations, Malignant Brain Neoplasms ICD 10 (C71), age group, deaths, sex, ethnicity, and days of hospitalization from January 2014 to December 2023. Google Sheets was used for data analysis and tabulation. **RESULTS:** A total of 1,386 hospitalizations for MBN were recorded in Maranhão between 2014 and 2023, with an average of 138.6 per year ( $\pm 44.84$ ). The most affected age group was 1 to 9 years, with 298 cases (21.5%), and males were the most impacted, accounting for 748 cases (53.93%). Regarding ethnicity, 656 hospitalized individuals were classified as mixed-race (47.33%), followed by 542 (39.1%) with no recorded ethnicity. The total number of hospitalization days amounted to 17,373, with an average of 1,737.3 days per year. Individuals aged 5 to 9 years represented the majority, with 2,285 days (13.15%), averaging 228.5 days per year. Out of the total hospitalizations, 353 deaths due to MBN occurred, representing an average of 35.3 deaths per year and yielding a mortality rate of 25.47 per 100 individuals. Moreover, 183 (51.84%) of the deaths occurred among males and 170 (48.16%) among females. The age group with the highest number of deaths was 60 to 69 years, with 75 deaths (37.10%). **CONCLUSION:** This study reveals that, over the past decade, children represented the majority in terms of hospital morbidity, mixed-race individuals were the most frequently hospitalized, and the mortality rate was 25.47%, with most deaths occurring among the elderly. The data highlight the need for special attention to these vulnerable groups and greater investment in epidemiological health studies.

**181. STROKE MORTALITY IN MARANHÃO BETWEEN 2013 AND 2023**

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**INTRODUCTION:** Cerebrovascular Accident (CVA) is characterized by an alteration in cerebral perfusion, resulting from the blockage or rupture of blood vessels that supply the brain. In Brazil, stroke is the second leading cause of mortality and the main cause of chronic disability, representing a serious public health problem that affects millions of people every year. Given this scenario, the aim of this study is to analyze the epidemiological profile of the occurrence of strokes in the state of Maranhão between 2013 and 2023. **METHODS:** This is a retrospective, descriptive and quantitative study. Data was collected using the Hospital Information System (SIH/SUS), via TABNET, analyzing the variables: number of hospitalizations, deaths, gender, color/race and age group. **RESULTS:** During the period analyzed, 50,249 hospitalizations and 7,680 stroke-related deaths were recorded in Maranhão, representing 10.28% of the total in the Northeast region. The municipalities with the highest hospitalization and mortality rates were São Luís, Imperatriz and Santa Inês. The demographic analysis revealed a predominance of males, with 52.72% of hospitalizations and 51.31% of deaths occurring in this group. The 60-79 age group showed the highest prevalence, corresponding to approximately 36.64% of hospitalizations and 48.25% of deaths. With regard to color/race, there was a predominance of brown patients, who accounted for around 48.08% of admissions and 39.62% of deaths. In addition, an average annual growth rate of 2.77% in hospitalizations was identified between 2013 and 2019, with an intensification of this increase in the years following the COVID-19 pandemic, whose average value was 13.2% between 2020 and 2023. **CONCLUSION:** Epidemiological data indicate that stroke has a high incidence of hospitalizations and mortality in Maranhão, with a notable prevalence among brown men aged 60 and over. In addition, there is evidence to suggest a correlation between the COVID-19 pandemic and the increase in stroke registrations in the state. These findings highlight the urgency of implementing effective public policies aimed at the prevention and treatment of stroke, emphasizing the control of modifiable risk factors and the promotion of healthy habits in the population.



**182. APANCREATIC CANCER MORTALITY IN MARANHÃO FROM 2000 TO 2022**

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**INTRODUCTION:** Pancreatic cancer is a malignant neoplasm that usually has no symptoms in the early stages and has a high mortality rate due to its aggressive behavior and difficult detection. However, only 20% of patients diagnosed can undergo surgical procedures, which constitute the only form of curative treatment available until then, such as pancreatectomy and biliodigestive anastomosis. This type of tumor represents 2% of all types of cancer diagnosed and is responsible for 4% of total deaths in Brazil due to this disease. Thus, the present study aims to evaluate data related to pancreatic cancer mortality in Maranhão from 2000 to 2022. **METHODS:** This is an epidemiological, cross-sectional, retrospective, descriptive and quantitative study, with data collected from the Department of Informatics of the Unified Health System (DATASUS) on pancreatic cancer mortality in the state of Maranhão from 2000 to 2022. The variables analyzed were "year", "age group", "sex", "race", "schooling", "place of occurrence" and "marital status". **RESULTS:** A total of 2161 deaths from pancreatic cancer were recorded in Maranhão over the period analyzed, with 2020 being the year with the highest number of occurrences (n = 166), representing 7.68% of the total, followed by 2022 (n = 163) and 2021 (n = 153). Regarding the age group, the 60 to 69 age group predominated (n = 587), with 27.16% of the total, followed by the 70 to 79 age group (n = 563) and the 50 to 59 age group (n = 383). In terms of gender, 50.2% of deaths were female (n=1085) and 49.8% (n=1076) were male. Brown people and individuals with no schooling predominated, with about 60% (n=1293) and 546 individuals, respectively. Approximately 70% of deaths were registered in hospitals (n=1518), and approximately 28% (n=594) at home. Finally, with regard to marital status, the majority were married people (n=978), followed by single people (n=444) and widowers (n=390), with legally separated individuals having the lowest number of occurrences (n=88). **CONCLUSION:** The study shows that pancreatic cancer mortality is prevalent among brown people, married individuals, men, less educated people and those aged 60 years or older, probably as a result of diagnosis at a locally advanced or metastatic stage. The increase in deaths in 2020 may be associated with a decrease in cancer screening because of the pandemic. The higher rate of deaths in hospitals is due to prolonged hospitalizations.

**183. MORTALITY DUE TO GALLBLADER CANCER IN MARANHÃO FROM 2000 TO 2022**

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**INTRODUCTION:** Gallbladder cancer is a rare and lethal malignant neoplasm, accounting for approximately 1.7% of all cancer deaths, with 220,000 new cases diagnosed annually. Associated risk factors include, for example, obesity, personal or family history of gallstones and gallbladder inflammation. The asymptomatic nature of the early stage of this cancer and its propensity for early and rapid metastasis mean that most cases are diagnosed late, contributing to the poor prognosis of the disease. Thus, the present study aims to evaluate data related to mortality due to gallbladder cancer in Maranhão from 2000 to 2022. **METHODS:** This is an epidemiological, cross-sectional, retrospective, descriptive, quantitative study, with data collection at the Department of Information Technology of the Unified Health System (DATASUS) on mortality due to gallbladder cancer in the state of Maranhão from 2000 to 2022. The variables analyzed were "year", "age group", "sex", "education", "race", "place of occurrence" and "marital status". **RESULTS:** A total of 396 cases of deaths from gallbladder cancer were recorded in Maranhão during the analyzed period, with 2021 (n = 32) being the year with the highest number of cases and 2000 (n = 7) being the lowest. Regarding age group, the 60 to 69 age group predominated, accounting for approximately 29% of deaths (n=114). In terms of gender, 74% (n=293) of deaths occurred in females and 26% (n=103) in males. Individuals with no education (n=109) and of mixed race (n=223) prevailed. Regarding place of death, approximately 72% (n=284) occurred in hospital and 26% (n=102) at home. Finally, with regard to marital status, the majority were married people (n=191), followed by single people (n=86) and widowers (n=63), with legally separated individuals accounting for the smallest number of occurrences (n=14). **CONCLUSION:** It is concluded that mortality from gallbladder cancer is prevalent in female individuals, of mixed race, with no education, married and in the age group of 60 to 69 years. The prevalence in this age group and in females is related to the risk factors associated with the aging of the population and the greater predisposition to gallstones, respectively. It was also identified that, in addition to the majority of deaths having occurred in the hospital environment, the total number of deaths was more expressive in the pandemic and post-pandemic context, possibly due to the reduction in access to screening tests, which leads to late diagnosis.

**184. MORTALITY FROM CIRCULATORY DISEASES AMONG INDIGENOUS PEOPLES IN THE STATE OF MARANHÃO (2013-2022)**

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**INTRODUCTION:** Noncommunicable diseases (NCDs) are the leading causes of death worldwide, especially circulatory system diseases. In Brazil, regional inequalities, insufficient funding, and limited access to healthcare worsen the situation, making heart diseases the primary cause of overall mortality and one of the fastest-growing causes of death among Indigenous peoples due to the urbanization of this ethnicity. Aggravating factors complicate the logistical management of these diseases, which require continuous medical care and health promotion actions in hard-to-reach regions. The present study aimed to analyze the distribution of deaths from circulatory diseases among Indigenous peoples in Maranhão between 2013 and 2022. **METHODS:** This is a descriptive and ecological study with a spatial distribution analysis, covering deaths from circulatory system diseases in the Indigenous population between 2013 and 2022, obtained from the Mortality Information System (SIM). The unit of analysis was the state of Maranhão. Data were collected from the SUS Department of Informatics (DATASUS) and IBGE, considering the following variables: year of death, location, sex, age group, and race/color. **RESULTS:** During the analyzed period, a total of 371 deaths were recorded, with 2022 (n=50) being the year with the most deaths, showing a 100% increase compared to 2013. The Barra do Corda health region had the highest number of deaths (n=168), with peaks in 2017 (n=23) and 2022 (n=21). Ischemic heart diseases and cerebrovascular diseases were the most frequent causes of death (30.7% and 30.2%, respectively). Males accounted for 197 deaths, with a notable peak in 2022 (n=29), while females had 174 deaths, with more deaths in 2019 (n=21). Regarding age groups, those over 60 years old were the most affected, with 276 deaths, and the highest number of deaths in 2022 (n=40). Education levels revealed that the most affected had no formal education (n=210). The place of occurrence alternated in prevalence depending on the year, with 151 deaths in hospitals, 177 at home, and 44 in other locations. **CONCLUSION:** There was a significant increase in deaths from circulatory diseases in the Indigenous population of Maranhão, especially from ischemic heart diseases and cerebrovascular diseases. The impacts of cultural, economic, and lifestyle changes resulting from interaction with non-Indigenous society were evident. This scenario highlights the need to improve health education for the prevention and treatment of cardiovascular diseases, expand access to healthcare services, and optimize basic healthcare infrastructure.

**185. HEART FAILURE MORTALITY IN THE MACRO-REGIONS OF MARANHÃO BETWEEN 2013 AND 2023**

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**INTRODUCTION:** Heart failure (HF) is a complex clinical syndrome resulting from the heart's inability to pump blood effectively to meet the body's metabolic needs. In Maranhão, heart failure is a growing public health concern, with Chagas cardiomyopathy, especially prevalent in the region, as one of the main etiologies of HF in the state. In this context, the aim of this study is to outline the epidemiological profile of HF mortality in the macro-regions of Maranhão from 2013 to 2023. **METHODS:** This is an epidemiological, descriptive and quantitative study. The data was collected through the Department of Informatics of the Unified Health System, analyzing the variables: number of hospitalizations, gender, color/race, age group, deaths and mortality rate. **RESULTS:** During the period analyzed, the state of Maranhão recorded 4,670 HF-related deaths and a total of 43,603 hospitalizations. There was an upward trend in mortality rates and the number of deaths in all macro-regions, with variations from 7.61% (427 deaths) in 2013 to 14.04% (613 deaths) in 2023. The North and East macro-regions had the highest mortality rates, registering 12.59% (2,474 deaths) and 11.74% (1,262 deaths), respectively, corresponding to approximately 36.5 deaths for the North region and 18.62 deaths for the East region per 100,000 inhabitants. Mortality was predominantly among men (2,526 deaths), with a mortality rate of 10.45%. Patients aged 60 or over accounted for 77.6% (3,624) of deaths, and analysis of the color/race variable revealed an occurrence for brown people with 43.91% (2,051) of deaths. **CONCLUSION:** Analysis of the data indicates a growing epidemiological challenge for HF in Maranhão, evidenced by the increase in mortality rates in all macro-regions. This highlights the need for improvements in access to health care, as well as actions to raise awareness of the disease and prevention strategies. The predominance of deaths among individuals aged 60 and over, together with the high incidence among brown people, highlights the urgency of approaches targeted at specific groups in order to tackle this problem effectively.

**186. MORTALITY DUE TO RHEUMATIC HEART VALVE DISEASE IN BRAZIL FROM 2018 TO 2022**

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**INTRODUCTION:** Rheumatic heart valve disease (RHVD) occurs due to inflammation of the valves as a result of rheumatic fever caused by streptococcal infection, and is responsible for high hospital morbidity and mortality. Surgical treatment is the most effective method for treating RHVD, but it carries risks depending on the cardiac dysfunction resulting from the clinical condition. Therefore, this study aims to investigate the mortality rates associated with RHVD. **METHODS:** This is a quantitative retrospective observational study that analyzed available data on mortality from aortic and mitral rheumatic heart valve disease (RHVD) in the Hospital Information System of the Department of Informatics of the Unified Health System (DATASUS) to compare the years from 2018 to 2022. **RESULTS:** During the period from 2018 to 2022, there were 433 deaths due to aortic rheumatic valve disease in the country, of which 188 (43.42%) occurred in the Southeast region, 105 (24.25%) in the Northeast region, 75 (17.32%) in the South region, 34 (7.85%) in the Central-West region, and 31 (7.16%) in the North region. The total number of deaths due to aortic rheumatic valve disease in the country in 2022 compared to 2018 showed a decrease of approximately 8.9%. In 2021, there were the fewest deaths from aortic rheumatic valve disease, with 68 (15.7%) cases, while 2018 had the highest incidence, with 101 (23.32%) cases. During the same period, Brazil recorded 5,172 deaths from mitral valve rheumatic disease, with 234 (4.52%) in the North region, 494 (9.55%) in the Central-West region, 906 (17.52%) in the South region, 1,129 (21.83%) in the Northeast region, and 2,409 (46.58%) in the Southeast region. In 2022, the highest number of deaths was recorded (1,168), representing an increase of 13.4% when compared to the years 2018 and 2020, the year with the lowest number of death records from mitral valve rheumatic disease (941). **CONCLUSION:** Therefore, it is possible to observe an uneven distribution of cases of rheumatic heart valve disease (RHVD), with a greater emphasis on the Southeast region, followed by the Northeast, South, Central-West, and North regions, respectively. In this sense, the analysis of the epidemiological situation of rheumatic heart valve disease in Brazil from 2018 to 2022 reveals a public health issue. This situation underscores the need for an adapted approach to combat the disease and coordinated efforts to improve clinical management and reduce its incidence and mortality.

**187. MORTALITY DUE TO SEPTICEMIA IN MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Sepsis, also known as septicemia, is a severe condition characterized by an exacerbated inflammatory response, negatively affecting other organs and systems. This dysregulated bodily response is primarily caused by either a virus or a bacterium. The objective of this study is to evaluate mortality data related to septicemia, with the aim of promoting further research and investigation into the issue. **METHODS:** This is a cross-sectional, observational, and descriptive study conducted using data from patients registered in the SUS Information System (DATASUS) regarding deaths from sepsis in Maranhão between 2012 and 2022. The sociodemographic variables used included age group, sex, and race. Additionally, descriptive analysis was performed using RStudio software. **RESULTS:** A total of 5,764 patients were included in the study, with 52.4% (n=3,023) of deaths occurring in male patients. Regarding race, 62.1% (n=3,582) were mixed race, 22.3% (n=1,288) were white, and only 15.6% (n=893) belonged to other racial categories. In terms of age group, there was a progression in mortality with increasing age: 9.0% (n=520) were aged between 50 and 59 years, 15.8% (n=911) between 60 and 69 years, 20.6% (n=1,191) between 70 and 79 years, and 28.1% (n=1,624) in patients aged 80 years or older. Another noteworthy age group was those under 1 year of age, representing 6.9% (n=401) of the sample. All other age categories not mentioned accounted for 19.3% (n=1,115) of the population studied. **CONCLUSION:** It is evident that people in extreme age groups—those under 1 year of age and patients over 70 years—are the most severely affected by septicemia. Early diagnostic measures are therefore essential to mitigate the rapid progression of the disease and reduce the number of deaths associated with this severe condition.

**188. MORTALITY FROM BACTERIAL MENINGITIS IN BRAZIL FROM 2020 TO 2023**

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**INTRODUCTION:** Meningitis is an inflammation of the leptomeninges, the membranes surrounding the brain and spinal cord. This condition is typically marked by an abnormal increase in white blood cells in the cerebrospinal fluid in most cases and can be caused by a variety of infectious or non-infectious agents. Bacterial meningitis is a severe condition often characterized by symptoms such as headache, fever, and vomiting. The clinical picture usually presents a severe character. Transmission primarily occurs through respiratory droplets and secretions from the upper respiratory tract. Due to its high potential to cause serious illness and death, bacterial meningitis holds significant epidemiological importance, justifying ongoing efforts to describe and quantify it. In this context, the present study aimed to characterize the epidemiological profile of cases of bacterial meningitis in Brazil from 2020 to 2023. **METHODS:** A cross-sectional, descriptive, and quantitative study was conducted using epidemiological data obtained from the Notification Information System available at the Department of Informatics of the Unified Health System (SUS) regarding bacterial meningitis, analyzing variables such as sex, race/color, and region. **RESULTS:** During the study period, 16,075 hospitalizations for bacterial meningitis were reported, resulting in 1,600 deaths. The highest occurrence was found in the Southeast region, accounting for 48.8% (781) of recorded deaths, followed by the Northeast with 20.6% (331), South with 17.4% (279), North with 7.68% (123), and Central-West with 5.37% (86). There was a higher occurrence in males at 56.6% (906) compared to females at 43.4% (694). The predominant demographic profile was mixed-race individuals concerning race/color. Bacterial meningitis is distributed heterogeneously across Brazil, with a predominance of deaths in the Southeast region, which is one of the most populous areas, highlighting issues of underreporting of cases that directly reflect on statistics presented within Brazil's own recording system. **CONCLUSION:** There is a pressing need to discuss and address bacterial meningitis in Brazil due to the fact that, despite access to a vaccine provided by the Unified Health System, cases and deaths still occur frequently, particularly in populous regions like the Southeast and Northeast.

**189. MORTALITY OF PATIENTS VICTIMS OF BURNS IN THE STATE OF MARANHÃO FROM 2019-2023**

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**INTRODUCTION:** Burns are highly incident traumatic events. In Brazil, the limited populational awareness and hospital infrastructure aggravate the burn-related mortality rates, amounting to over 2500 annual deaths. Therefore, it is crucial to evaluate this public health matter in Maranhão, thus, this study aims to analyze the profile of the mortality by burn rates in the state between 2019 to 2023. **METHODS:** This is a retrospective descriptive epidemiological study based on data available in the Department of Informatics of Sistema Único de Saúde (DATASUS). The data was collected from obit records and analyzed to recognize patterns and tendencies through the years of 2019-2023 in Maranhão, considering the variables: age, sex, region, color/race and characteristics of hospital care. **RESULTS:** Between 2019-2023, in Maranhão, 26 deaths by burns were registered, 24 entered hospital care on an urgent basis, and only were admitted electively, in 2023. In 2019, 6 fatalities occurred, most of which between 50-54 years old (n=2), and the southern region of the state being the most prevalent (n=3). In 2020, mortality reached its highest levels of the period (n=7), the most affected age range was 40-49 years (n=4), and the south region amounted the most occurrences (n=4). In 2021, 5 deaths happened, the ages most affected being 30-39 (n=2), and the northern and southern regions presented the highest rates, both with two deaths. The year of 2022, showed the lowest numbers (n=2), the intervals of 20-24 and 40-44 years with one fatality each, and the southern region as the only one to record deaths. As for 2023, 6 deaths were counted, most from 40-49 years (n=2), however, the north region had the highest quantity of cases (n=5). Between 2019-2023, mixed race ("pardos") individuals presented the highest mortality rates (n=7). The male sex was more affected from 2019-2021 (n=4, n=6, n=3, respectively), whereas in 2022, men and women had equally distributed mortality rates, each sex corresponding to one fatality. In 2023, the males became, once again, the most prevalent group in the mortality numbers (n=5). **CONCLUSION:** In the studied period, the majority of deaths were of mixed race individuals, across variable age ranges, and predominantly among males. The southern region of Maranhão stood out as the one with the most fatalities, and urgent care the most common form of hospital admission. The analysis of fatality profiles allows for a more effective guidance of health-related policies addressing both the preventive aspect of public awareness as well as the emergency response to victims, with the goal of reducing mortality.

**190. MALIGNANT BLADDER NEOPLASIA: PROFILE OF HOSPITALIZATIONS AND DEATHS IN MARANHÃO BETWEEN 2014 AND 2023**

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**INTRODUCTION:** Malignant bladder neoplasia is considered the eleventh most frequent cancer worldwide and the seventh most common in the male population. Its origin is multifactorial, depending on social, cultural, and economic variables that influence its prevalence. As a result, there are distinct patterns of incidence and mortality between regions. Therefore, this study aims to clarify the epidemiological profile of hospitalizations and deaths due to malignant bladder neoplasia in the state of Maranhão between 2014 and 2023. **METHODS:** This is an epidemiological, cross-sectional study, with data extracted from the SUS Hospital Information System (SIH/DATASUS), referring to the period from 2014 to 2023 in Maranhão. The variables used were sex, race, age group, hospitalizations, and deaths. Microsoft Excel 2019 was used for data tabulation and analysis. **RESULTS:** During the analyzed period, a total of 1,630 hospitalizations and 164 deaths due to malignant bladder neoplasia were detected in Maranhão. Notably, 2021 had the highest number of hospitalizations (216; 13.25%), while 2015 showed the lowest prevalence (128; 7.85%). Regarding deaths, 2022 stood out with 23 cases (14%), and 2014 had the lowest rate (10; 6.09%). Among the total hospitalizations, the male sex reported higher rates, with 1,125 cases (69.02%); the mixed-race group was the most frequent (890; 54.6%), with no reported cases among indigenous people. The most affected age group was 70 years or older, with the highest rate of hospitalizations (786; 48.22%), and the least affected was the under-19 age group (9; 0.55%). Regarding mortality, the male population was the most affected, with 116 cases (70.73%), as well as the mixed-race group, which accounted for 85 of the total deaths (51.8%), followed by the black population with 14 cases (8.5%), while the yellow race had the lowest rate (3; 1.8%). It was also found that the age group with the most deaths was 70 years or older (97; 59.1%), and the group with the fewest deaths was 19 years or younger, with no deaths recorded, while the 20 to 49-year-old group had the second-lowest rate (14; 8.53%). **CONCLUSION:** Therefore, this study highlights that the highest prevalence of hospitalizations and deaths due to malignant bladder neoplasia in Maranhão occurred in males, among the mixed-race population, and in the age group of 70 years or older. Additionally, it was observed that hospitalizations were more frequent in 2021, while mortality peaked in 2022.

**191. NEUROPSYCHIATRIC DIAGNOSES IN THE CHILD AND ADOLESCENT POPULATION**

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**INTRODUCTION:** Childhood neuropsychiatric disorders are highly relevant in Primary Health Care, requiring analysis of factors that affect fetal and child development. Understanding these conditions is crucial to improving intervention and informing families. This manuscript explores the main neuropsychiatric disorders in childhood, considering risk factors during pregnancy, care strategies in Primary Health Care, and the impact of technology and artificial intelligence on diagnosis and treatment. **METHODS:** This is an integrative literature review on neuropsychiatric disorders in children and adolescents, following six methodological steps: identifying the problem, searching scientific sources, collecting and categorizing results, evaluating and selecting articles, reading and interpreting the data, and synthesizing the text. The research utilized databases such as PubMed, Scielo, and BVS, with search terms including neuropsychiatry, autism, ADHD, and artificial intelligence. Original articles, reviews, recent studies, and documents from the Brazilian Psychiatric Association (ABP) and the Ministry of Health were selected, covering publications from 2019 to 2024. **RESULTS:** Pregnancy, although generally physiological, can present risks associated with maternal age, social context, health, lifestyle, and medication use, requiring specific care for both mother and fetus. Modern technology enables early evaluation of brain development, identifying abnormalities such as abnormal transcerebellar diameter and prenatal ventriculomegaly, which are associated with disorders like autism, ADHD, and schizophrenia. The main childhood neuropsychiatric disorders include ADHD, ASD, anxiety disorders, depression, and microcephaly, which significantly impact development and quality of life. Primary Health Care plays an essential role in prevention and in the training of health professionals. AI promises to revolutionize neuropsychiatry by improving diagnosis and treatment outcomes through the analysis of large datasets. **CONCLUSION:** Studies show that genetic and environmental factors, such as smoking and alcohol consumption during pregnancy, influence neuropsychiatric disorders. Premature births and low birth weight are associated with problems in neurological and psychiatric development in children. Collaboration between healthcare professionals is crucial for effective care. AI can improve the analysis of clinical data, early diagnosis, and the development of personalized treatments.

**192. NOTIFICATION FOR TUBERCULOSIS IN PERSONS DEPRIVED OF FREEDOM FROM 2019 TO 2023 IN MARANHÃO**Emmy Marjorie Carvalho de Araújo<sup>1</sup>; Klitia de Jesus Saraiva Garrido<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Tuberculosis is an infectious disease caused by the Mycobacterium Tuberculosis species complex, which mainly affects the lung parenchyma, although it can also cause extrapulmonary and systemic complications and hypersensitivity reactions. Its transmission is mainly horizontal, depending on direct interpersonal contact, through aerosol droplets. In this sense, given the form of contamination, the group of people deprived of liberty (PDL) is characterized as being at high risk for contracting the disease. Considering its impacts on quality of life and the current COVID-19 pandemic, the objective was to evaluate data regarding the diagnosis of tuberculosis in this group from 2019 to 2023. **METHODS:** This is an observational study, quantitative, retrospective and descriptive, in which the public database provided by the Notification Information System (SINAN/TabNet) was used, made available by the platform of the Department of Informatics of the Unified Health System (DATASUS), referring to Persons Deprived of Liberdade (PDL) diagnosed with Pulmonary Tuberculosis, from 2019 to 2023, in Maranhão. **RESULTS:** In the time period studied, there were a total of 11,944 cases of tuberculosis diagnosed in the specific group of PDL, with the highest isolated rate belonging to the year 2022, corresponding to 26% of cases (n = 3222). The pandemic period (2020 and 2021), in turn, corresponded to around 45% (n = 5435) of total cases. The lowest rate belongs to the year 2019, before the start of the COVID-19 outbreak, totaling around 22% (n = 2702) of cases. Until April 2023, 585 cases were recorded. **CONCLUSION:** The study demonstrates that the years corresponding to the pandemic are the main period of development and diagnosis of tuberculosis in this at-risk population, which suggests a strong correlation between the transmission of the disease and the state of abandonment and health risk of the prison system at the state level, especially when it comes to infectious diseases, caused by both the tuberculosis bacillus and the COVID-19 virus. Furthermore, a high rate of contagion was seen in the post-pandemic year (2022), which suggests that the worsening of this problem may also be a consequence of the challenges imposed by the pandemic period.

**193. NEW TEACHING METHODOLOGIES FOR IMMUNOLOGY IN MEDICAL SCHOOL: AN INTEGRATIVE REVIEW**Gabrielle Barbosa Ferreira<sup>1</sup>; Carlos Alberto Leite Filho<sup>1</sup>, Julia Fernanda Aguiar Santos<sup>1</sup>; Ana Gabriela da Silva Nascimento<sup>2</sup>, John Carlos Souza Leite<sup>3</sup>.<sup>1</sup> Federal University of Maranhão; <sup>2</sup> Faculty of Health Sciences Pitágoras - Codó; <sup>3</sup> State University of Ceará

**INTRODUCTION:** Immunology in medical education presents complex concepts that are often difficult to correlate with clinical manifestations. Additionally, it is considered an important yet challenging discipline, as students' main difficulties include vocabulary, identification of key areas, understanding of the pathogenesis of immunological diseases, clinical reasoning, and correlation of semiological findings. Thus, the objective of this study was to identify, in the scientific literature, new teaching methodologies for Immunology in medical education aimed at facilitating students' learning by exploring new available resources. **METHODS:** This is an integrative literature review on new teaching methodologies for Immunology in medical school between the years 2019 and 2023. For this purpose, the following descriptors were used: "Education, Medical", "Immunology", and "Teaching Methods", combined with the Boolean operator "and" in the Virtual Health Library (BVS) database. **RESULTS:** A total of 306 articles were found, of which 58 remained after applying the time frame and filtering for Portuguese, English, and Spanish languages. Subsequently, after reading the titles/abstracts and applying exclusion criteria, six articles remained, all of which were read in full and included in this review. In the selected articles, classroom experiments with active methodologies for teaching Immunology were conducted. The resources used included gamification (1), student-developed card games (1), realistic simulation (1), and case-based methodology (3). The main limitations regarding the research data were small sample sizes and single studies. In all studies, active methodologies were well-received by students, fostered better clinical reasoning, and generated increased interest in the subject. Additional advantages of the new methodologies mentioned were group work, stimulation of learning, active engagement, and problem-solving. Regarding the games and gamification, a practical, active, interdisciplinary, and enjoyable approach was reported. **CONCLUSION:** The new teaching approaches have proven to be useful tools for engaging medical students in more stages of active learning and consolidating knowledge in the subject of Immunology, presenting an alternative to be adopted by medical schools.

**194. NEW METHODOLOGIES FOR TEACHING SEMIOLOGY IN THE MEDICINE COURSE**

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**INTRODUCTION:** Medical Semiology consists of the study of the signs and symptoms of a given clinical condition. Teaching the subject is fundamental to the development of the ability of medical professionals to make informed therapeutic decisions. However, knowledge of the subject among undergraduate students has been shown to be deficient. This fact motivates the discussion about possible tools to improve the quality of teaching and learning. In this sense, the present work aims to highlight the new methodologies in the teaching of Medical Semiology in the Medical course.

**METHODS:** This is an integrative review of the literature on the new methodologies for teaching Semiology in the Medical course between the years 2019 to 2024. For this purpose, the following descriptors were used: "Education, Medical", "Semiology" and "Teaching Methods", crossed with the Boolean operator and in the Virtual Health Library (BVS) and Scientific Electronic Library Online (SCIELO) databases. **RESULTS:** The articles studied demonstrate that the practice of simulated clinical examination in healthy patients is important for the student to know how to identify pathological conditions, providing more confidence to the student when caring for a real patient. In addition, feedback from colleagues and a medical professional in the evaluation carried out during simulated clinical practice constitutes a useful tool, since it allows the university student to identify gaps present in their performance and learn from their mistakes. Nevertheless, resources such as active learning games were pointed out as interesting means. This is because a game to learn neurological syndromes proved to be efficient and attractive to students, when their knowledge was evaluated through a questionnaire before and after playing. Even so, the implementation of integrated teaching of Semiology with another discipline proved to be beneficial since, when sessions were held with the students to discuss cases with the inclusion of Radiology, for example, the method was considered overwhelming in terms of understanding the topics involved and the construction of clinical reasoning.

**CONCLUSION:** Therefore, these new methodologies can be considered an excellent learning alternative for medical school students when compared to traditional teaching and, therefore, facilitate learning of fundamental content during the academic journey.

**195. REEXPANSION PULMONARY EDEMA IN PLEURAL DISEASE: A SCIENTIFIC REVIEW**

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**INTRODUCTION:** Reexpansion Pulmonary Edema (REPE) is a potentially fatal clinical condition in which rapid reexpansion of the lung occurs after a previous collapse. The pathophysiology is uncertain and involves mechanisms such as increased hydrostatic pressure and changes in capillary permeability. The diagnosis occurs with a suggestive clinical picture and radiography. There is no specific treatment, and oxygenation, administration of diuretics and inotropic drugs should be used. The prognosis is poor and preventing the condition is ideal. This study provides a review of the literature on REPE, as it is little known in the medical field and urgently needs to be prevented and treated. **METHODS:** This is a systematic review of the literature on Reexpansion Pulmonary Edema with a search in the PubMed and Virtual Health Library databases between 2014 and 2024. The descriptor "reexpansion pulmonary edema" was used and the inclusion criteria were articles published between 2014 and 2024, in Portuguese and/or English. Incomplete articles, made on animals or that were duplicates were excluded. **RESULTS:** With the selection of 15 articles, it was found that REPE is a complication resulting from the rapid reexpansion of a previously collapsed lung. It occurs after 0.5% of chest drainages and has a mortality rate of 20%. The risk factors are age, large collapses, symptoms over 72 hours, rapid reexpansion and drainage with pressure below -20 centimeters of water. Symptoms are cough, dyspnea, chest pain, tachypnea, fever, tachycardia and cyanosis and radiography shows interstitial opacity, consolidations and air bronchogram. Treatment is done with discontinuation of the drainage procedure, mechanical ventilation, diuretics and inotropes. Prevention avoids catastrophic clinical courses. It is recommended to drain slowly and with a maximum of one and a half liters of fluids. If the patient begins to present a clinical picture suggestive of REPE, such as a coughing, the procedure should be stopped. **CONCLUSION:** REPE is a potentially fatal condition that occurs in individuals after chest drainage procedures. Although its pathophysiology is not fully understood, it is known that it can be prevented by draining little fluid and stopping as soon as the patient shows any symptoms. If it evolves with REPE, a radiography should be taken and supportive treatment started.

**196. NON-PHARMACOLOGICAL MANAGEMENT AS A THERAPEUTIC APPROACH IN THE TREATMENT OF OSTEOPOROSIS**

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**INTRODUCTION:** Osteoporosis is a common skeletal disease characterized by reduced bone mineral density and deterioration of bone tissue, leading to an increased risk of fractures. It is a bone disease that affects many individuals, particularly older adults and postmenopausal women. Several non-drug techniques, such as exercise therapy, aquatic therapy, electrical and electromagnetic stimulation, have shown effectiveness in reducing the risk of osteoporosis and its complications by improving bone metabolism. This study aims to elucidate the benefits and potential of non-pharmacological approaches through non-drug methods, highlighting the need for further research to determine their efficacy and their role in the comprehensive management of osteoporosis. **METHODS:** This is an integrative literature review, utilizing 15 scientific articles published between 2019 and 2024, based on data from "PubMed," "SciELO," "Journal of Osteoporosis," "Arquivos de Osteoporose," and the "Journal of Physical Therapy Science" in English and Portuguese, using the descriptors "osteoporosis," "non-pharmacological management," "interventions," and "therapeutics". **RESULTS:** The study suggests that expanding the scope and increasing the validity of these methods for clinical use holds significant promise in the treatment of osteoporosis. Several non-pharmacological approaches have been found to be effective in improving bone metabolism and reducing the risk of osteoporosis and its complications. Exercise therapy was highlighted as a key intervention with significant potential to enhance bone health. Aquatic therapy, electrical stimulation, and electromagnetic therapy were also explored for their effects on bone metabolism, showing promising results in improving bone tissue condition and musculoskeletal health, potentially contributing to the management of osteoporosis. **CONCLUSION:** Thus, this study highlights the potential of non-drug methods to complement traditional treatments for osteoporosis, providing a holistic approach to managing and preventing this condition by improving bone metabolism and reducing the risk of fractures. The results indicate that non-pharmacological management plays a crucial role, as it decreases bone density loss, as seen in several studies involving exercise therapy, aquatic therapy, and other key interventions in the treatment of this condition.

**197. DEATHS FROM LIVER AND INTRAHEPATIC BILE DUCT CANCER IN MARANHÃO FROM 2000 TO 2022**

Brially Maria Lopes da Silva<sup>1</sup>, Filipe Rainan Costa Silva<sup>1</sup>, Ivana Louise da Silva Martins<sup>1</sup>, Lara Luiza Pitombeira Rocha<sup>1</sup>, Sara Raquel Ribeiro Pires<sup>1</sup>, Ozimo Pereira Gama Filho<sup>1</sup>.

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**INTRODUCTION:** Neoplasms of the liver and intrahepatic bile ducts represent the second leading cause of cancer deaths in the world. Associated risk factors include, for example, exposure to aflatoxin in the diet, fatty liver disease, alcohol-induced cirrhosis, and chronic infection with hepatitis B virus (HBV) and hepatitis C virus (HCV). Hepatocellular carcinoma represents up to 85% of primary liver neoplasms, cholangiocarcinoma up to 15% and more uncommon tumors, such as primary hepatic lymphoma, the remaining 5%. Curative surgical intervention is limited to a minority of cases. Thus, the present study aims to evaluate data relating to mortality due to this disease in Maranhão from 2000 to 2022. **METHODS:** This is an epidemiological, cross-sectional, retrospective, descriptive, quantitative study, based on secondary data available in the Department of Informatics of the Unified Health System (DATASUS) on mortality due to malignant neoplasm of the liver and intrahepatic bile ducts in the state of Maranhão from 2000 to 2022. The variables analyzed were "year", "sex", "age group", "education", "race", "place of occurrence" and "marital status". **RESULTS:** 4,857 deaths from malignant neoplasms of the liver and intrahepatic bile ducts were recorded in Maranhão during the period analyzed. The years 2017, 2019 and 2020 had the highest number of records (n=310 each), while 2000 (n=72) and 2002 (n=73) had the lowest number of records. Males predominated, with 53.4% of cases (n = 2,593), while females accounted for 46.6% (n = 2,264). The predominant age group was 60 to 69 years old, with 26% (n=1265) of deaths, and individuals with no education and of mixed race had the highest number of records, with 32.6% (n=1582) and 62.3% (n=3026), respectively. Regarding the place of death, approximately 58% (n = 2,812) occurred in a hospital and 39% (n = 1,896) at home. As for marital status, married people prevailed, with around 57% (n=2288), while individuals legally separated were the minority of deaths (n=123). **CONCLUSION:** It is concluded that mortality due to liver and intra-bile duct neoplasms liver disease is prevalent in male individuals, of mixed race, with no education, married and aged between 60 and 69 years. The prevalence in this age group and level of education is related to risk factors associated with aging, such as the onset of chronic diseases, and low health education, which generally corroborates late diagnosis, respectively.



**198. DEATHS FROM DISEASES CAUSED BY THE HUMAN IMMUNODEFICIENCY VIRUS IN BRAZIL BETWEEN 2013 TO 2022**

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**INTRODUCTION:** The human immunodeficiency virus (HIV) attacks the immune system, specifically CD4 cells, and is responsible for acquired immunodeficiency syndrome (AIDS) if not properly treated. HIV is transmitted through contact with bodily fluids from infected individuals, such as blood, breast milk, semen, and vaginal fluids. It is important to highlight that this disease has no cure, and when CD4 levels are low, affected individuals are more susceptible to acquiring opportunistic infections, which can lead to death. Furthermore, this study aims to examine the epidemiology of deaths from opportunistic infections in patients with HIV between 2013 and 2022. **METHODS:** This is an epidemiological, ecological study covering the years 2013 to 2022, with secondary data obtained through TABNET/DATASUS, without the need for approval by a research ethics committee. The study variables are: year, region, sex, age group, race/ethnicity, education level, marital status, and place of death. **RESULTS:** During the study period, there were 84,498 deaths from opportunistic infections in patients with HIV, with men comprising the majority (n=56,638), predominantly in the Southeast region (n=35,231), and in the age groups of 40 to 49 years (n=24,204), followed by those aged 30 to 39 years (n=22,739). The majority of deaths occurred among individuals of mixed race (n=37,266) and white individuals (n=31,935). Additionally, deaths were higher among patients with 4 to 7 years of education (n=21,551), significantly higher among single individuals (n=51,816), and primarily occurred in hospital settings (n=75,885), followed by other healthcare facilities (n=5,180). **CONCLUSION:** The data indicate a high incidence of deaths from opportunistic infections in patients with HIV, particularly affecting men, individuals in the Southeast region, those aged 40 to 49 years, of mixed race, with 4 to 7 years of schooling, and single individuals in hospital settings. This reality underscores the urgent need for public health actions aimed at preventing both HIV and opportunistic infections in HIV-positive patients, focusing on the most vulnerable groups through health education and early identification of signs and symptoms of opportunistic infections.

**199. DEATHS DUE TO CONGENITAL MALFORMATIONS OF THE NERVOUS SYSTEM IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Anomalies may happen in different systems of the human body, including the nervous system. It manifests as malformations of the brain, spinal cord, or peripheral nerves, with an emphasis on neural tube defects, which encompass a range of conditions: spina bifida, anencephaly, encephalocele, myelomeningocele, and others. There are also conditions not derived from neural tube defects, such as hydrocephalus and microcephaly. Given this wide range of conditions, many of which are often incompatible with life, the present study aims to investigate and define the epidemiological profile of deaths due to congenital malformations of the nervous system in the state of Maranhão. **METHODS:** This is a descriptive and retrospective epidemiological study using secondary data from the Department of Informatics of the Unified Health System (DATASUS). The variables analyzed were: number of deaths, congenital malformations of the nervous system ICD-10 (Q00 to Q07), age group, sex, ethnicity, macro-region, and micro-region of health between the years 2012 and 2022. The 'Google Sheets' application was used for data tabulation and analysis. **RESULTS:** There were 799 deaths due to congenital malformations of the nervous system in Maranhão between 2012 and 2022, with an average of 80 deaths per year. The most affected age group was 0 to 1 year, totaling 616 deaths (77.09%), of which 366 (45.81%) occurred in the first week of life. In the age group of 1 to 4 years, 75 (9.38%) deaths were recorded, and in the age group of 5 to 9 years, there were 29 (3.62%) deaths. There were 398 (49.81%) deaths among males and 394 (49.31%) among females, showing no significant disparities. In terms of ethnicity, 514 were mixed-race (64.33%), 157 (16.64%) were white, and 101 (12.64%) had no ethnicity recorded. The northern macro-region recorded the majority of deaths, totaling 443 (55.44%), followed by the eastern macro-region with 207 (25.90%), and finally the southern macro-region with 146 (18.27%). The three micro-regions with the highest number of deaths were the São Luís Urban Agglomeration, with 186 (23.27%) deaths, Caxias, with 76 (9.51%) deaths, and Pindaré, with 69 (8.63%) recorded deaths. **CONCLUSION:** The analysis of deaths due to congenital malformations of the nervous system in Maranhão between 2012 and 2022 reveals a high prevalence in children under 1 year of age, especially in the first week of life, with a higher incidence among mixed-race individuals and in the northern macro-region. The distribution by sex is balanced, with no significant disparities.

**200. DEATHS FROM PNEUMONIA IN BRAZIL BETWEEN 2013 TO 2022**

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**INTRODUCTION:** Pneumonia is an inflammatory disease that affects the lungs and can be caused by bacteria, viruses, fungi, and toxic substances. Its symptoms include cough, fever, dyspnea, and chest pain, impairing the quality of life of affected patients, in addition to leading to high hospital costs, thus representing a serious public health issue. In this context, the present study aims to examine the epidemiology of deaths from pneumonia in Brazil from 2013 to 2022. **METHODS:** This is an epidemiological, ecological, time-series study covering the years 2013 to 2022, using secondary data extracted from TABNET/DATASUS, which does not require approval from a research ethics committee. The variables studied were: year, region, sex, age group, race/ethnicity, education level, marital status, and place of death. **RESULTS:** A total of 760,904 deaths from pneumonia were reported in Brazil during the study period, demonstrating an increasing trend over the years, except in 2020 and 2021. The region with the highest occurrence was the Southeast (n=407,847), followed by the Northeast (n=168,506). Regarding gender, females predominated, representing 50.5% (n=384,276). The majority of deaths occurred in age groups over 60 years of age (n=634,622). In terms of race/ethnicity, white individuals (n=439,475) were followed by mixed-race individuals (n=237,018). Most of the deceased had 1 to 3 years of education (n=186,922). Marital status data revealed a predominance of widowed individuals (n=266,682). The majority of deaths occurred in hospitals (n=638,759), followed by homes (n=59,562). **CONCLUSION:** The data reveal an alarming scenario regarding pneumonia, with a growing increase in deaths over these years, concentrated in the Southeast region, with a higher prevalence among females, particularly in individuals over 60 years old, of white race/ethnicity, with low education, and among widowed individuals. Most deaths occurred in hospitals, highlighting the severity of the condition and the serious public health problem this scenario presents. Therefore, this situation emphasizes the need for public health strategies targeting these most vulnerable groups, as well as the entire population, focusing on health education as a form of prevention and early identification of pneumonia symptoms, aiming to expand public policies that monitor pneumonia epidemics, implement preventive measures, establish early diagnosis, and create care and treatment protocols to reduce pneumonia-related deaths in Brazil.

**201. ORGAN TISSUE AND CELL TRANSPLANTS, IN THE NORTHEAST, FROM 2014 TO 2023**

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**INTRODUCTION:** Organ, tissue and cell transplantation (TOTC) is considered an advance in Medicine, however, even with this advance, this method presents risks, such as body rejection and resistance from citizens. Currently, there is great success with this procedure, which still faces challenges of patient resistance. Treating these challenges is demanding, complex and requires adequate professional training, since pre-operative and post-operative monitoring, both physical and psychological, is crucial for the good result and patient adherence to the procedure, therefore it is important that we study this procedure to better understand these difficulties and needs. Given this condition, the objective of this study was to study the epidemiological profile of organ, tissue and cell transplants in the Northeast in the last decade. **METHODS:** Epidemiological, ecological cross-sectional study, with secondary data from TABNET-DATASUS (Hospital Information System-SIH-SUS), time series: 2014 to 2023. The data extracted from DATASUS were tabulated in EXCEL spreadsheets, where they were graphs and tables were drawn up and explained in absolute numbers and frequencies. **RESULTS:** n=133606 hospitalizations were carried out, transplants showed an increasing trend until 2019, decreasing in 2020 and with a return to growth in 2021, maintaining an increasing trend until 2023. The total amount spent on such procedures was n= r\$1133825984,22; with average value=r\$8486.34; average days of stay: n=5.9; deaths: n=1991; mortality rate: n=1.49; Federation Unit: Pernambuco: n=62116 highest number and lowest number in Sergipe: n=1678. **CONCLUSION:** Organ and tissue transplantation is often crucial and used for the patient as a last attempt to assist life. Therefore, it is essential that there is training for the appropriate qualification of health professionals to deal with such situations, in addition to a greater dissemination of information about such processes, aiming to alleviate the general view of the risks and highlight their benefits and, thus, mitigate the common sense.

**202. OSTEOMYELITIS IN BRAZIL AND ITS HOSPITAL MORBIDITY AND MORTALITY**

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**INTRODUCTION:** Osteomyelitis is an infectious inflammatory disease of chronic or acute nature that affects bone tissue, caused by the invasion of viruses, bacteria or fungi, through the exposure of injured skin tissue, by conventional trauma or post-surgical procedure, spreading through the systems and lodging in the bone, which can lead to necrosis. It presents high morbidity and mortality, with complex therapeutic management. Therefore, the objective of this study was to investigate the morbidity and mortality due to osteomyelitis in Brazil. **METHODS:** This is an epidemiological, ecological, quantitative, descriptive and cross-sectional study, with secondary data from the SUS Hospital Information System/SIH-SUS (TABNET/DATASUS), time series (2014 to 2023), on ICD-10-M86: Osteomyelitis, with the following variables: region, year, hospitalizations, race, sex, amount spent, average number of days of stay, deaths, mortality rate. The data were tabulated in Excel, and graphs and tables were prepared, with results expressed in absolute numbers and frequencies. This research does not require submission/approval by a Research Ethics Committee, as it uses secondary data from DATASUS. **RESULTS:** There were n=149,183 hospitalizations due to this pathology during the study period, with a predominance in the Southeast region (39%), followed by the Northeast region (29%) and the North region had fewer hospitalizations (6%). Males represented 71% of the sample. Regarding race, it was more frequent in browns (43%), followed by whites (31%), with variability in hospitalizations by race, between the regions. The total amount spent during the period was R\$167,977,258.48. With an average number of days of stay n=8.5, the Southeast exceeded this average number of days of hospitalization n=9.6. There were n=1,970, with more deaths in the Southeast, which also had a higher mortality rate, with n=1.67, while in Brazil, the average hospital mortality rate: n=1.32. **CONCLUSION:** There were a high number of hospitalizations due to osteomyelitis in Brazil, with high costs, many days of hospitalization and some deaths. There were more hospitalizations, a higher average number of days and a higher mortality rate in the southeast. Males were more affected and mixed race and white people were more affected. It is considered highly important that these infections be better diagnosed and treated while still in the less severe phase in outpatient settings, and thus prevent hospitalizations and deaths through early treatment, with better established care and antibiotic therapy protocols.

**203. OSTEOSARCOMAS AND CHONDROSARCOMAS: TIME DIAGNOSIS-TREATMENT IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Osteosarcomas are malignant neoplasms that affect the bones, being the most common primary bone tumor in children and adults. Chondrosarcomas are cancers that produce cartilage cells and occur mostly in adults. In addition to being discovered in the early stages, they are usually low-grade. Their development can occur in any articular cartilage in the body. Thus, the present study aims to analyze the evolution of the waiting time to start treatment after the diagnosis of malignant neoplasm. **METHODS:** The study is of the cross-sectional observational analytical type, using data from the DATASUS Oncology Panel for all individuals registered between the years 2019 and 2023, considering the time interval in days between the diagnosis and the first registered treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) grouping ICDs C40 and C41. We used RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures because the data have an abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** In 2019, the median number of days waiting between diagnosis and start of treatment was 27 days (IQR: 1 - 54), in 63 patients. From 2020 to 2023, there was a fluctuation in the median number of days waiting, without following a trend towards stability. In 2020, the median was 18.5 days (IQR: 0 - 93), in 48 patients. In 2021, 20 days were recorded (IQR: 0 - 59), with 52 patients analyzed. In 2022, there was a decrease with 13 days (IQR: 0 - 34) recorded in 51 patients. In 2023, the median was 22 days (IQR: 0 - 39) in 55 patients. **CONCLUSION:** Despite variations in the period, the 60-day law, which establishes the 60-day limit, was complied with according to the data analyzed by the dispersion of the time medians. The data should be analyzed with caution since an increase in the time between diagnosis and treatment of the studied diseases would be expected due to the occurrence of the COVID-19 pandemic.

**204. OUTCOMES OF INDUCED HYPOTHERMIA USE IN PATIENTS WITH TRAUMATIC BRAIN INJURY**

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**INTRODUCTION:** Traumatic brain injury (TBI) is characterized by lesions caused by external forces to the skull, resulting in neurological impairment. Induced hypothermia (IH) is an alternative to minimize secondary complications. This type of trauma primarily affects young men, but mortality is higher among the elderly. Such a scenario demands significant public health spending on initial treatment and care for sequelae. Therefore, this study aims to gather evidence related to the outcomes of using IH as a treatment for TBI.

**METHODS:** This is an integrative review developed based on a research question using the PICO strategy - "Patient, Intervention, Comparison, and Outcome." A search was then conducted in the PubMed database using the descriptors "Brain Injuries," "Traumatic," and "Hypothermia," with the boolean operator AND, followed by reading the selected articles and organizing the results. Studies available electronically and written in English, with titles and abstracts relating TBI with IH, were included. Among the 46 articles, 36 were excluded after applying the selection criteria, and 10 were reviewed.

**RESULTS:** A systematic review conducted in the United Kingdom found no significant difference in mortality with the use of IH in TBI victims, although older studies suggested efficacy. A multicenter randomized clinical trial in Australia found no benefits in IH treatment either. A 2017 meta-analysis revealed that IH showed benefits in TBI. On the other hand, a 2019 Chinese study found no significant difference in mortality rate but considered that mild IH could be beneficial for neurological recovery, while a 2020 study did not support the use of IH for neurological protection but suggested its effectiveness in reducing intracranial pressure (ICP). IH may be harmful in less severe injuries and offers no benefits in more severe cases; despite improving neurological outcomes, the benefits of IH concerning mortality were not statistically significant. **CONCLUSION:** It is concluded that the effectiveness of IH in TBI varies depending on factors such as severity and duration of exposure, and it may bring benefits in reducing ICP. However, most studies do not find a significant difference in mortality and suggest an increased risk of sepsis and pneumonia. Therefore, the decision to use IH in TBI treatment should be carefully evaluated, considering the potential risks and benefits for each specific case.

**205. SCIENTIFIC LANDSCAPE OF CARDIOVASCULAR SURGERY IN BRAZIL: A BIBLIOMETRIC ANALYSIS**

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**INTRODUCTION:** Cardiovascular surgery in Brazil began in the 1950s and 1960s. Since then, conducting studies for the development of this field has become essential. However, there is still a scarcity of research that evaluates Brazilian academic contributions in this area. Bibliometric analysis is used to map the development of research in various contexts. Therefore, this study aims to examine Brazilian contributions to understand the real impact of national publications in international journals in the field of cardiac surgery. **METHODS:** For the article search, the Scopus database (Elsevier) was used. The five journals with the highest CiteScore in cardiovascular surgery were analyzed. Regarding the variables, the average number of publications over the last two decades, the total number of publications, and the percentage of Brazilian publications in comparison to the global landscape were assessed. **RESULTS:** During the study period, 325 publications from Brazil were identified. It was found that there was an average of 1.92 articles per year between 2004 and 2013, and 2.4 between 2014 and 2023. Additionally, it was observed that articles with Brazilian contributions represent approximately 0.52% of the total publications. **CONCLUSION:** The study highlights a modest increase in Brazilian publications in cardiac surgery over the past two decades, from 1.92 to 2.4 articles per year. However, Brazil's contribution remains limited, accounting for only 0.52% of global publications. Therefore, this underscores the need for effective strategies to encourage scientific production and research dissemination in Brazil, such as funding programs, international collaboration, and the promotion of research within medical institutions.

**206. PANORAMA OF PERIPHERAL NERVE NEUROLYSIS USAGE IN NORTHEAST REGION, BRAZIL, FROM 2014 TO 2023**

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**INTRODUCTION:** Leprosy, caused by *Mycobacterium leprae*, affects the skin and nerves. The pathogen is phagocytosed by macrophages or binds to Schwann cells, leading to neuritis, which causes pain due to neural compression. Corticosteroid therapy is the primary treatment for compression, but neurolysis (NL) can be used as a complementary therapy. Neural decompression helps preserve function, improves vascularization, and prevents neurological damage. Given the importance of the procedure, this study aims to provide a temporal analysis of neurolysis performed in the Northeast region, Brazil, from 2014 to 2023. **METHODS:** This is an epidemiological and cross-sectional study with a temporal series, using data from the Department of Informatics of the Unified Health System (SUS) for the period from January 2014 to December 2023. The inquiry was conducted under the "Hospital Production" section of the Hospital Information System of SUS, based on the location of hospitalization. The procedure specified was "non-functional neurolysis of peripheral nerves." The variables considered were "Year of Care," "Hospitalizations," "Deaths," and "Mortality Rate". **RESULTS:** A total of 4,281 hospitalizations for non-functional neurolysis (NL) were recorded in the Northeast (NE) from January 2014 to December 2023, representing 11.32% of the national total. Bahia had the highest number of procedures (n=1,550 - 36.2%), while Sergipe had the lowest (n=17 - 0.4%). In the temporal analysis, 2019 recorded the highest number of NL cases (648), followed by a 65.3% decline in 2020 (225). NL showed a low mortality rate (0.14%), with 6 deaths: 2 in Maranhão (MA) and 4 in Ceará. The average length of stay was positive, averaging 1 day of hospitalization. Maranhão, the state with the highest number of leprosy cases in the region (n=35,198 - 27.7%) according to the Notification of Diseases Information System (SINAN), recorded 525 NL procedures during the study period, with 272 in São Luís, 233 in Pinheiro, and 20 cases distributed throughout the state. **CONCLUSION:** These data indicate that non-functional neurolysis has good distribution and acceptance in the Northeast region. The low mortality rate and short duration of hospitalizations reinforce the viability of this procedure compared to other therapeutic options. It is important to note that, due to national leprosy control programs, an increase in the number of cases and reported procedures is expected in the coming years.

**207. OVERVIEW OF LIVE BIRTHS ACCORDING TO ROBSON CLASSIFICATION GROUPS FROM 2019 TO 2023**

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**INTRODUCTION:** The international health community has considered an ideal cesarean section rate to be between 10%-15% of all births. In Brazil, the total number of cesarean sections in the public health system is estimated at 52%. In this context, around one million women undergo cesarean sections annually without obstetric indication. The Robson Classification is an auxiliary tool in reducing cesarean section rates. Thus, this study aimed to analyze the panorama of live births according to the Robson group classification between the years 2019 and 2023 in the state of Maranhão (MA).. **METHODS:** This is a descriptive epidemiological study based on data made available by the Department of Informatics of the Unified Health System (DATASUS). The study population consists of live births according to the Epidemiological Risk Classification (Robson Groups) in the state of Maranhão (MA), reported between 2019 and 2023. **RESULTS:** The year 2019 had the highest number of cesarean sections (56,624), and Group 5 (G5) recorded the most cesarean sections (87,417). Regarding the cesarean rate relative to total births, there was an increase of 7.46%. Additionally, Group 9 (G9) had the highest average rate (98.40%). Furthermore, in terms of live births through cesarean sections, 2019 had the highest figure (113,317), followed by decreases in the following years, with 2023 showing the lowest number of cases (97,008). It is also noteworthy that Group 3 (G3) had the highest rate and best proportion of live births (143,240), despite not being the group most subjected to cesarean delivery, which was G5, with the third highest number of live births by cesarean sections (104,039), while G9 (1,893) showed the lowest number of notifications throughout the study period. **CONCLUSION:** The results indicate an increase in cesarean section rates. G5 had the highest number of cesareans, reflecting the high rate of operative deliveries in women with previous cesarean sections, while G3 had the highest proportion of live births. Additionally, it is noted that the cesarean rate is disproportionately high in certain groups, such as G9. These findings require greater attention and monitoring of certain groups to promote safe vaginal deliveries and reduce unnecessary cesarean sections. In summary, the application of the Robson Classification has proven to be a useful tool for assessing and comparing cesarean rates, providing a basis for future interventions aimed at improving obstetric care in MA.

**208. EPIDEMIOLOGICAL OVERVIEW OF RSI/WMSD IN THE STATE OF MARANHÃO BETWEEN 2010 AND 2023**Mariana Clara Borges da Silva<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Isaías Borges Telles<sup>1</sup>.<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** Repetitive Strain Injuries and Work-Related Musculoskeletal Disorders (RSI/WMSDs) represent a vast set of musculoskeletal conditions resulting from strenuous use of the structure, which can cause debilitating consequences, such as fatigue, pain and paresthesia. Among the pathologies caused by these conditions, the main ones are tendonitis, myalgia and low back pain. In addition to impacting the well-being and quality of life of professionals, they also promote negative results in the occupational environment. **METHODS:** This study represents a quantitative, retrospective and descriptive analysis, and the data were collected by the Notifiable Diseases Information System (SINAN/SUS) of the Department of Information Technology of the Unified Health System (DATASUS). Thus, data were collected from the state of Maranhão, from 2010 to 2023, on: health macro-regions, gender, occupation, number of absences, as well as signs and symptoms. **RESULTS:** During the proposed period, 144 cases of RSI/WMSD were reported in Maranhão, mostly affecting females, with 70.14% of the population affected. In this context, most of the notifications occurred in the South macro-region, with 51.47% of the cases; more specifically, the city of Imperatriz had the highest number of notifications (41.18%). Regarding the type of occupation, the most affected were nursing technicians, accounting for only 9.15% of the cases, among a range of more than 50 professions. Another important factor is that 50% of the impacted professionals needed to be absent, which resulted in consequences such as pain, decreased strength and movement. **CONCLUSION:** Therefore, RSI/WMSDs represent a problem for public health in Maranhão. Thus, the high number of cases in Imperatriz can be correlated with the presence of the Occupational Health Reference Center, which favors more notifications, as it specifically monitors the work environment, as well as a possible underreporting in cities that also have this service, such as São Luís. Furthermore, a greater impact on the health area is evident, in addition to a major impact on productivity, regarding high rates of absences. Therefore, interventions in the logistics of the work environment are essential, with reduced working hours, more frequent breaks and assistance from a multidisciplinary team to guarantee full health for workers and prevent injuries, reflecting in better work results.

**209. PEMPHIGUS DEATHS IN BRAZIL IN 2 DECADES**Ana Luísa Penha Castro Marques<sup>1</sup>, José Carlos Gomes Patriota Neto<sup>1</sup>, Fernanda Diógenes Ferreira<sup>1</sup>, João Marcos Cordeiro Ribeiro Filho<sup>1</sup>, Flávia Rafaela Diógenes Ferreira<sup>1</sup>, Tassya Jordana Coqueiro Batalha<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

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**INTRODUCTION:** Pemphigus is classified as a rare and sometimes fatal autoimmune disease in which the body itself gathers defense cells to attack the desmoglein (Dsg) proteins, responsible for adhesion between the layers of the skin, causing acantholysis. It usually manifests initially in the oral cavity, later progressing to the skin of other regions of the body. Given the risk and difficulty in diagnosing this pathology, the objective of this study was to study the epidemiological profile of mortality due to pemphigus in Brazil, from 2000 to 2020. **METHODS:** An epidemiological, descriptive-analytical study was carried out with secondary data from TABNET-DATASUS - Ministry of Health-Brazil. Such data do not require submission/approval by a research ethics committee because it is an official and public database that does not allow access to individual information, only population information. The collected data were tabulated in Excel and the results presented in graphs and tables and expressed in absolute numbers and frequencies. **RESULTS:** There were n = 1511 deaths from this pathology over the 20 years of study, showing an increasing trend until 2018, with some decreases throughout the period and showing a decreasing trend in 2019 and, shortly thereafter, an increase in 2020. The year 2015 had the highest number of deaths n = 116. The region with the highest mortality was the Southeast with 46% of deaths; the most affected sex was female with 59%; the age group with the most deaths was 80 years or older with 29%; the most affected color/race was white with 52.2%; schooling with 12 years or more had fewer deaths (4%); marital status, preferably affected, married (34%); place of occurrence: hospital (84%). **CONCLUSION:** Although pemphigus is a rare, treatable disease with low lethality, a significant number of deaths from pemphigus have occurred in Brazil during these decades, even though it is easily treated (with corticosteroids and other medications). This mortality rate is increasing and is a serious problem, especially in the Southeast and Northeast of the country, predominantly in women, between 40 and 80 years of age, in whites, with little or no education, mostly among married people, with the place of death being in a hospital environment. Therefore, these deaths indicate the need for improved diagnosis and early treatment to inhibit mortality from pemphigus in Brazil.

**210. PENILE CANCER: ANALYSIS OF INFILTRATING CELLS IN TUMOR AND PERIPHERAL BLOOD**

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**INTRODUCTION:** Penile Cancer (PC) in Brazil represents 2% of the tumors that affect the male population, which makes the country the second with the highest frequency of this type of neoplasm in the Global Ranking. The North and the Northeast present the highest incidence rates. The state of Maranhão holds around 10.6% of registered Brazilian cases, which determines the importance of expanding PC studies in the state. Therefore, the study aims to analyze the influence of the immunological response in tumor samples and peripheral blood from patients with PC. **METHODS:** This is an experimental, translational study with a convenience sample. Nineteen male patients with penile cancer, candidates for penectomy, treated at a referral oncology hospital in the state of Maranhão, were included. The tumors collected were maintained in RPMI culture medium with antibiotics at 4°C and analyzed via flow cytometry. The study was approved by the Ethics and Research Committee under opinion no. CAAE: 1.308.275. Data were analyzed using GraphPad Prism 8 software for mean, proportion, and lymphocyte distribution. **RESULTS:** T lymphocytes (CD3+) represent the most infiltrated immune cells in the tumor, with an average of 54.52% ± 21.12%. The proportion of B lymphocytes (CD19+) ranged from 6.11% ± 14% of the total found in the tumor fragment. Natural Killer cells (CD56+) showed the most homogeneous distribution across all tumors analyzed, followed by monocytes (CD14+), with lower frequency. In the blood samples from the patients, significant amounts of monocytes and circulating lymphocytes were identified; however, few patients presented both monocytes and lymphocytes concomitantly. Of the 17 samples, only 2 showed monocyte markers, while the other 15 had a high prevalence of lymphocytes, representing 81.2% of the mononuclear cells present in the sample. The expression of CD3+, CD4+, and CD8- lymphocytes was identified, and the expression of PD1/PDL1 receptors was evaluated, showing a variation of 30.7% to 96.3% in certain patients. **CONCLUSION:** Several populations of immune cells were identified infiltrating the tumor tissue, as well as the presence of circulating lymphocytes and monocytes in the patients' peripheral blood. Additionally, the CD3+ and CD4+ populations showed PD1 receptor expression. These observations are important for identifying response and prognosis in penile cancer treatments.

**211. CLINICAL PROFILE OF PATIENTS AFFECTED BY ACUTE INFLAMMATORY ABDOMEN IN MARANHÃO**

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**INTRODUCTION:** The inflammatory acute abdomen is the most common type of acute abdomen in the emergency setting and is characterized by its sudden onset, with the main manifestation being abdominal pain associated with symptoms such as nausea, vomiting, fever, and reduced appetite. Its primary etiology is acute appendicitis, followed by cholecystitis, diverticulitis, and acute pancreatitis, and it generally requires surgical treatment. Therefore, this study aims to analyze data on the clinical profile of patients with this condition in Maranhão to identify possible regional patterns and thus contribute to reducing morbidity and mortality from this pathology. **METHODS:** This is a systematic review conducted through the databases: National Library of Medicine (PubMed), Google Scholar, and Scientific Electronic Library Online (SciELO). Inclusion criteria involved articles published between 2015 and 2024 in Portuguese, English, and Spanish that addressed clinical and epidemiological aspects of this condition. Six articles were used with the descriptors "Clinical Profile," "Inflammatory Acute Abdomen," and "Maranhão". **RESULTS:** The inflammatory acute abdomen in Maranhão predominantly affects male patients (61.68%), with appendicitis being the most common etiology (86.41%). The majority of cases occur in the second decade of life—ages 11 to 20 years (25.52%); the predominant outcome was hospital discharge (90.07%), and the case fatality rate was 2.66%. The main complications were of infectious etiology (7.59%), with surgical site infections and abscesses having the highest relative frequency (7.04%). Other diagnoses included intraperitoneal abscesses (8.99%), infection from previous abdominal surgery (4.15%), acute cholecystitis (3.46%), pelvic inflammatory disease (2.19%), diverticulitis (1.15%), and pyelonephritis (0.69%). Patients from São Luís accounted for 55.17%, while 44.6% were from the interior of the state, and only one patient was from another state in Brazil (0.23%). **CONCLUSION:** It is concluded that the inflammatory acute abdomen in Maranhão mainly affects young men, with appendicitis being the principal diagnosis. Furthermore, most cases occur in São Luís, with a case fatality rate of 2.66%. Infectious complications were common, highlighting the need for better infection control. Therefore, future studies should focus on reducing these complications to improve clinical outcomes for this comorbidity in the state.

**212. CLINICAL-EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH AMERICAN TEGUMENTARY LEISHMANIASIS**

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**INTRODUCTION:** American Tegumentary Leishmaniasis (ATL) is an infectious disease that causes ulcers on the skin and mucous membranes. It is an anthroponosis caused by several species of protozoa of the genus *Leishmania*, transmitted by the bite of different species of sandflies. It is considered by the World Health Organization (WHO) to be one of the six most important infectious diseases in the world, with an average of around 21,000 cases per year in Brazil. Therefore, the aim of this study is to outline the clinical and epidemiological profile of patients with ATL in the health region of Imperatriz-MA. **METHODS:** This was a retrospective, cross-sectional, quantitative survey with an analytical descriptive approach. Clinical and epidemiological data from 86 patients living and/or belonging to municipalities in the Imperatriz-MA Health Macroregion was evaluated between January 2018 and July 2019. Data was tabulated and analyzed using Microsoft Excel 2016 and IBM SPSS 20. In addition, the study was submitted to and approved by the Research Ethics Committee of Plataforma Brasil (CAAE protocol 17659219.4.0000.5087). **RESULTS:** A total of 86 notification forms from the Epidemiological Surveillance service in Imperatriz - MA of patients with ATL, with a mean age of 31.7 years, mostly male, aged between 19 and 49 years, living in urban areas and mostly in the military, were evaluated. For diagnosis, the most commonly used test was direct parasitology (82.6%), which was positive in 68 of the 71 tests applied (95.7%); followed by histopathological examination of the lesions (29.1%), with 17 positive cases out of 25 (68%). In addition, there were five (5.8%) clinical-epidemiological diagnoses. Regarding the form of presentation of the disease, cutaneous was more prevalent (84.8%), especially among young adults (19-49 years). On the other hand, in individuals aged over 50, the cutaneous and mucosal forms showed similar data. **CONCLUSION:** It was found that most of the patients with ATL analyzed in the study lived in urban areas and had the cutaneous form, with a predominance of males, which may be associated with their occupations. Knowledge of the profile of those affected is essential for targeting public management and prevention actions, especially in relation to the military. These measures are crucial in order to promote quality care for the affected population.

**213. EPIDEMIOLOGICAL PROFILE OF MORTALITY FROM STOMACH CANCER IN THE NORTHEAST REGION**

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**INTRODUCTION:** In Brazil, stomach cancer ranks fourth among men and sixth among women in prevalence and mortality among malignant neoplasms. Additionally, it is a pathology that remains asymptomatic for a long time or presents with nonspecific symptoms, making early diagnosis in a potentially curable stage difficult. However, it has well-established risk factors such as smoking, alcoholism, diet, *Helicobacter pylori* infection, and family history. Therefore, the present study aims to outline an epidemiological profile across the states of the Northeast to elucidate the pattern of most affected patients and the environment they are part of, in order to guide accurate screening and specific health actions for the population. **METHODS:** This is a comparative epidemiological-descriptive study, considering stomach cancer deaths between 2013 and 2022 in the states of the Northeast, with data extracted from the Department of Informatics of the Unified Health System (DATASUS). The variables considered are: year of death, gender, age group, race/ethnicity, education level, and mortality rate. The population estimates used to calculate the mortality rate were provided by the Brazilian Institute of Geography and Statistics (IBGE) and made available in DATASUS. **RESULTS:** During the analyzed period, a total of 33,409 deaths were identified in the Northeast region, with the highest numbers in the states of Bahia (7,862), Ceará (7,784), and Pernambuco (5,761). From 2013 to 2022, mortality was higher among men (62.5%), with a peak incidence in the 70-79 age group (26.1%), predominantly in mixed race (63%), and the majority of individuals showing no formal education (26.6%). Regarding the mortality rate, it was observed that in 2013 the rate was 5.6 per 100,000 inhabitants, with the states of Ceará, Paraíba, and Rio Grande do Norte having the highest rates (8.14, 7.99, and 6.93, respectively). In 2022, this rate was 6.0 per 100,000 inhabitants, and the states of Ceará, Paraíba, and Rio Grande do Norte continued to show, in that order, the three highest mortality rates in the region – 8.4, 7.35, and 6.94, respectively. **CONCLUSION:** Understanding the epidemiology of gastric cancer in the Northeast is essential for formulating public policies and early diagnosis and treatment strategies. States with high mortality rates need investments in health, education, and professional training to reduce regional inequalities and improve the quality of life and survival of patients.



**214. PROFILE OF THE GERIATRIC POPULATION ATTENDED IN A SPECIALIZED CHRONIC PAIN OUTPATIENT CLINIC**

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**INTRODUCTION:** The Frailty Syndrome in the Elderly, resulting from physiological changes during aging, can compromise autonomy and worsen quality of life, particularly in cases of chronic pain. Therefore, this study aims to assess the impact of chronic pain on the quality of life of vulnerable and non-vulnerable elderly patients attended in a specialized outpatient clinic. **METHODS:** This is an analytical cross-sectional study conducted in a Chronic Pain Service with patients aged 65 years or older, without cognitive deficits. The Vulnerable Elderly Survey (VES-13) was used to assess frailty, and the Geriatric Pain Measure (GPM-P) was used to evaluate pain. Statistical analysis was performed using Stata 15.0, adopting a 5% significance level ( $p < 0.05$ ). The study was approved by the Ethics and Research Committee (CAAE: N°55388921.0.000.5086, approval N°5.248.614). **RESULTS:** The sample of 143 patients included 31.5% non-vulnerable and 68.5% vulnerable individuals. The adjusted GPM-P was higher in the vulnerable group ( $70.60 \pm 17.69$ ) compared to the non-vulnerable group ( $47.34 \pm 17.20$ ), with a mean difference of  $-23.26$  (95% CI:  $-29.51$  to  $-17.02$ ;  $p < 0.0001$ ). Pearson's correlation between GPM and VES-13 was moderately positive ( $r = 0.5197$ ,  $p < 0.0001$ ), confirmed by Spearman's coefficient ( $\rho = 0.5623$ ,  $p < 0.0001$ ). Severe pain was observed in 7.7% of the non-vulnerable and 44.8% of the vulnerable group ( $p < 0.0001$ ). Analyses of the number of falls ( $p=0.166$ ) and opioid use ( $p=0.950$ ) did not reveal statistically significant differences between the groups. The mean age of the vulnerable group was 67.3 years ( $SD = 7.12$ ), and the non-vulnerable group was 65.73 years ( $SD = 5.07$ ) ( $p = 0.1874$ ), with a predominance of females in both groups ( $p = 0.769$ ). Among clinical conditions, osteoarthritis was more prevalent among the non-vulnerable group (19.0%), while low back pain predominated in the non-vulnerable group (13.7%) ( $p=0.212$ ). Hypertension was the most common comorbidity, affecting 46.9% of the vulnerable and 56.4% of the non-vulnerable group ( $p=0.309$ ). **CONCLUSION:** Chronic pain has a greater impact on the quality of life of vulnerable elderly individuals, as evidenced by the adjusted GPM-P and the higher frequency of severe pain. The positive correlation between GPM-P and VES-13 highlights the need for specific approaches in pain management for vulnerable populations. Sociodemographic and clinical variables analyzed did not present statistically significant differences. This study reinforces the relationship between frailty and the multidimensional characteristics of pain.

**215. PROFILE OF HOSPITALIZATIONS DUE TO ATHEROSCLEROSIS IN NORTHEAST BRAZIL OVER THE PAST 10 YEARS**

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**INTRODUCTION:** Atherosclerosis is the primary pathological mechanism responsible for most cardiovascular diseases, which have become the leading cause of disability and premature death worldwide. It is estimated that by 2030, approximately 23.6 million people will die from cardiovascular diseases each year. This growing significance highlights the need for improved prevention and treatment of the disease. This study aims to identify epidemiological patterns of hospitalizations due to atherosclerosis in Northeast Brazil over the past decade, contributing to the understanding of the profile of patients with atherosclerotic disease and providing a basis for future public policies, research, and preventive and therapeutic practices in the region. **METHODS:** This is a cross-sectional, descriptive study with a quantitative approach. Data were collected using the TabNet Win 32 3.0 tool from the Department of Informatics of the Brazilian Unified Health System (DATASUS). The data collection was based on the analysis of hospital admission data classified according to the 10th revision of the International Classification of Diseases (ICD-10), selecting the code ICD-10 I70 (atherosclerosis), the Northeast region, and the variables of sex, age group, and race, covering the period from May 2015 to May 2024. Data were extracted, organized, and tabulated using Microsoft Excel 2016 for statistical analysis. **RESULTS:** The data showed that over the 10-year period, there were 53,558 hospitalizations due to atherosclerosis in Northeast Brazil, with 27,843 (51.99%) among males and 25,715 (48.01%) among females. Regarding race, 36,240 hospitalizations had recorded information, of which 30,678 (84.65%) were among mixed-race individuals, 2,661 (7.34%) among white individuals, 2,170 (5.99%) among black individuals, and 724 (2%) among yellow individuals. In terms of age, 197 (0.37%) cases were among patients up to 19 years old, 11,939 (22.29%) among those aged 20 to 59 years, and 41,422 (77.34%) among those aged 60 years or older. **CONCLUSION:** Therefore, it can be observed that there was no significant difference in hospitalization cases between males and females; however, there is a predominance of mixed-race patients and elderly individuals, with a clear increase in cases as age progresses. These data highlight identifiable risk factors in hospitalizations due to atherosclerosis in Northeast Brazil over the past 10 years, providing important information for future public policies, research, and medical practices.

**216. PROFILE OF HOSPITALIZATIONS FOR OSTEOMYELITIS IN PATIENTS OVER 60 YEARS OLD IN MARANHÃO**

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**INTRODUCTION:** Osteomyelitis is an inflammation of bone tissue caused by microorganisms, presenting in acute or chronic forms and carrying a high risk of complications, particularly in elderly individuals. In this population, the presence of predisposing comorbidities along with immunosenescence adds to the complexity of treatment and increases mortality rates. This study aimed to characterize the profile of hospitalizations for osteomyelitis in patients over 60 years old in Maranhão. **METHODS:** This was a descriptive, retrospective, and quantitative study, utilizing secondary data from the Hospital Information System of the Unified Health System (SIH/SUS), accessed through the Department of Informatics of the Brazilian Unified Health System (DATASUS). Hospitalizations for osteomyelitis in Maranhão from 2014 to 2023 were analyzed, focusing on patients aged 60 years or older. Variables analyzed included sex, race/ethnicity, type of hospital admission, mortality rates, hospitalization costs, and average length of stay. **RESULTS:** Hospitalizations for osteomyelitis in elderly patients in Maranhão primarily occurred in mixed-race men. The predominance of male cases may be attributed to delayed medical care-seeking behaviors in this group. The high proportion of emergency hospitalizations suggests late diagnoses and severe complications. The elevated mortality rate reflects the vulnerability of elderly individuals, who often present with exacerbating comorbidities. Effective prevention and management strategies are crucial to avoid debilitating complications and reduce the financial burden on the healthcare system. Moreover, the possibility of underreporting should be considered, as the heterogeneous predisposing factors for osteomyelitis complicate accurate diagnosis. **CONCLUSION:** Hospitalizations for osteomyelitis in elderly patients in Maranhão primarily occurred in mixed-race men. The predominance of male cases may be attributed to delayed medical care-seeking behaviors in this group. The high proportion of emergency hospitalizations suggests late diagnoses and severe complications. The elevated mortality rate reflects the vulnerability of elderly individuals, who often present with exacerbating comorbidities. Effective prevention and management strategies are crucial to avoid debilitating complications and reduce the financial burden on the healthcare system. Moreover, the possibility of underreporting should be considered, as the heterogeneous predisposing factors for osteomyelitis complicate accurate diagnosis.

**217. PROFILE OF HOSPITALIZATIONS DUE TO PSYCHOTIC DISORDERS IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Psychotic disorders present a significant public health challenge due to their characterization by positive, negative, and disorganized symptoms, which substantially affect the quality of life of those impacted. Identifying the sociodemographic profile of psychotic patients is crucial for improving mental health care, as clinical manifestations and access to treatment differ across various regions and populations. Hence, this study aims to describe the profile of psychotic patients hospitalized in Maranhão, Brazil. **METHODS:** This is an epidemiological, descriptive, time-series study (2019-2023) based on secondary data from ICD-10 codes F20-F29 (Schizophrenia, schizotypal, and delusional disorders) in Maranhão, extracted from the Hospital Information System (SIH/DATASUS). Data were tabulated and statistically analyzed using Excel. The variables analyzed included type of admission, age group, sex, and race/ethnicity. **RESULTS:** Over the study period, a total of 12,293 hospitalizations were recorded, with an incidence rate of 22% (n = 2,792) in 2023. Regarding the type of admission, approximately 63% (n = 7,715) were emergency admissions. In the age group analysis, the highest prevalence was observed in the 30-39 age group (n = 3,250), followed by 20-29 (n = 3,010) and 40-49 (n = 2,996). In terms of sex, around 70% (n = 8,632) of the hospitalizations involved male patients. Regarding race/ethnicity, 55% (n = 5,238) of the patients for whom this information was provided (n = 9,427) were identified as White. **CONCLUSION:** The findings suggest an increasing prevalence of hospitalizations due to psychotic disorders in Maranhão between 2019 and 2023. The predominance of emergency admissions highlights the potential impact of delayed diagnosis and lack of continuous treatment in the exacerbation of psychotic conditions. The distribution by sex and age group aligns with existing literature, showing higher prevalence among men, a peak in young adults, and a bimodal pattern in women. A notable limitation is the underreporting of racial/ethnic data in one-fifth of cases, which contrasts with literature indicating a higher prevalence in Black populations. In conclusion, the findings emphasize the need for public policies aimed at early detection, continuous treatment, and equitable access to mental health services, alongside strengthening the use of health information systems for monitoring mental health outcomes.

**218. PROFILE OF HOSPITALIZATION DUE TO EMBOLISM AND ARTERIAL THROMBOSIS IN MARANHÃO FROM 2019 TO 2023**

Isadora Leal Tavares Silva<sup>1</sup>, Wanderson José Cutrim Ferreira<sup>1</sup>, Layla Carolina Barros Leite<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, João Pedro Belaglóvis Castelo Branco<sup>1</sup>, Santiago Servin<sup>1</sup>.

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**INTRODUCTION:** In most cases, arterial thrombosis is preceded by atherosclerosis, which leads to a narrowing of the vessel lumen, damage to the vessel wall, and altered blood flow. Embolism occurs when the thrombus detaches, relocates, and may cause partial or total occlusion of vessels. This process is influenced by the individual's lifestyle and has significant potential for morbidity and mortality, making it important to understand its epidemiology to develop prevention and treatment strategies. Therefore, this study aims to describe the epidemiology of hospitalizations due to arterial embolism and thrombosis in Maranhão from 2019 to 2023.

**METHODS:** This is a descriptive epidemiological study with a quantitative approach, conducted through data collection from the Department of Information and Informatics of the Unified Health System (DATASUS) in Maranhão from 2019 to 2023. The variables used were: number of hospitalizations, sex, race, age group, macro and micro health region, type of care, and mortality rate. **RESULTS:** A total of 844 hospitalizations due to embolism and thrombosis were recorded in Maranhão during the specified period. The year with the highest number of occurrences was 2022, with 22.15% (n=187) of hospitalizations, followed by 2023, with 21.68% (n=183), and 2021, with 20.73% (n=175). Males accounted for 54.85% (n=463) of hospitalizations. The mixed-race population was the most prevalent, representing 33.29% (n=281) of cases. The 60 to 69-year age group had the highest percentage of hospitalizations, with 23.57% (n=199) of occurrences, followed by the 70 to 79-year age group, with 23.34% (n=197). The North macro-region had the highest percentage of hospitalizations, with 46.91% (n=396), followed by the South, with 44.31% (n=374), and the East, with 8.76% (n=74). The Imperatriz micro-region accounted for 42.65% (n=360) of hospitalizations, followed by the urban area of São Luís, responsible for 42.41% (n=358). A total of 88.74% (n=749) of hospitalizations were urgent care cases. The overall mortality rate was 8.77% (n=74).

**CONCLUSION:** The data highlights a higher incidence of arterial embolism and thrombosis in males and the mixed-race population. The 60 to 69 and 70 to 79-year age groups were the most affected, indicating a possible age-related association, thus requiring more attention. The North and South macro-regions presented the majority of cases, while the Imperatriz micro-region and the urban area of São Luís accounted for a very significant portion.

**219. PROFILE OF PATIENTS HOSPITALIZED FOR ESSENTIAL HYPERTENSION IN MARANHÃO BETWEEN 2019 AND 2023**

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**INTRODUCTION:** Essential Hypertension (EH) is a multifactorial cardiovascular disorder characterized by elevated systolic blood pressure ( $\geq 140$  mmHg) and/or elevated diastolic blood pressure ( $\geq 90$  mmHg), which can be properly managed and treated in Primary Health Care (PHC) to prevent worsening of the disease. Thus, hospitalization due to EH is considered a Hospitalization for a Condition Sensitive to Primary Health Care (HCSPHC), serving as an indicator of the effectiveness of PHC interventions. The aim of this study was to describe the profile of patients hospitalized for EH in Maranhão over the past 5 years and to identify the most prioritized groups for health promotion policies and prevention of aggravations in the state. **METHODS:** This is an epidemiological, descriptive, cross-sectional, retrospective, and quantitative study that analyzed data collected through the TabNet Win32 3.0 tool from the Department of Informatics of the Unified Health System (DATASUS), referring to hospitalizations for the morbidity "Essential (primary) Hypertension" from the list of the 10th revision of the International Classification of Diseases (ICD-10). The variables adopted were: "region," "federative unit," "sex," "age group," "color/race," "type of care," "Health Region (CIR)," and "Year of care," covering the period from 2019 to 2023. The data were organized and processed in Microsoft Excel 2016 software for descriptive analysis. **RESULTS:** The data collected shows that in the last 5 years, Maranhão was the state in the Northeast with the most hospitalizations for EH (34,115 cases, 43% of regional hospitalizations). During this period, the state recorded the highest numbers of: i) occurrences in 2019 (7,531 cases); ii) hospitalizations in emergency settings (31,439 cases, 92%); iii) incidence among women (20,279 cases, 59%); iv) occurrence in the age group of 80 years or older (4,987 cases, 15%); v) hospitalizations among mixed-race people (23,392 cases, 68%); and vi) hospitalizations in the health regions of Zé Doca, São João dos Patos, and Viana, with 3,941, 3,693, and 3,293 cases, respectively. **CONCLUSION:** It can be concluded that hospitalizations for EH in Maranhão are significantly higher compared to other states in the Northeast region. The incidence is higher among: i) women; ii) individuals over 80 years old; iii) mixed-race individuals; and iv) people from regions farther from the capital. Therefore, it is suggested that better-targeted actions in the PHC aim to promote health and prevent worsening of EH.

**220. PROFILE OF ADOLESCENT PARTURIENTS IN THE MUNICIPALITY OF PINHEIRO- MA BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Teenage pregnancy is a topic of great relevance in Brazilian social reality. This study was carried out with the objective of characterizing the profile of pregnant adolescents and their newborns in the municipality of Pinheiro, state of Maranhão, between the years 2018 and 2022 and discussing possible interventions. **METHODS:** Ecological, quantitative, descriptive study, with analysis of data registered at SINASC and made available on the website of the SUS Information Technology Department (DATASUS). The data collected totaled 1.492 teenage mothers in the city of Pinheiro during the years 2018 to 2022. The variables were analyzed: age, race, marital status and education of the mother, number of prenatal consultations, place of birth, type of delivery, duration of pregnancy and sex of the newborn. Descriptive statistics were used to present the results. **RESULTS:** Between the years 2018 and 2022, there were 7,333 births in the municipality of Pinheiro, of which 1,492 were births to pregnant teenagers, aged between 10 and 19 years old, making up 20.34% of the total number of postpartum women. Among adolescent mothers, 94.77% were between 15 and 19 years old, while 5.22% were between 10 and 14 years old. 90.81% were mixed race, 66.08% were single and 83.24% had eight to eleven years of education. 45.04% had between three and six prenatal consultations. 96.78% were hospital births, 66.21% were vaginal births and 83.31% of newborns were born at term and 50.87% were male. It is clear that pregnant adolescents' access to prenatal services is far below expectations. Considering this indicator, there is a need for quality prenatal care, as it is crucial for maternal and neonatal health, especially among adolescents. This public needs multidisciplinary prenatal care, which makes full support viable, offering, in addition to basic procedures, care that prevents physical, social and emotional complications in pregnant teenagers. **CONCLUSION:** It is assumed that prenatal care for pregnant teenagers in the municipality of Pinheiro must be improved, especially in early enrollment, continuity of care and provision of guidance.

**221. EPIDEMIOLOGICAL PROFILE OF CHAGAS DISEASE IN THE BAIXADA MARANHENSE (2017- 2022)**

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**INTRODUCTION:** Chagas disease, caused by the protozoan *Trypanosoma cruzi*, is transmitted mainly through *Triatoma infestans*, a species of insect popularly called Barber, and has two phases: acute (ACD) and chronic, occurring after the acute phase if the carrier does not receive timely treatment. In this sense, this study aims to investigate the epidemiological profile of Chagas disease in the Baixada region in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, using data provided by the Notifiable Diseases Information System (SINAN) database, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years researched were between 2017 and 2022, and an analysis of incidence location, sex, race and age group was carried out. **RESULTS:** Between 2017 and 2022, 31 cases of ACD were registered in the Baixada Maranhense. Of these, 64.5% (n = 20) occurred in the municipality of Pedro do Rosário and 16.12% (n = 5) in Pinheiro. Of those affected, 51.6% (n = 16) were black people, followed by 38.7% (n = 12) brown people. 58.06% (n=18) were female and 45.16% (n=14) of the episodes ranged in age from 20 to 39 years. **CONCLUSION** The individuals affected by DCA are mostly black women between the ages of 20 and 39, living in the municipality of Pedro do Rosário, in northern Maranhão. It can be concluded that public policies aimed at improving the quality of housing for the population to prevent DCA need to be reformulated in areas of lower population density and focusing on the most socially vulnerable populations and, consequently, more exposed to the protozoan, since the proliferation of insects is linked to precarious housing and the lack of basic sanitation in the Baixada Maranhense.

**222. EPIDEMIOLOGICAL PROFILE OF LEPROSY IN CHILDREN AGED 1 TO 14 YEARS IN MARANHÃO FROM 2014 TO 2024**

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**INTRODUCTION:** Leprosy, caused by the bacillus *Mycobacterium leprae*, is a chronic infectious disease with a longstanding epidemiological significance. Despite the availability of treatment in the public health system, the disease continues to maintain significant epidemiological rates in poor or underdeveloped countries, where health authorities have yet to successfully control this pathology. This study aims to describe the epidemiological profile of leprosy in children aged from 1 to 14 in the state of Maranhão, Brazil, from 2013 to 2023. **METHODS:** This is an observational, retrospective, and cross-sectional study with a quantitative approach, using data collected from the DATASUS platform. A descriptive epidemiological study was conducted using secondary data obtained from DATASUS, provided by the Ministry of Health. The study population included all children diagnosed and notified with leprosy in Maranhão between 2013 and 2023. The variables analyzed included age, sex, race and clinical form. The data was analyzed using descriptive statistics. **RESULTS:** During the analysed period, 3.357 cases of leprosy were reported in children aged from 1 to 14 in Maranhão. The majority of cases were diagnosed in children aged 10–14 years (n=2.181), with a distribution of 55% (n=1.847) male and 45% (n=1.510) female. This distribution is also more predominant among brown individuals (n=2,383), followed by black individuals (n=497). Regarding the clinical form, the borderline form (n=1.652) is the most prevalent, accounting for 49.2% of the reported cases. **CONCLUSION:** The data show that leprosy continues to be a public health problem in Maranhão, especially in children under the age of 15, which suggests active transmission of the disease. These results highlight the need to intensify control measures, early diagnosis and appropriate treatment, as well as awareness campaigns and health education aiming at this age group, which could be essential for reducing the incidence of leprosy in the state.

**223. EPIDEMIOLOGICAL PROFILE OF AMERICAN CUTANEOUS LEISHMANIASIS IN AÇAILÂNCIA FROM 2012 TO 2022**

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**INTRODUCTION:** American Cutaneous Leishmaniasis (ACL) is an infectious disease caused by the protozoan *Leishmania* and transmitted by phlebotomine sandflies. It manifests in cutaneous, mucosal, or cutaneous-mucosal forms. Moreover, ACL is classified as a neglected tropical disease, posing a significant challenge for global health. The state of Maranhão, particularly the city of Açailândia, is heavily affected by this disease, which is endemic in this region. Given its epidemiological importance, this study aims to define the epidemiological profile of ACL in Açailândia from 2012 to 2022.

**METHODS:** This is a cross-sectional, descriptive, quantitative, and retrospective study utilizing secondary data of ACL cases in Açailândia from 2012 to 2022, from the Notification of Diseases Information System (SINAN). Variables such as age, gender, education level, ethnicity, disease progression, and clinical form were analyzed to assess the distribution of ACL in this area. The incidence was calculated by dividing the number of new cases by the population of Açailândia and multiplying by 100,000. Additionally, the relationship between the seasonal distribution of ACL cases and the municipality's rainfall index was investigated, employing statistical analysis through the chi-square test. **RESULTS:** During the study period, a total of 17,578 ACL cases were reported in Maranhão, resulting in an incidence of 259 cases per 100,000 inhabitants. In Açailândia, 612 ACL cases were recorded, corresponding to an incidence of 574 cases per 100,000 inhabitants. The majority of patients had incomplete primary education (44.11%), were aged between 20 and 39 years (47.22%), were male (81%), and identified as mixed race (71.57%). Furthermore, 96.4% of cases presented as cutaneous, with only 85.95% progressing to cure. It was also observed that the distribution of cases was not correlated with the rainfall index, as an increase in notifications occurred during dry months, such as September (73 cases), October (91 cases), and November (77 cases), in contrast to the rainy months of January (55 cases) and February (41 cases), which recorded fewer notifications. **CONCLUSION:** ACL predominantly affects men, mixed race, aged between 20 and 39 years, and individuals with incomplete primary education, occurring primarily during the non-rainy months of the year. This highlights the disease as a public health challenge in the city of Açailândia. Therefore, it is essential to implement governmental policies aimed at combating this disease, particularly targeting this demographic group.

**224. EPIDEMIOLOGICAL PROFILE OF AMERICAN CUTANEOUS LEISHMANIASIS IN BARREIRINHAS (2012-2022)**

Giovana Balbinot Soares<sup>1</sup>, Bruna Lima Durans Cavalcanti<sup>1</sup>, Giulian Araújo Fróes<sup>1</sup>, Jaqueline Regô Lima<sup>1</sup>, Mel Cristinne Coelho Miranda<sup>1</sup>, Matheus Silva Alves<sup>1,2</sup>.

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**INTRODUCTION:** American Cutaneous Leishmaniasis (ACL) is a non-contagious infectious disease caused by protozoa of the genus *Leishmania*, transmitted by vectors, affecting skin and mucous membranes. It can present in the following clinical forms: cutaneous (CL), disseminated (DL), mucosal (ML), or cutaneous-diffuse (CDL). As an endemic disease in the state of Maranhão (MA), it represents a challenge for public health. Therefore, the aim of this study is to determine the epidemiological profile of American cutaneous leishmaniasis in the city of Barreirinhas-MA from 2012 to 2022.

**METHODS:** This is a descriptive, retrospective, and quantitative study based on secondary data collected from the Notifiable Diseases Information System on ACL cases in Barreirinhas-MA from 2012 to 2022. The study used notification years and months as filters, and included variables such as age group, ethnicity, gender, education level, clinical form of the disease, and case progression. In addition, a comparison was made between the region's rainfall indices and the disease's seasonality, along with the calculation of prevalence, which was derived by dividing the total number of cases over 10 years by the city's population and multiplying by 10,000. **RESULTS:** During this period, 693 cases of ACL were reported in Barreirinhas-MA, with a prevalence of 105/10,000 inhabitants. In contrast, Maranhão state had a prevalence of 25/10,000 inhabitants, indicating that the prevalence in the city was four times higher than in the state. The patient profile showed a higher frequency among males (58%), mixed-race individuals (98.9%), those aged 20 to 39 years (33%), and those with incomplete elementary education, up to the fourth grade (65.3%). As well as 98.8% of the cases were of the cutaneous form of the disease, and 78.3% progressed to cure. Additionally, no relationship was established between rainfall and the seasonality of ACL, as its peak occurred during relatively dry periods, such as October and November. **CONCLUSION:** In Barreirinhas, the epidemiological profile revealed a predominance of males, mixed-race individuals, aged 20 to 39 years, with low education levels, presenting with cutaneous forms and a favorable prognosis. It is essential to raise public awareness about effective prevention measures, such as vector control and early diagnosis, and ensure accurate case notification for reliable epidemiological data, thereby reducing the disease's impact in the city.

**225. EPIDEMIOLOGICAL PROFILE OF AMERICAN TEGUMENTARY LEISHMANIASIS IN SANTA LUZIA-MA BETWEEN 2012 AND 2022**

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**INTRODUCTION:** American Tegumentary Leishmaniasis (ATL) is an infectious, chronic, and non-contagious disease caused by protozoa of the genus *Leishmania* and transmitted by the sandfly mosquito, which mediates the relationship between the protozoan and the host. It is a disease transmitted by vectors, where humans are secondary or accidental hosts, with an average incubation period of 2 to 3 months. ATL has several clinical forms, the main ones being: Cutaneous, Disseminated, Mucosal, and Diffuse. ATL is considered one of the six most important infectious diseases in the world. Therefore, this study aims to determine the epidemiological profile of American tegumentary leishmaniasis in the city of Santa Luzia do Maranhão between the years 2012 and 2022. **METHODS:** This is a descriptive, ecological, retrospective, and quantitative study based on secondary data on cases of American tegumentary leishmaniasis in the city of Santa Luzia do Maranhão from 2012 to 2022. The data collected were obtained from the Information System for Notifiable Diseases (SINAN). Variables such as gender, age, ethnicity, education level, disease progression, and clinical form were grouped. Incidence was measured by the number of new cases over the population of the state multiplied by 100,000. **RESULTS:** During this period, 204,562 cases of ATL were reported in Brazil, with a prevalence of 100.76/100,000 inhabitants. In Maranhão, 17,578 cases of ATL were reported in the region, with a prevalence of 259.38/100,000 inhabitants. In Santa Luzia, 536 cases were reported, with a prevalence of 929.99/100,000. There was a predominance of mixed race individuals (77.23%), males (79.85%), the highest incidence in patients with incomplete education from fifth to eighth grade (28.17%), and ages between 20 and 39 years (46.45%). The cutaneous form was predominant in 98.69% of cases, and 77.42% progressed to cure. **CONCLUSION:** The relevance of this research is justified by the scarcity of epidemiological studies regarding this city and the high prevalence of ATL in Santa Luzia, which exceeds the national prevalence and predominantly affects men, mixed race individuals, aged between 20 and 39 years, and those without a complete elementary education, making it a public health issue in the city. Therefore, it is essential to implement targeted measures to address this disease, especially for this segment of the population.

**226. EPIDEMIOLOGICAL PROFILE OF LEPROSY IN THE PINDARÉ REGION IN MARANHÃO BETWEEN 2019 AND 2023**

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<sup>1</sup> Faculty of Medical Sciences AFYA – Santa Inês

**INTRODUCTION:** Leprosy is an infectious disease caused by *Mycobacterium leprae*, which mainly affects the peripheral nerves and skin. Transmission occurs through droplets from the nose and mouth during close and frequent contact with untreated cases. In 2022, Maranhão had the third highest statistics among Brazilian states, with a rate three times higher than the national average. The aim of this study was therefore to outline the epidemiological profile of leprosy cases in the Pindaré region of Maranhão. **METHODS:** This is an epidemiological, cross-sectional, descriptive, retrospective study with a quantitative approach to leprosy cases in the Pindaré micro-region. The data was collected from the DATASUS platform. The inclusion criteria were patients diagnosed with leprosy in the Pindaré micro-region between 2019 and 2023. The exclusion criteria were patients diagnosed in other micro-regions of the state of Maranhão and outside the period 2019 to 2023. The variables analyzed were the number of cases in the period, gender, age group, race, schooling, operational classification and clinical form. **RESULTS:** In the period studied, the Pindaré micro-region recorded 1,631 cases of leprosy, which represents 12.3% of cases in Maranhão. In terms of gender, cases predominated among males (n= 1,016), in contrast to females (n= 615). In terms of age, the most common ages are 30 to 39, followed by 40 to 49. With regard to race, the majority of cases are among brown and black individuals. With regard to schooling, leprosy cases are concentrated in patients with incomplete primary education, followed by illiterate patients. According to the operational classification, the Pindaré micro-region has more multibacillary cases (n= 1,402) compared to paucibacillary (n=229). In terms of clinical form, dimorphic cases are the most prevalent. **CONCLUSION:** This study showed that leprosy cases in the Pindaré micro-region are in line with the high incidence of cases in the state of Maranhão and are significantly similar to the profile of cases at state level. Thus, leprosy cases in the Pindaré micro-region are concentrated among males, brown people, aged between 30 and 39, with a low level of schooling or illiterate, with multibacillary.

**227. EPIDEMIOLOGICAL PROFILE OF MENINGITIS IN CHILDREN UNDER 15 IN MARANHÃO FROM 2014 TO 2024**

Laio Vinicius Spindola De Araujo<sup>1</sup>, Andressa De Assis Barbosa Costa Oliveira<sup>1</sup>, Thalia Diniz Da Silva<sup>1</sup>, Eduardo Carneiro De Oliveira<sup>1</sup>, Ana Clara Coutinho De Oliveira<sup>1</sup>, Melissa Morgana De Souza Gonçalves<sup>1</sup> Andrea Borges Araruna De Galiza<sup>1</sup>.

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**INTRODUCTION:** Meningitis is characterized by inflammation of the cerebral meninges, and can be caused by infectious agents, including bacteria, viruses, fungi, parasites, and even non-infectious causes such as inflammatory diseases and medications. This disease is even more severe in the population under 15 years of age, due to the high associated mortality and morbidity rates. Given the various events involving neurological sequelae, particularly in childhood, meningitis is considered a public health problem. Therefore, understanding the epidemiological profile of meningitis in this age group is crucial for developing prevention and control strategies. This study aims to describe the epidemiological profile of meningitis in children under 15 years of age in the state of Maranhão, from 2014 to 2024. **METHODS:** This is an observational, retrospective, cross-sectional study with a quantitative approach, using data collected from the DATASUS platform. A descriptive epidemiological study was conducted using secondary data obtained from DATASUS, provided by the Ministry of Health. The study population included all children diagnosed and reported with meningitis in Maranhão between 2014 and 2024. The analyzed variables included age, sex, color/race, and the region with the highest prevalence. Data were analyzed using descriptive statistics. **RESULTS:** During the study period, 719 cases of meningitis were reported in children under 15 years of age in the state of Maranhão, with the highest prevalence in children under 1 year old, representing 37,6% of the cases (n=270), followed by the 1 to 4-year age group with 21,8% (n=157). Children aged 5 to 9 years accounted for 21% of the cases (n=151), and the 10 to 14-year age group represented 19,6% of the cases (n=141). The most affected color/race by this infection was brown (n=580), with a distribution of 59,7% in males and 40,3% in females. Based on IBGE data from Maranhão, the microregions with the highest incidence were: the São Luís urban agglomeration (n=504), followed by Imperatriz (n=31) and Gerais de Balsas (n=25). **CONCLUSION:** The data show that meningitis remains a significant public health issue among children under 15 years old in the state of Maranhão. The prevalence of this infection in the under-15 population highlights the need for effective strategies for prevention, early diagnosis, and appropriate treatment. Implementing vaccination programs, awareness campaigns, and improving health conditions, especially in the most affected areas, are essential to reduce the incidence and impact of meningitis in this vulnerable population.

**228. EPIDEMIOLOGICAL PROFILE OF MENINGITIS IN THE STATE OF MARANHÃO BETWEEN 2014 AND 2023**

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<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Meningitis is a disease that affects the meninges, which correspond to the layers that surround and protect the brain and spinal column. It can be of bacterial, viral and fungal origin, the most common being caused by viruses and bacteria. In this sense, it is worth analyzing the incidence of cases in the state of Maranhão considering its variables. **METHODS:** This is a descriptive epidemiological study in the period 2014-2023 in the state of Maranhão, with data obtained from the Notifiable Diseases Information System (SINAN), from the Unified Health System Computer System (DATASUS), having as variables sex, race and age group. **RESULTS:** In the period analyzed, 1327 cases of meningitis were reported in the state of Maranhão, with a greater predominance in the year 2023 (n = 165). Of these, 752 cases are in males and 555 in females, with the highest prevalence in 2015 (n=92) in men, and in women, 2023 was the year with the highest number of notifications (n=76). Regarding race, self-declared brown people have the highest occurrences (n=1062), followed by white (n=164), black (n=68), yellow (n=7) and indigenous (n=4). In addition, the age group between 20-39 years old has the highest cases (n=312), followed by the age group of children under 1 year old (n=264), with the age group of 80 years old and over having the lowest number of notifications (n=10). **CONCLUSION:** The epidemiological profile of the state of Maranhão shows the prevalence of meningitis in males, and it is expected that brown people are the most affected, since they have a higher percentage of self-declared people of this color, coinciding with the findings of this research. The age group with the highest prevalence is between 20-39 years old, a worrying factor for society, since this age group is also economically active. Therefore, public policies are needed to prevent this disease.

**229. EPIDEMIOLOGICAL PROFILE OF MORTALITY DUE TO MALIGNANT LARYNGEAL NEOPLASM IN MARANHÃO BETWEEN 2013 AND 2022**

João Marcos dos Santos de Andrade<sup>1</sup>; Viviane da Silva de Sousa<sup>1</sup>; Andressa de Castro Moraes<sup>1</sup>; Vitor César de Abreu Praseres<sup>1</sup>; Sueli de Souza Costa<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Laryngeal cancer is a malignant neoplasm commonly associated with persistent hoarseness, sore throat, difficulty swallowing, and persistent coughing, often seen in patients with a history of smoking, alcoholism, and exposure to chemical substances. In this context, considering the public health issue and the prevalence of risk factors, the objective is to outline an epidemiological profile of mortality due to malignant laryngeal neoplasm in Maranhão compared to the Northeast region. **METHODS:** This is a descriptive and analytical epidemiological study covering the period from 2013 to 2022 in Maranhão, with data obtained from the Cancer Information System (SISCAN), using variables such as sex, race, and age group. **RESULTS:** During the analysis period, 9,864 deaths due to malignant laryngeal neoplasm were recorded in the Northeast, with 2022 being the year with the highest incidence (1,094 cases). In Maranhão, 580 deaths were recorded, making it the sixth state in the region with the highest incidence, with 2021 having the highest number (68). Males were the most affected in the Northeast, with 8,349 occurrences, representing 84% of deaths, and in Maranhão, with 477 deaths, representing 82% of the total. Regarding race, mixed-race individuals were the most affected, with 6,217 cases (63% of deaths) in the region and 389 in the state (67% of deaths), while the Asian race had the fewest cases, with 18 and 2 cases, respectively. In terms of age, the 60-69 age group had the highest mortality in Maranhão (158) and in the Northeast (2,889). **CONCLUSION:** The data indicate a significantly higher prevalence of deaths among men and the elderly, both in Maranhão and the Northeast, as smoking and alcoholism, the main risk factors for laryngeal cancer, are more prevalent among males. Additionally, men are often employed in occupations that expose them to carcinogenic and harmful chemicals. Finally, the reduced recovery capacity, socioeconomic inequality, and difficulty accessing healthcare explain the mortality rates among the elderly and mixed-race individuals. Therefore, primary prevention efforts targeting risk factors and improved access to healthcare services for vulnerable populations are necessary.



**230. EPIDEMIOLOGICAL PROFILE OF CONGENITAL SYPHILIS FROM 2013 TO 2023 IN MARANHÃO**

Thalia Diniz da Silva<sup>1</sup>, Andressa De Assis Barbosa Costa Oliveira<sup>1</sup>, Laio Vinicius Spindola De Araujo<sup>1</sup>, Ana Clara Coutinho De Oliveira<sup>1</sup>, Êmilly Araújo Costa Lucena<sup>1</sup>, Tarsila Pinheiro Brás<sup>1</sup>, Andrea Borges Araruna De Galiza<sup>1</sup>.

<sup>1</sup> Faculty of Medical Sciences AFYA – Santa Inês

**INTRODUCTION:** Syphilis is a curable infection caused by the *Treponema pallidum* bacteria. It can be transmitted through unprotected sexual intercourse, blood transfusions and vertical transmission, i.e. when it occurs from the mother with active infection to the baby intrauterinely, during childbirth or through contact with lesions. Congenital Syphilis (CS) is considered an easily preventable disease, and its effects on the fetus can be minimized or eliminated when the disease is early diagnosed and the correct treatment is used. In view of this, this study aims to describe the epidemiological profile of CS in the state of Maranhão, from 2013 to 2023. **METHODS:** An epidemiological cross-sectional longitudinal observational study of the ecological type was carried out. The data used in the study was obtained from the Notifiable Diseases Information System (SINAN), accessible on the website of the Unified Health System Database (DATASUS). It is available on the public domain platform and therefore does not need to be submitted to the human research ethics committee. **RESULTS:** During the 11-year analysis period, there were 5.133 children reported with CS. There has been an exponential increase in the number of reported cases over the years, with the peak incidence occurring in 2018, when 823 cases were reported. São Luís stood out as the health region with the highest number of cases in this period, accounting for 379 cases. After 2018, there was a decrease in notifications, culminating in 272 cases reported in 2023. It was also found that 4.442 women underwent prenatal care during pregnancy, while 574 did not. The prenatal status of other pregnant women was reported as ignored or blank. In view of the above, it can be seen that in approximately 85% of CS cases, prenatal care was carried out, which suggests that the diagnosis was made, but there was poor adherence to treatment, which may be due to the pregnant woman or her partner. **CONCLUSION:** This research revealed an exponential increase in the number of CS cases in Maranhão between 2013 and 2018, followed by a gradual decrease until 2023. São Luís was the health region with the highest number of CS cases. This highlights the need for more effective actions, especially in prenatal care, including syphilis testing for all pregnant women, as well as timely diagnosis and treatment of pregnant women and their partners, with the aim of reducing vertical transmission.

**231. EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS IN CHILDREN UNDER 15 IN MARANHÃO (2014-2024)**

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**INTRODUCTION:** Tuberculosis (TB) is a disease caused by *Mycobacterium tuberculosis*, and is the most common pulmonary form in the world population, ranging from 10 to 18 cases/day in Brazil. This study aimed to analyze the epidemiological profile of TB cases between 2014 and 2024 in patients under the age of 15 in the state of Maranhão. **METHODS:** This is an epidemiological, retrospective, quantitative and descriptive study based on data provided by the Department of Information Technology of the Unified Health System (DATASUS). The study population consisted of tuberculosis cases in Maranhão between 2014 and 2024 in individuals under the age of 15. The correlated variables were: year of care, confirmed cases, age group, gender, pulmonary and extrapulmonary form. **RESULTS:** In the period studied, 694 confirmed cases of tuberculosis in children under 15 were recorded in the state of Maranhão, with the year 2023 standing out as 11.6% of confirmed cases. Females accounted for 49.2% of records, with 2018 having the highest number of diagnoses, with 12.8% of cases in females. The male group accounts for 50.7% of notifications, with 2014 standing out as the year with the highest number of diagnoses, totaling 12.7% of cases in males that year. Regarding the clinical form of the disease, 74.7% cases were confirmed as Pulmonary Tuberculosis, while 23.1% cases were classified as Extrapulmonary. **CONCLUSION:** It is therefore essential to plan health services, with a focus on training professionals, with a view to early diagnosis and appropriate treatment of the affected population. In summary, the epidemiological profile of tuberculosis in children under 15 in Maranhão over the last 10 years reflects a complex interaction of biological, socio-economic and public health factors. A detailed analysis of these factors is essential for developing effective strategies to control and prevent childhood tuberculosis in the state.

**232. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR GASTRIC CANCER IN PARÁ AND BRAZIL (2019-2023)**

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**INTRODUCTION:** Gastric cancer (GC) is one of the most common malignancies worldwide, being responsible for more than 20 thousand deaths in individuals over 20 years of age in the last 5 years in Brazil. In the state of Pará, GC is the second most common type of cancer in men and the third in women. The pathology is more common in males and is related to the presence of the *Helicobacter pylori* bacteria in the stomach, in addition to being associated with poor eating habits, tobacco use and a family history of GC. Therefore, the study aims to analyze the profile of hospitalizations for malignant neoplasia of the stomach in the state of Pará compared to the national profile in the last 5 years. **METHODS:** The research corresponds to a cross-sectional, descriptive and analytical study with a quantitative approach using data obtained from the Ministry of Health/Hospital Morbidity of the Unified Health System - Hospital Admissions System (SIH/SUS), available at the Information and IT Department of the SUS (DATASUS), from 2019 to 2023. Data were collected from individuals over 20 years of age nationwide, as well as in the state of Pará, aiming for subsequent comparative analysis. **RESULTS:** After data collection carried out by DATASUS, there were 162,209 hospitalizations for gastric cancer throughout Brazil, between 2019 and 2023, with 3,180 hospitalizations in the state of Pará alone. Furthermore, it is worth highlighting that, of the total number of hospitalizations in the Pará, 2,147 are male patients, showing that this predominance follows the national trend in which 103,598 hospitalizations are male patients. Furthermore, it is noteworthy that the age group between 60 and 69 years old is the most affected by stomach malignancy in adults over 20 years old, not only in Pará (28.95%) but also in Brazil (31.28 %), showing this predominance in all 5 years of analysis of this research. **CONCLUSION:** In summary, gastric malignant neoplasms appear uniformly when comparing the state of Pará with the national scenario. It is clear that there is a considerable predominance of cases in males and elderly patients in both contexts. Therefore, it is essential that the competent bodies investigate the local particularities that influence this proportion in Pará, such as local lifestyle and the genetic profile of the population affected by GC in the state, in order to create policies that are more appropriate to the needs of Primary Care in Pará.

**233. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO ARTERIAL EMBOLISM OR THROMBOSIS IN BRAZIL**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Arterial thrombosis and embolism are serious cardiovascular conditions that can lead to severe complications and even death. Arterial thrombosis occurs when a blood clot forms in an artery, while arterial embolism occurs when a clot travels and blocks an artery in a different location. This study focuses on the analysis of hospitalizations due to these conditions in Brazil between 2019 and 2023, aiming to elucidate the epidemiological profile of patients with these diseases, and to encourage further research and interventions surrounding arterial thrombosis and embolism. **METHODS:** This is a descriptive study with a quantitative approach and a retrospective analysis of records obtained between 2019 and 2023. The data was collected from the Hospital Information System of SUS (SIH-SUS), using the TABNET database. The data analyzed corresponds to hospitalizations classified according to the International Classification of Diseases, 10th revision (ICD-10). The selected codes were ICD-10 I74 (arterial thrombosis or embolism), and the variables analyzed were age, gender, and race, for the period from 2019 to 2023. **RESULTS:** The data analysis revealed that 122,851 hospitalizations occurred due to arterial thrombosis or embolism between 2019 and 2023. In the age category, the group aged 60 to 69 years had the highest number of cases, with 35,683 (29%). This was followed by the 70 to 79 years group, with 30,648 cases. Regarding gender, males presented the majority of cases, with 70,230 (57%). In terms of race, individuals identified as white had the highest number of cases, with 51,662, followed by individuals identified as black, with 43,658 cases. **CONCLUSION:** Thus, older age groups presented the highest number of cases of these diseases. Additionally, gender showed a predominance of the condition in males. Furthermore, individuals identified as white and black showed higher prevalence in absolute numbers when it comes to the occurrence of these diseases.

**234. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR ACUTE MYOCARDIAL INFARCTION IN SOUTHERN MARANHÃO**

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**INTRODUCTION:** Acute Myocardial Infarction (AMI) is characterized by myocardial injury secondary to ischemia, and it presents with high incidence and morbidity-mortality rates. Early symptom recognition and immediate interventions are crucial to minimize damage and improve clinical outcomes. This study aimed to evaluate the epidemiological profile of hospitalizations due to acute myocardial infarction in the southern macro-region of Maranhão from 2013 to 2023. **METHODS:** This descriptive, retrospective, and quantitative study was conducted using data from the Hospital Information System of the Unified Health System (SIH/SUS), obtained through DATASUS. The study analyzed the number of hospitalizations, deaths, and mortality rates due to AMI during the period, correlating variables such as age group, sex, and race/ethnicity. **RESULTS:** The analysis revealed 3,947 hospitalizations and 495 deaths due to AMI in the southern macroregion of Maranhão. The municipality of Imperatriz accounted for 70.1% of the hospitalizations, likely due to its population density and its role as a regional hub for healthcare services in southern Maranhão, as well as possible underreporting. A higher prevalence of hospitalizations and deaths was observed in individuals of mixed race (35.3%), those in their sixties (27.6% and 29.6%, respectively), and males (63.3% for hospitalizations and 58.5% for deaths), consistent with findings in the literature. The predominance among men is attributed to factors such as lower healthcare-seeking behavior and habits like smoking, poor diet, and alcohol consumption. The overall mortality rate was 12.54, with the highest rates recorded in Barra do Corda (20.45), among octogenarians (24.20), and in females (14.18), highlighting territorial inequalities in healthcare access, increased mortality risk with aging, and hormonal influences. **CONCLUSION:** Given the prominent role of Imperatriz, it is essential to intensify monitoring and interventions in this area, focusing on improving access to healthcare services, prevention, and diagnosis, particularly for high-risk groups. Underreporting distorts the true prevalence of the disease and hinders the development of effective health strategies, underscoring the need to strengthen surveillance and reporting systems. A comprehensive approach is therefore crucial to address the high prevalence of AMI in the southern Maranhão population.

**235. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR MENTAL DISORDERS AND SUBSTANCE USE**

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**INTRODUCTION:** Mental and behavioral disorders resulting from the use of psychoactive substances (PAS) encompass a series of clinical manifestations resulting from the consumption of one or more substances. Among the states of Northeastern Brazil, Maranhão stands out for having one of the highest rates of psychiatric hospitalizations related to mental and behavioral disorders associated with the use of these substances. The aim of this study is to draw up an epidemiological profile of hospitalizations for mental and behavioral disorders due to the use of psychoactive substances in São Luís between 2013 and 2023. **METHODS:** This study is characterized as an ecological study, carried out by collecting data from the Hospital Information System of the Unified Health System (SIH-SUS), available on the Ministry of Health's TABNET website. Patient cases were analyzed using variables related to color/race, gender and age group. **RESULTS:** In the period from 2013 to 2023, across the entire health network, 12,359 hospitalizations were carried out. The years 2022 and 2013 were respectively the highest and lowest in terms of the number of hospitalizations, with 1,562 and 454 reported cases. Regarding the gender and color/race variables, males were in the majority, accounting for 91.08% of all cases, and the dominant color/race in hospitalized patients were self-declared browns, making up 77.77% of the total. In addition, with regard to the age group variable, it was noted that the 20-29 age group was the dominant one, accounting for 35.65% of the total number of cases. **CONCLUSION:** In short, it is essential that the relevant public institutions step up their health education efforts aimed at preventing the consumption of psychoactive substances, thus promoting public awareness of the negative consequences associated with these substances. Further studies are suggested in order to broaden knowledge on the subject.

**236. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO VARICOSE VEINS IN MARANHÃO IN THE LAST 10 YEARS**

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**INTRODUCTION:** Varicose veins (VV), commonly known as varicose, are characterized by the dilation and deformation of veins, especially those that are superficial and located in the lower limbs. Varicose veins develop when the venous valves, which are responsible for regulating blood flow, do not function properly, leading to increased venous pressure and dilation of the veins. Thus, the causes for the inefficient functioning of these valves include mainly age, sex, and lifestyle. Given the complications of the high prevalence and the impacts on public health due to VVs, the present study aims to outline the epidemiological profile of hospitalizations due to varicose veins in the state of Maranhão over the past 10 years. **METHODS:** This is a cross-sectional, descriptive, quantitative study, in which data were collected using the TabNet Win 32 3.0 tool, provided by the Information Technology Department of the Unified Health System (DATASUS). The research focused on the analysis of hospital admission data according to the International Classification of Diseases, 10th revision (ICD-10), selecting the ICD-10 code I83 (varicose veins of the lower extremities). The variables sex, age group, and skin color of the patients were considered, covering the period from April 2014 to April 2024. The data were extracted, organized, and processed in Microsoft Excel 2016 software for the performance of descriptive statistical analyses. **RESULTS:** The data obtained show that between April 2014 and April 2024, 4,639 hospitalizations due to varicose veins were recorded in Maranhão, with a higher incidence of cases in 2022 (609). Regarding the variables analyzed, a higher occurrence of cases was observed among women (3,366 cases, 73% of the total) than among men (1,273 cases, 27% of the total). Additionally, the age group between 40 and 49 years presented the highest number of cases (1,190, 26% of the total) compared to the others. Finally, regarding skin color/race, brown people were hospitalized for varicose veins more than others (2,845 cases, 61% of the total). **CONCLUSION:** The study demonstrates that the epidemiological profile of hospitalizations due to varicose veins is prevalent in women, in the age group of 40 to 49 years, and in brown people. Therefore, these data highlight the need for prevention and treatment strategies focused on the outlined profile, seeking to reduce the complications of high prevalence and the impacts on public health.

**237. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO VARICOSE VEINS IN MARANHÃO IN THE LAST 10 YEARS**

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**INTRODUCTION:** Acute Myocardial Infarction (MI) is characterized as a critical condition that occurs when the blood flow in part of the heart's arteries is blocked for an extended period, causing damage to the heart muscle. Additionally, MI is one of the leading causes of global mortality, associated with risk factors such as hypertension, high cholesterol, smoking, and sedentary lifestyle. Symptoms include angina, dyspnea, nausea, and sweating. Rapid detection and treatment are crucial to increase survival chances and minimizing heart damage. Therefore, it is essential to analyze the incidence and epidemiological profile of deaths due to MI in Maranhão between 2012 and 2022. **METHODS:** This is an observational, retrospective, quantitative study with data collected from the DATASUS platform regarding the incidence of MI deaths, age group, gender, and race/skin color between 2012-2022 in Maranhão. **RESULTS:** During the research period, there was an incidence of 27 MI deaths per 100,000 inhabitants in Maranhão, with a total of 1,894 notifications. The age groups with the highest incidence were: 80 years and older (n=446), 70 to 79 years (n=532), and 60 to 69 years (n=507), with males being more prevalent (1,090) compared to females (n=804). Regarding race/skin color, in Maranhão, brown-skinned individuals (33,21%) predominated among MI deaths, followed by yellow-skinned (5,22%) and white-skinned individuals (2,85%). **CONCLUSION:** Given the aforementioned circumstances, it is observed that the prevalence of MI deaths in Maranhão was 1.894 during the period from 2012 to 2022. Additionally, the most affected age group consists of individuals over 70 years old. Moreover, males and individuals of brown and yellow skin color are the most prevalent in the statistics. Thus, MI deaths represent a public health warning, requiring continuous prevention and control efforts.

**238. EPIDEMIOLOGICAL PROFILE OF MENINGITIS IN THE STATE OF MARANHÃO FROM 2019 TO 2023: A CROSS-SECTIONAL STUDY**

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**INTRODUCTION:** Meningitis consists of an inflammation of the membranes surrounding the central nervous system and is generally caused by bacterial infection. Although the disease is considered eradicated in Brazil, there has been an increase in reported cases of meningitis, which may indicate a failure in vaccination coverage, especially among children. Thus, the objective of this study is to describe the epidemiological profile of meningitis cases in the state of Maranhão over the period from 2019 to 2023. **METHODS:** This is a cross-sectional, descriptive, and retrospective study. Secondary data were obtained from the Sistema de Informação de Agravos de Notificação (SINAN) of the Departamento de Informação e Informática do Sistema Único de Saúde (DATASUS). To describe the confirmed cases of meningitis in the period from 2019 to 2023 in the state of Maranhão, the following variables were considered: age group, ethnicity, sex, etiology, and confirmation criteria. **RESULTS:** During the analysis period, a total of 546 cases of meningitis were recorded. Regarding age group, a higher occurrence was observed in children under 1 year of age (n=155; 28.39%), followed by a considerable distribution among adults aged 20 to 39 years (n=95; 17.40%). Additionally, a higher prevalence was noted in the brown ethnic group (n=446; 81.68%), followed by white individuals (n=62; 11.36%). There was also a greater occurrence of cases among men (n=297; 54.40%). In terms of etiology, despite the dominance of the category "Unspecified Meningitis" (n=264; 48.35%), viral meningitis (n=101; 18.50%) and bacterial meningitis (n=78; 14.29%) were notable. The most significant confirmation criterion was the cytochemical analysis (n=241; 44.14%), followed by clinical criteria (n=169; 30.95%). **CONCLUSION:** A higher number of cases of meningitis was observed among children under one year of age, particularly among males and brown individuals. The significant number of cases without specified etiology is due both to the prominence of clinical diagnosis, which makes the identification of the etiological agent difficult, and to the inefficiency in data recording by health services. Thus, the results emphasize the importance of accurate diagnoses and public health actions to control morbidity and mortality indicators associated with meningitis.

**239. EPIDEMIOLOGICAL PROFILE OF SEXUAL VIOLENCE VICTIMS IN THE NORTHEASTERN REGION, FROM 2018 TO 2022**

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**INTRODUCTION:** Sexual violence is defined as any act that forces another person to witness or engage in sexual interactions, perpetrated by someone in a position of power or using physical force to intimidate, coerce, or exert psychological influence. This form of violence causes profound psychological, emotional, and social consequences for the victims. In Brazil, the Northeastern region stands out due to the high prevalence of reported cases, highlighting the need to understand the epidemiology of this issue to formulate public policies that can prevent and mitigate its impact. Therefore, this study aims to describe the epidemiological profile of sexual violence victims in the Northeastern region of Brazil from 2018 to 2022. **METHODS:** This is a descriptive epidemiological study with a cross-sectional design, utilizing secondary data from the Department of Health Informatics of the Unified Health System (DATASUS). The study is restricted to the Northeastern region, covering the period from 2018 to 2022, and includes variables such as state of occurrence, sex, age group, education level, and race/ethnicity. **RESULTS:** During the study period, a total of 42,799 cases were reported, with the state of Pernambuco accounting for the highest number of incidents (n=11,280). Females represented 92.7% (n=39,694) of the victims, compared to males at 7.3% (n=3,101). Regarding age distribution, 48.28% (n=20,665) of the victims were between 10 and 19 years old. Concerning education level, among those who declared it, the majority had not completed middle school (n=9,768). Lastly, in terms of race/ethnicity, 67.97% (n=29,092) of the victims identified as mixed-race (pardo). **CONCLUSION:** The analysis of the epidemiological data on sexual violence in the Northeastern region of Brazil from 2018 to 2022 reveals a concerning national scenario. The predominance of female victims and the vulnerability of adolescents aged 10 to 19 underscore the need for targeted public policies. The higher incidence among individuals with lower educational attainment and the predominance of mixed-race victims point to a context of social inequality. This study reinforces the importance of focused attention and coordinated actions to reduce the incidence of this issue.

**240. EPIDEMIOLOGICAL PROFILE OF TRAUMATIC AMPUTATION VICTIMS FROM 2014 TO 2023 IN MARANHÃO**

Gibson Emmanuel Moura Goes<sup>1</sup>, André Silva Rocha<sup>1</sup>, Wanderson José Cutrim Ferreira<sup>1</sup>, Antônio Vitor Bezerra Fernandes<sup>1</sup>, Cassio Henrique de Souza<sup>1</sup>.

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**INTRODUCTION:** Traumatic amputation is the accidental cutting of one or more limbs of the body, generally caused by traffic accidents, work accidents or gunshot wounds. When this occurs, the priority is the risk to the patient's life and, as it is a sudden event, care for psychological issues. In this sense, the objective was to outline the profile of patients hospitalized for traumatic amputation in Maranhão from 2014 to 2023, based on data from the Department of Informatics of the Unified Health System (DATASUS). **METHODS:** This is a descriptive and quantitative epidemiological study based on data collection from DATASUS, from 2014 to 2023 in Maranhão. The variables studied were: sex, race, age group, spatial and temporal distribution and mortality rate. As this is secondary data, approval from the Ethics Committee was not necessary. **RESULTS:** In the period studied, there were 10,535 cases of traumatic amputations, with the highest percentage in 2014, equal to 11.37% (n=1198), and the lowest in 2017, with 8.74% (n=921). Males were the most affected, with 73.42% (n=7735). As for race, the self-declared brown population had the majority of cases, around 37.28% (n=3928). Regarding the age group, the group aged 60 to 69 suffered the most, with 17% (n=1790). Regarding spatial distribution, the municipalities of São Luís, Presidente Dutra and Codó led the occurrences, with 44.42% (n=4680), 9.46% (n=997) and 4.02% (n=424), respectively. There was a mortality rate of 4.93%, with a higher rate among females (7.71%), white people (3.33%), those aged 80 or over (14.38%), in addition to to have a higher percentage in 2021 (5.56%). **CONCLUSION:** Considering the data collected, there is a constancy in the number of annual occurrences with no signs that point to a regression. Therefore, it is understood that the low variation over a decade reflects the existing challenge in mitigating this problem. In this scenario, the prevalence of a male epidemiological profile is configured, belonging to the brown race, in an age group between 60 and 69 years old, living in medium and large urban centers. Furthermore, the importance of this work stands out for quantifying and mapping the occurrence of these traumatic episodes, providing guidance for emergency teams and rescuers in general, as well as regarding the possible need for investments on the part of public authorities to remedy all demands of these regions, aiming for quick and effective service.

**241. EPIDEMIOLOGICAL PROFILE OF AIDS IN PATIENTS IN MARANHÃO FROM 2019 TO 2023**

Shen Bruna Pagung Costa<sup>1</sup>, Rebeca Fideles Camelo Cardoso<sup>1</sup>, Sara Passold Martins<sup>1</sup>, Victoria de Jesus Martins Fonseca<sup>1</sup>, Mylena Andréa Oliveira Torres<sup>1</sup>.

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**INTRODUCTION:** AIDS (Acquired Immunodeficiency Syndrome) is a condition that represents the most advanced stage of HIV (Human Immunodeficiency Virus) infection. Thus, the weakening of the immune system due to the lack of proper treatment can allow the appearance of opportunistic diseases that characterize AIDS. In this sense, HIV is transmitted predominantly through bodily fluids, such as semen, blood and vaginal secretions, and there is also a risk of transmission from mother to child, whether during pregnancy, childbirth or breastfeeding. Risk factors for this condition include: vaginal or anal sex without a condom, receiving unsafe injections, tissue transplants and blood transfusions, as well as already having another sexually transmitted infection (STI). The objective of this study was to evaluate the epidemiological profile of AIDS patients in Maranhão over the last 5 years. **METHODS:** This is a retrospective epidemiological study, based on data from the Department of Information Technology of the Unified Health System (DATASUS), covering the period from 2019 to 2023. The variables used were: residence, sex, race/color, age group and mortality. **RESULTS:** According to data from DATASUS, approximately 5,237 cases of AIDS were registered in Maranhão, in relation to individuals residing in the state, from 2019 to June 2023. A total of 826 new cases diagnosed in Maranhão were registered in 2022, being the third highest number of records in the Northeast. According to the data researched, the highest incidence occurred in males with 68% (n = 3,565). Regarding races, 70.7% (n = 3,703) were ignored and 21.1% (n = 1,106) were brown. Regarding age group, 31.2% (n=1,634) are between 30 and 39 years old. In 2019, when analyzing mortality by each federation unit, 11 of them had a coefficient higher than the national one, which was 4.1 deaths per 100 thousand inhabitants, with Maranhão having a coefficient of 5.7 deaths per 100 thousand inhabitants. **CONCLUSION:** Therefore, it is possible to conclude that despite significant advances in HIV treatment, AIDS continues to be a problem in Maranhão's public health. Therefore, it is essential to identify the epidemiological profile of this condition so that assertive public policies can be directed, as well as greater monitoring and multidisciplinary intervention in the continuous search for reducing cases and controlling the transmission of this pathology.

**242. EPIDEMIOLOGICAL PROFILE OF MORTALITY FROM COLORECTAL CANCER IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Colorectal cancer is a malignant neoplasm that affects the colon and rectum, being one of the leading causes of cancer-related deaths worldwide. In 2020, global estimates indicated over 1.9 million new cases, making it the third most common cancer globally. In Brazil, it represents a significant public health concern due to its high prevalence and mortality rates, as colorectal cancer is the third most common cancer among men and the second most common among women in the country. This study aims to analyze the epidemiological profile of colorectal cancer mortality in the state of Maranhão, identifying associated risk factors and trends over recent years. **METHODS:** This is a comparative, quantitative, cross-sectional, and retrospective study on colorectal cancer mortality in the state of Maranhão, by health regions and their variables, during the period from 2013 to 2022. Data were collected through the Department of Informatics of the Unified Health System (DATASUS), using the International Statistical Classification of Diseases and Related Health Problems (ICD-10) codes C18, C19, and C20, which correspond to malignant neoplasms of the colon, rectosigmoid junction, and rectum, respectively. The study analyzed deaths by place of residence and variables such as sex, race/ethnicity, education level, age group, number of deaths, and mortality rate. **RESULTS:** During the analyzed period, 1,866 deaths were identified in the state of Maranhão, with the highest numbers in the health regions of São Luís (777), Imperatriz (203), and Itapecuru-Mirim (75). Between 2013 and 2022, mortality was higher among females (51.6%), with the highest incidence in the 60 to 69 age group (24.75%), predominantly among individuals of mixed race (59.32%), and most had 8 to 11 years of education (22.88%). Regarding the mortality rate, it was observed that in 2013, the rate was 2.1 per 100,000 inhabitants, while in 2022, this rate increased to 2.6 per 100,000 inhabitants. **CONCLUSION:** Determining the epidemiological profile of colorectal cancer in Maranhão is crucial for formulating public policies and developing strategies for early diagnosis and timely therapeutic intervention. States with high mortality rates require special attention, including investments in healthcare, education, and professional training to reduce regional disparities and improve patient quality of life and survival.

**243. EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS CASES IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*, better known as Koch's bacillus, which mainly affects the lungs and is transmitted mainly through coughing. Furthermore, within the symptomatological framework, it is possible to find anorexia, dyspnea, fatigue and bloody secretion. The disease is considered a public health problem in Maranhão, as it has a high incidence, that is, rates higher than the national average, incomplete treatment, due to low adherence and abandonment, and facilitated dissemination due to the following factors: inadequate housing, malnutrition and pre-existing comorbidities. The present study aimed to evaluate the tuberculosis profile in Maranhão from 2018 to 2023. **METHODS:** This is an epidemiological study with a retrospective analysis and quantitative approach, in which data were taken from DATASUS and the Notifiable Diseases Information System (SINAN) for the selected years, with the following variables: sex, age group, race and type. **RESULTS:** During the proposed period, 17,276 cases were evaluated, 2,649 in 2018, 2,668 in 2019, 2,489 in 2020, 2,897 in 2021, 3,208 in 2022 and 3,365 in 2023. There was a higher incidence of tuberculosis in the state of Maranhão in brown people, with 71.3% (n=12,321). Regarding sex, males accounted for 68.2% (n=11,779), demonstrating predominance. Regarding age group, 42.9% (n=7,407) of individuals were between 20 and 39 years old, which characterizes the economically active population (EAP). Furthermore, the most frequent type is pulmonary, which affected 15,741 cases of the total studied. **CONCLUSION:** Therefore, there was a significant increase in the number of cases in the years studied, which may be related to the greater notification, progress that showed a greater incidence of ASD, warning of a possible economic problem in the affected regions. In addition, due to low adherence to treatment and lack of persistence, there is drug resistance, greater transmission and promotion of stigma and discrimination, since the individual, by postponing or abandoning treatment, presents worsening of the disease and ends up being socially isolated, amplifying resistance in seeking intervention.

**244. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO DROWNING IN BRAZIL FROM 2014 TO 2023**

Isadora Leal Tavares Silva<sup>1</sup>, Wanderson José Cutrim Ferreira<sup>1</sup>, Pedro Víctor Aguiar Carvalho<sup>1</sup>, João Victor Cunha Silva<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, Santiago Servin<sup>1</sup>.

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**INTRODUCTION:** Drowning is defined as a type of trauma in which there is aspiration of non-body fluid, caused by submersion or immersion. It is a significant cause of hospitalization and mortality, particularly among young people, making it important to understand the epidemiology of drowning to develop prevention measures aimed at reducing the number of hospitalizations and deaths from this type of trauma. In light of this, this study aims to describe the epidemiology of drowning-related hospitalizations in Brazil from 2014 to 2023. **METHODS:** This is a descriptive epidemiological study with a quantitative approach, conducted through data collection from the Department of Information and Informatics of the Unified Health System in Brazil (DATASUS) from 2014 to 2023. The variables used were: number of hospitalizations, health region, sex, race, age group, cause, and mortality rate. **RESULTS:** There were 7,096 hospitalizations due to drowning during the specified period, with the years 2016 and 2017 being the leaders in occurrences, accounting for 15.78% (n=1,120) and 14.27% (n=1,013) of total hospitalizations, respectively. In terms of spatial distribution, the Southeast Region accounted for 71.47% (n=5,072) of cases, followed by the Northeast and South, with 12.64% (n=897) and 7.45% (n=529) of hospitalizations, respectively. Minas Gerais had the highest rate, accounting for 40.76% (n=2,893) of national cases. Males represented 66.22% (n=4,699) of total hospitalizations, showing an incidence 96% higher than that of females. Regarding race, the white population stood out with 38.23% (n=2,713) of hospitalizations. The age group of 20 to 29 years accounted for 12.33% (n=875) of cases. In terms of causes, 49.74% (n=3,530) were due to drowning and submersion in pools, 20.78% (n=1,475) from submersion in bathtubs, and 14.23% (n=1,010) from drowning in natural waters. The mortality rate was 7.32% (n=520). **CONCLUSION:** The data highlights a high incidence of drownings, especially in the Southeast Region, with particular emphasis on the state of Minas Gerais. The predominance of male victims, primarily young adults, indicates the need for targeted interventions, particularly for these groups. The high incidence of drownings in pools underscores the importance of safety measures in these environments, whether in private or public settings. Therefore, this study emphasizes the urgency of interventions for the prevention of drownings and, consequently, the associated mortality.

**245. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO ATHEROSCLEROSIS IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Atherosclerosis is characterized by the formation of plaques in the arterial walls, with endothelial lesions, accumulation of lipoproteins, recruitment of inflammatory cells, and proliferation of smooth muscle cells, resulting in stenosis and arterial dysfunction. It is one of the leading causes of death worldwide, with an estimated 17.9 million people dying from cardiovascular diseases each year. The present study seeks to investigate and analyze the epidemiological profile of hospitalizations due to atherosclerosis in Maranhão over the past 5 years. **METHODS:** A descriptive and retrospective epidemiological study was conducted using data extracted from the Hospital Admission System (SIH) database, made available by the Department of Informatics of the Brazilian Unified Health System (DATASUS). The variables analyzed were: number of hospitalizations, atherosclerosis ICD-10 (I70), age group, deaths, sex, ethnicity, and health macroregion from January 2019 to December 2023. The "Google Sheets" application was used for data tabulation and analysis. **RESULTS:** A total of 785 hospitalization cases due to atherosclerosis were recorded in Maranhão from 2019 to 2023, representing an average of 157 per year ( $\pm 52.05$ ). Among these, the most affected age group was 60 to 69 years, with 238 cases (30.31%), and males, with 459 cases (58.47%), were the most affected gender. Regarding females, there were 326 hospitalizations (41.53%). In terms of race/ethnicity, 416 hospitalized individuals (52.99%) had no information recorded, followed by 315 (40.12%) recorded as mixed race, 34 (4.33%) white, and 11 (1.41%) black. Furthermore, the North health macroregion reported 747 hospitalized cases (95.15%). Regarding the type of admission, 409 were emergency cases (52.10%) and 376 were elective (47.89%). As for deaths among the hospitalized individuals, 21 deaths were recorded, presenting a mortality rate of 2.67 per 100 cases. Of these, 10 male deaths (47.62%) and 11 female deaths (52.38%) were recorded, with individuals aged 80 years and above being the most affected, with 9 cases (42.85%). **CONCLUSION:** Based on the presented data, it can be inferred that atherosclerosis is a significant condition in terms of hospitalizations in Maranhão, with a notable number of hospitalizations and mortality among the elderly and male populations. Therefore, the described epidemiology provides important information for planning and implementing preventive measures by the public health system in the state.



**246. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO VIRAL ENCEPHALITIS IN BRAZIL FROM 2019 TO 2023**Rômulo Guilherme Costa de Amorim<sup>1</sup>, Thercyo Ariell Costa Pereira<sup>1</sup>.<sup>1</sup> Faculty of Medicine Pitágoras - Bacabal

**INTRODUCTION:** Viral encephalitis is an inflammation or irritation of the brain parenchyma caused by viral invasion of the central nervous system (CNS). This condition is induced by viral etiological agents, such as herpes viruses (1 and 2), arboviruses, poliovirus and enteroviruses. Diagnosis is often performed through the analysis of cerebrospinal fluid (CSF) to investigate the viral agent along with brain imaging conducted via magnetic resonance imaging (MRI). Thus, the aim of this study is to analyze the epidemiological profile of hospitalizations for viral encephalitis in Brazil between 2019 and 2023.

**METHODS:** This study is a cross-sectional, descriptive, quantitative, and retrospective analysis based on data provided by the Hospital Information System of the Unified Health System (SIH/SUS), made available by DATASUS, regarding the 9,820 hospitalizations for viral encephalitis in Brazil from 2019 to 2023. The variables analyzed included age group, Brazilian regions, sex and color/race. **RESULTS:** A total of 9,820 cases of hospitalizations for viral encephalitis were recorded in Brazil between 2019 and 2023. The Northeast region reported the highest number of hospitalizations, with 4,039 cases (≈41.12%), followed by the Southeast with 2,531 (≈25.77%), South with 1,723 (≈17.54%), North with 845 (≈8.61%), and Central-West with 682 (≈6.95%). Males predominated with 5,253 cases (≈53.5%) compared to females with 4,567 (≈46.5%). The most prevalent color/race was brown (parda) at 5,028 cases (≈51.2%), followed by white (branca) at 2,488 (≈25.33%). The predominant age group was between 1 to 4 years, with 1,784 hospitalizations (≈18.16%).

**CONCLUSION:** The epidemiological profile of hospitalizations for viral encephalitis in Brazil from 2019 to 2023 demonstrated a higher prevalence in males, among individuals aged 1 to 4 years, of brown color/race, and in the Northeast region. Furthermore, the year 2019 reported the highest number of cases, totaling 2,473 (≈ 25.18%). It is essential to combat the viral agents contributing to the morbidity and hospitalizations of this disease, as well as to provide appropriate treatment.

**247. EPIDEMIOLOGICAL PROFILE OF ACQUIRED SYPHILIS IN THE STATE OF MARANHÃO FROM 2019 TO 2023**Enza Rafaela Sá Rêgo<sup>1</sup>, Samuel Fernandes Lucena<sup>1</sup>, Roseliny De Moraes Martins Batista<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Syphilis is a Sexually Transmitted Infection (STI) caused by the bacterium *Treponema pallidum*. This disease can present various clinical manifestations that vary according to different stages (primary, secondary, latent, and tertiary syphilis) and can be transmitted sexually or vertically during gestation, classified as congenital, gestational, or acquired. In this context, the present study aims to analyze the epidemiological profile of acquired syphilis in the state of Maranhão from 2019 to 2023. **METHODS:** This is a descriptive and quantitative study based on data from the Department of Informatics of the Unified Health System (DATASUS/TABNET). The adopted variables were age group, sex, race, and education level, collected from 2019 to 2023 in the state of Maranhão. **RESULTS:** During the analyzed period, the state of Maranhão reported a total of 9,520 confirmed cases of syphilis, with the male sex being the most affected (58.5%). The year 2022 had the highest number of cases (29.9%), while 2020 had the lowest (13.1%). The most affected age group was 20 to 39 years (51.7%), followed by 40 to 59 years (28.9%), and the least affected was 10 to 14 years (0.47%). The brown race had the highest number of cases during this period (70%), followed by black (15.9%), white (11.4%), yellow (0.52%), and indigenous (0.4%). Regarding education, most cases were among illiterate individuals. **CONCLUSION:** The study revealed an increase in cases from 2019 to 2022, with a slight decrease in 2023. The most affected age group is 20 to 39 years, which can be explained by it being a period considered more sexually active. There was a difference in the percentage of cases between sexes, demonstrating that males are at a higher risk of acquiring syphilis, which may be explained by risk behaviors and a lower frequency of seeking preventive healthcare, resulting in late diagnoses and treatments. As for the prevalence of cases among black individuals and the illiterate population, a combination of socioeconomic, cultural factors, and access to healthcare are determinants. Therefore, it is crucial to intensify health education in the state to prevent the transmission of this disease.

**248. EPIDEMIOLOGICAL PROFILE OF RETINOBLASTOMA IN BRAZIL BETWEEN 2014 AND 2024**Chrisley Batista Ramos dos Santos<sup>1</sup>, Mylena Andréa Oliveira Torres<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** Retinoblastoma is the most common intraocular malignant neoplasm in childhood, but rare compared to other pediatric malignant tumors. More than 95% of clinical cases are diagnosed before 5 years of age. The malignancy occurs sporadically or hereditary, due to mutation in the RB1 tumor suppressor gene. The objective of this study was to outline an epidemiological profile of Retinoblastoma cases in Brazil, identifying clinical manifestations and therapeutic management. **METHODS:** This is a retrospective and quantitative cross-sectional epidemiological study based on data collection from DATASUS and the National Cancer Institute (INCA), between 2014 and 2024, using the variables gender, age group, ethnicity, staging and therapeutic modality. **RESULTS:** There were 138 cases registered during the period from 2014 to 2024, by INCA, of which the prevalence of the age group was less than 1 year (n = 39), male gender (n = 80) and brown ethnicity (n = 30). Regarding the tumor staging between less than 1 year and 5 years of age, according to DATASUS, there was a prevalence of Reese-Ellsworth stage 1 (n = 170) of the 652 confirmed cases, followed by chemotherapy and surgery as the most used oncological treatment. **CONCLUSION:** It was observed that the epidemiological profile of Retinoblastoma predominates up to 5 years of age of brown ethnicity in males, with initial staging in most cases, which in the clinical diagnosis present unilateral or bilateral leukocoria and strabismus. Thus, the clinical-epidemiological study of Retinoblastoma is important in oncological treatment and has a good prognosis, since knowing the profile of pediatric patients with Retinoblastoma contributes to the early diagnosis of the tumor.

**249. EPIDEMIOLOGICAL PROFILE OF DENGUE CASES FROM 2014 TO 2024 IN PATIENTS IN MARANHÃO**Victoria de Jesus Martins Fonseca<sup>1</sup>, Rebeca Fideles Camelo Cardoso<sup>1</sup>, Sara Passold Martins<sup>1</sup>, Shen Bruna Pagung Costa<sup>1</sup>, Mylena Andréa Oliveira Torres<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Dengue is an infection caused by a virus from the Flaviviridae family, transmitted mainly by mosquitoes of the *Aedes aegypti* genus. It has 4 genetically distinct serotypes: DENV-1, DENV-2, DENV-3 and DENV-4. Its main characteristics are fever, weakness, intense pain, increased hematocrit and, in severe cases, the accumulation of fluid in cavities. Most patients can recover, however, some cases can progress to serious stages, including death. The failure of the methods of containing the vector in Maranhão is reflected in the significant increase in Dengue cases among the most exposed people, and this represents a greater concern for the increase in hospitalizations. The objective of this study is to analyze the epidemiological profile of patients with dengue cases and hospitalizations in Maranhão from 2014 to 2024. **METHODS:** This is a retrospective, quantitative epidemiological study, with data collection from the Departamento de Informação do Sistema Único de Saúde (DATASUS), analyzing the years 2014 to 2024. The variables used were: probable cases per year and per municipality, hospitalization per year and per age group in the state of Maranhão. **RESULTS:** According to the data researched, 2,675 were registered in Maranhão in 2014; 8,069 in 2015; 23,653 in 2016; 7,132 in 2017; 2,132 in 2018; 5,593 in 2019; 2,517 in 2020; 1,322 in 2021; 6,849 in 2022; 4,801 in 2023; and 10,660 until the first half of 2024. A total of 75,718 probable cases of Dengue were registered, with the three municipalities with the most probable cases per year: São Luís with 12% (n = 9168), Barra do Corda 3% (n = 2283) and Balsas 2% (n = 2128). Furthermore, in the same period there were 9693 hospitalizations, with the highest number for people between 20 and 39 years old, 27% (n=2639), and the highest percentage of hospitalizations in relation to the number of cases per group was for children under 1 year old, with 24% (n=494) of hospitalizations. **CONCLUSION:** Therefore, it is noted that the current scenario is worrying, the biggest risk groups for Dengue in Maranhão were young people between 20 and 39 years old, being the most numerous group in hospitalizations, and those under 1 year old, due to the high number of hospitalizations for a smaller number of cases in relation to young people.

**250. EPIDEMIOLOGICAL PROFILE OF GESTATIONAL SYPHILIS CASES IN SÃO LUÍS – MA FROM 2019 TO 2023**

Vanessa Raquel Pereira Ribeiro<sup>1</sup>, Mayara Kelly Coelho Berredo<sup>1</sup>, Victor de Souza Calixto Neves da Silveira<sup>1</sup>, Thalita Linda Alves Candeira<sup>2</sup>, Mylena Andréa Oliveira Torres<sup>1</sup>.

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**INTRODUCTION:** Syphilis is one of the most globally impactful transmissible infections, caused by the bacterium *Treponema pallidum*. Transmission can occur through sexual contact, causing acquired syphilis, or through vertical transmission, from mother to fetus. When it occurs in pregnant women, it is called gestational syphilis, which can cause serious problems for the fetus. This infection during pregnancy is treatable, and thus congenital syphilis can be prevented. Despite efforts, cases of this infection persist in the city of São Luís – MA. This study aimed to describe the epidemiological profile of gestational syphilis in São Luís – MA, between 2019 and 2023. **METHODS:** This study aimed to describe the epidemiological profile of gestational syphilis in São Luís – MA, between 2019 and 2023. This is a retrospective, descriptive, and quantitative epidemiological study conducted through the collection of secondary data from the DATASUS platform regarding confirmed cases of syphilis in pregnant women in the period from 2019 to 2023 in São Luís - MA. The variables investigated include the maternal sociodemographic profile such as education level, age group, and race/ethnicity, as well as the classification of syphilis. **RESULTS:** During the sample period, 1,911 cases of syphilis in pregnant women were reported, with 23.3% (n=446) in 2019, 18.1% (n=347) in 2020, 25% (n=478) in 2021, 21.1% (n=416) in 2022, and 11.7% (n=224) in 2023. Among the records, there was a predominance of pregnant women with a high school education, corresponding to 45.5% (n=870) of the cases. In terms of age group, 0.83% (n=16) of the cases were from 10 to 14 years old, 18.5% (n=354) from 15 to 19 years old, 78.4% (n=1,499) from 20 to 39 years old, and 2.4% (n=47) from 40 to 59 years old. Of the recorded cases, 9.2% (n=176) were White, 10.6% (n=204) Black, 0.73% (n=14) Asian, 78.4% (n=1,499) Brown, and 0.15% (n=3) Indigenous. Regarding clinical classification, 39.2% (n=751) were primary, 17.3% (n=331) secondary, 9.1% (n=174) tertiary, 26.7% (n=512) latent, and 7.4% (n=143) were unidentified. **CONCLUSION:** Therefore, the study showed significant rates of syphilis in pregnant women in the city of São Luís - MA. These findings reveal the need for early interventions in the screening and treatment of pregnant women and their partners to reduce cases of congenital syphilis.

**251. EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS CASES IN BAIXADA MARANHENSE BETWEEN 2019 AND 2023**

Rian Carlos Silva Soares<sup>1</sup>, Juliano Augustus Fernandes Lima Sousa<sup>1</sup>, Inácio Venâncio da Silva Neto<sup>1</sup>, Osean Maximilyan Câmara Pereira<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Caused by the bacterium *Mycobacterium tuberculosis*, also known as Koch's bacillus, tuberculosis is an infectious and transmissible disease that mainly affects the lungs (pulmonary form), although it can affect other organs/systems (extrapulmonary form). Despite being an old disease, tuberculosis remains a significant public health problem. Thus, this study aims, considering the severity of the pathology, to outline and analyze the epidemiological profile of tuberculosis cases in Baixada Maranhense. **METHODS:** This is a descriptive and retrospective study, whose data come from DATASUS and the Information and Notifiable Diseases System (SINAN) from 2019 to 2023, about tuberculosis cases in the Baixada Maranhense microregion. The following aspects were addressed: municipality with the highest notification, age group, gender, race and evolution of cases. **RESULTS:** During the period in question, 666 cases of tuberculosis were recorded in Baixada Maranhense, with emphasis on the municipality of Pinheiro, which reported 152 reports of the disease (22.8%). In addition, it was observed that two age groups had the highest number of occurrences, in which there are the intervals of 20 to 39 years (40.5%) and 40 to 59 years (34.3%). Males were the most affected by the disease (69.5%), while the race variable showed a predominance of self-declared brown people, with 484 reported cases (72.6%). Regarding the evolution of cases, 378 cured patients were recorded (56.7%), while 60 (9.0%) abandoned treatment, 14 (2.1%) died from tuberculosis, 30 (4.5%) died from other causes and 116 (17.4%) were ignored or have no data. **CONCLUSION:** Considering the epidemiological profile presented, it can be concluded that, despite the risk nature and underreporting of cases, tuberculosis can be cured if diagnosed and treated quickly. In this context, it is necessary to develop new health prevention strategies that aim to inform the population, especially in Baixada Maranhense, about the risks related to the transmission and development of tuberculosis.

**252. EPIDEMIOLOGICAL PROFILE OF LIVE BIRTHS WITH ATRIAL SEPTAL DEFECT IN BRAZIL**

Brenda Pereira Nascimento<sup>1</sup>, Ygor Klauê da Silva Sousa<sup>2</sup>, Bárbara Letícia Pereira Nascimento<sup>3</sup>, Rodrigo de Andrade da Silva<sup>4</sup>, Janine Silva Ribeiro Godoy<sup>2</sup>

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**INTRODUCTION:** Congenital heart disease (CHD) refers to abnormalities in the cardiovascular structure or function that are present at birth. Approximately 0.8% of live births present with cardiovascular malformations. Atrial septal defect (ASD) accounts for about 5% to 10% of all congenital heart defects. Comorbidities tend to develop during adulthood and often require medical attention. This study aimed to characterize the epidemiological profile of live births with ASD in Brazil. **METHODS:** Data collection was based on secondary information from the Live Births Information System, available through the Monitoring Panel for Congenital Malformations, Deformities, and Chromosomal Anomalies of the Department of Informatics of the Unified Health System. The analysis focused on the Q21.1 indicator (atrial septal defect) for the period from 2019 to 2023, correlating variables such as sex, race/ethnicity, type of delivery, gestational age, and Apgar scores. **RESULTS:** Over the five-year period analyzed, 3,338 live births with ASD were reported nationwide. The year 2023 recorded the highest number of cases (23.5%, n = 785), followed by 2022 (20.9%, n = 700). The Southeast region accounted for the vast majority of cases (93.4%, n = 3,119). There was no significant difference between sexes, with males (50.7%, n = 1,695) slightly outnumbering females (48.8%, n = 1,631). Mixed-race (48.6%, n = 1,623) and white (37.6%, n = 1,257) individuals were the most affected. Cesarean deliveries (61.0%, n = 2,039) were more common than vaginal deliveries (38.9%, n = 1,299). Most infants were born at term (67.4%, n = 2,252), while a smaller proportion were born before 37 weeks of gestation (32.5%, n = 1,086). Regarding Apgar scores at the first minute, the majority received scores between 8 and 10 (66.4%, n = 2,219), indicating no asphyxia, while 22.2% (n = 743) received scores between 5 and 7, suggesting mild asphyxia. **CONCLUSION:** Live births diagnosed with ASD in Brazil are predominantly male, of mixed-race ethnicity, delivered via cesarean section, born at term, and without asphyxia. The predominance of male cases contrasts with findings in the literature that generally report ASD as more common in females. There is a noticeable upward trend in reported cases over the years, suggesting improvements in notification systems and earlier ASD diagnoses. However, the concentration of cases in the Southeast region indicates potential underdiagnosis and underreporting in other regions of Brazil, highlighting the need for adjustments in the reporting methodology.

**253. EPIDEMIOLOGICAL PROFILE OF DEATHS DUE TO AORTIC ANEURYSM AND DISSECTION IN NORTHEAST BRAZIL**

Bruno Miranda Rosa Gonçalves<sup>1</sup>, Guilherme Kauan Rocha Dantas<sup>1</sup>, Marcos Antonio Martins Pereira<sup>1</sup>, Bruno de Matos Rodrigues<sup>1</sup>, Marliane Lisboa Soares<sup>1</sup>, Cayo Ferreira Cutrim Serra<sup>1</sup>, Juliana Cristina Martins Costa Sallem<sup>2</sup>.

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**INTRODUCTION:** Aortic aneurysms (AA) and dissections (AD) are diseases affecting the largest artery in the human body, responsible for transporting an average of 200 million liters of blood over a lifetime. This significance explains the high morbidity and mortality associated with these conditions, as well as the need for ongoing scientific and clinical-surgical updates in the field. This study aims to identify epidemiological patterns of mortality from AA and AD in Northeast Brazil, a region with increasing mortality rates and decreasing procedures, in order to contribute to the recognition of the profile of patients with aortic disease and to encourage further research in the region and in vascular surgery. **METHODS:** This is a cross-sectional, descriptive study with a quantitative approach. Data were collected using the TabNet Win 32 3.0 tool from the Department of Informatics of the Brazilian Unified Health System (DATASUS), visualizing mortality according to the 10th revision of the International Classification of Diseases (ICD-10). The ICD-10 code I71 (aortic aneurysm and dissection) was selected, along with the Northeast region and the variables of sex, age, and race, covering the period from 2013 to 2022. The data were collected and tabulated using spreadsheets in Microsoft Excel 2016 for statistical analysis. **RESULTS:** The results showed that there were 12,392 deaths from AA and AD between 2013 and 2022 in Northeast Brazil. Among the collected variables, males accounted for 6,998 cases (56.47%), while females accounted for 5,393 cases (43.52%). Regarding race, 7,496 cases (60.49%) occurred in mixed-race individuals, followed by 3,556 cases (28.70%) in white individuals, 948 cases (7.65%) in black individuals, and 3.16% in other races. In terms of age, 9,421 cases (76.02%) were recorded in individuals aged 60 or older, of whom 3,173 (25.61%) were 80 years or older, 2,920 (23.56%) were aged 20 to 59, and 45 cases (0.36%) were recorded in individuals under 19 years of age. **CONCLUSION:** There is a predominance of cases among men, mixed-race individuals, and the elderly, with a progressive increase in the number of deaths as age advances. Therefore, the findings of this study demonstrate that there are identifiable patterns in the epidemiology of mortality due to aortic aneurysm and dissection in Northeast Brazil.

**254. EPIDEMIOLOGICAL PROFILE OF DEATHS FROM ACUTE MYOCARDIAL INFARCTION IN MARANHÃO FROM 2020 TO 2023**

João Victor Cunha Silva<sup>1</sup>, Ana Carolina Leal Melo<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, Isadora Leal Tavares Silva<sup>1</sup>, Larissa Emily Fiusa do Monte<sup>1</sup>, João Pedro Belaglovis Castelo Branco<sup>1</sup>, Michelline Joana Tenório Albuquerque Madruga Mesquita<sup>1</sup>.

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**INTRODUCTION:** Acute Myocardial Infarction (AMI) can be defined as any event that causes myocardial ischemia and subsequent death of cardiac muscle cells. In Brazil, it is estimated that there are 300,000 cases of AMI annually, with 3 deaths for every 10 cases. Given the observed incidence, this study aims to further clarify the epidemiological profile of deaths caused by acute myocardial infarction in Maranhão. **METHODS:** This is a retrospective epidemiological study on the epidemiology of deaths from acute myocardial infarction in Maranhão, using data from the Hospital Information System (SIH/SUS) for the period from 2020 to 2023, based on mortality rates. The variables used were: municipality, age group, sex, and race or ethnicity. **RESULTS:** In the State of Maranhão, between 2020 and 2023, a total of 859 deaths due to acute myocardial infarction were reported. Regarding the occurrence of cases by municipality, São Luís, Imperatriz, and Caxias showed the highest prevalence, accounting for approximately 31.54% (271), 12.22% (105), and 9.08% (78) of deaths, respectively. In terms of occurrence by gender, a higher prevalence was observed among males, with 57.27% of the cases (492), compared to females, with 42.72% (367). Concerning age groups, the 60 to 69 years bracket had the highest number of deaths: 26.77% (230), followed by those aged 80 years and over and those aged 70 to 79 years, with 26.65% (229) and 25.84% (222), respectively. Additionally, individuals with brown skin color were the most prevalent, representing 51.92% of the deaths (446). **CONCLUSION:** AMI is prevalent in Maranhão and is associated with high morbidity and mortality. In the State of Maranhão, São Luís represents the location with the highest percentage of deaths, likely due to its larger population. The prevalence among brown-skinned individuals follows the same population logic. Regarding age groups, starting from 60 years old, there is no significant difference in the mortality rate. Therefore, the epidemiological predominance occurs in men, the elderly, and those with brown skin. Thus, there is a clear need for health promotion measures aimed at reducing the prevalence of AMI in Maranhão.

**255. EPIDEMIOLOGICAL PROFILE OF DEATHS FROM SEPSIS IN MARANHÃO FROM 2013 TO 2022**

Marjana Pinheiro Bulhão<sup>1</sup>, Émilly Araújo Costa Lucena<sup>1</sup>, Mariana Barreto Serra<sup>1</sup>.

<sup>1</sup> Faculty of Medical Sciences AFYA – Santa Inês

**INTRODUCTION:** Sepsis is a disorder caused by the body's overwhelming response to an infection and is a leading cause of death worldwide. Nationally, approximately 240,000 adults die from sepsis each year. This study aims to describe the epidemiological profile of sepsis-related deaths in Maranhão from 2013 to 2022. **METHODS:** This is a retrospective, cross-sectional observational study on sepsis-related deaths in the state of Maranhão from 2013 to 2022, developed from data obtained from Mortality Information System of the Unified Health System (SIM/SUS). The information collected includes the total number of deaths due to sepsis (recorded as "septicemia" in CID-10), distribution by year, IBGE, sex, race and age group. The data was organized using Microsoft Office Excel<sup>®</sup> software. **RESULTS:** In the specified period, there were a total of 5,415 deaths from sepsis with the highest record in 2022 with 687 (12.68%) cases, while the lowest was in 2014 with 365 (6.74%). The microregion with the highest number of deaths in the developed period was in São Luís, totaling 1,840 (33.97%) records, followed by the microregion of Imperatriz and Codó with 1,308 (24.15%) and 365 (6.74%) cases, respectively. Conversely, the microregion of Chapada das Mangabeiras had the lowest amount with 10 (0.18%) cases. The highest number of deaths occurred in male patients, with 2,850 (52.63%) records. Regarding color/race, brown was the predominant race, with 3,367 (62.17%) cases. The highest number of deaths from sepsis occurred in patients aged 80 years or older, totaling 1,542 (28.47%) occurrences. **CONCLUSION:** There was a pattern of increasing deaths from sepsis in the Maranhão region during the analyzed period, with the predominant epidemiological profile being brown aged 80 years or older. Most cases occurred in the microregion of São Luís, possibly due to the larger population with access to healthcare in the capital or due to greater diagnostic and reporting efficiency of the health network.

**256. EPIDEMIOLOGICAL PROFILE OF PEDIATRIC PATIENTS HOSPITALIZED FOR EPILEPSY IN MARANHÃO**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Epilepsy (EPL) is characterized by hyperactive and dysregulated neural activity, resulting in excessive and synchronized electrical discharges. Epileptic seizures are common pediatric emergencies, accounting for 1% to 5% of emergency room visits and representing the leading cause of neurological hospitalizations in children. This study aims to understand the pediatric population in Maranhão affected by EPL requiring hospitalization. **METHODS:** This is a descriptive epidemiological study based on hospital morbidity and mortality data from DATASUS. The sample included children and adolescents up to 19 years old hospitalized for epilepsy in Maranhão, from March 2019 to March 2024. The variables analyzed were "health macro-regions," "year of admission," "age group," "sex," "race/ethnicity," "length of stay," "type of admission," and "deaths". **RESULTS:** The study revealed significant data on pediatric EPL hospitalizations in Maranhão. A total of 3,346 hospitalizations were recorded, predominantly in the North macro-region (60.6%), followed by the East (21.9%) and South (17.3%) regions. Male patients showed a higher prevalence of hospitalizations (53.2%) and deaths (53.85%) compared to females. The age group 1 to 4 years was the most affected, accounting for 34.6% of the hospitalizations. Mixed-race individuals were the most hospitalized (64.2%) and had the highest number of deaths (76.93%), with 2023 being the year with the most records. Emergency admissions (95.2%) far exceeded elective ones (4.87%). The average length of stay was highest in 2022 and 2023 (5.8 days). A total of 26 deaths were recorded, with the highest concentration in the North macro-region (46.1%), and equal distribution between the East and South regions (26.9% each). The age group 15 to 19 years had the highest number of deaths (30.8%), followed by the 1-year-old group (26.9%). The data indicate an increase in mortality rates over the past four years, particularly in 2023. **CONCLUSION:** This study presents a concerning panorama of EPL in the pediatric population of Maranhão, with 3,346 hospitalizations during the analyzed period, predominantly in the North macro-region and among male and mixed-race individuals. The most affected age group was 1 to 4 years, with a notable increase in mortality rates in the last four years, particularly in 2023. These data underscore the need to deepen the understanding of the epilepsy profile in the state to develop specific strategies aimed at improving the quality of life for children and adolescents in Maranhão.

**257. EPIDEMIOLOGICAL PROFILE OF AIDS PATIENTS IN MARANHÃO (2018-2023)**

Layna Ravenna Batista de Lima<sup>1</sup>, Maria Júlia de Sena Lopes<sup>1</sup>, Emilly Reis de Albuquerque Moraes<sup>1</sup>, Klitia de Jesus Saraiva Garrido Carneiro<sup>1</sup>.

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**INTRODUCTION:** Human immunodeficiency syndrome (AIDS) is the disease caused by infection with the Human Immunodeficiency Virus (HIV) and is characterized by the weakening of the body's defense system and the appearance of opportunistic diseases. The HIV virus is transmitted through unprotected sexual intercourse with an HIV-positive person, that is, someone who already has the HIV virus, through the sharing of contaminated sharp objects from an untreated HIV-positive mother to her child during pregnancy, childbirth or breastfeeding. Thus, this study aims to analyze the epidemiological profile of AIDS carriers in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, in which data provided by the Notifiable Diseases Information System (SINAN) database were used, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years researched were 2018 to 2023. Race, sex and age group were analyzed as variables. **RESULTS:** During the studied period, 6,653 cases of AIDS were registered in Maranhão. Of these, 24.8% (n=1,649) were brown-skinned people. 67% (n=4,463) were male; 38.56% (n=2,566) were between 35 and 49 years of age, followed by 38.5% (n=2,562) between 20 and 34 years of age. **CONCLUSION:** It was observed that the majority of AIDS cases diagnosed in the State of Maranhão in the years analyzed occurred in brown-skinned individuals, as the majority of the population was male, between 35 and 49 years of age. Therefore, preventive actions, such as sexual health education in the community, treatment of cases, distribution of condoms and testing of all exposed individuals are extremely important for the process of combating the AIDS epidemic in Brazil to become effective.

**258. MICROBIOLOGICAL PROFILE OF SURGICAL SITE INFECTIONS IN CESAREAN SECTIONS: INTEGRATIVE REVIEW**

Juliana Campos Vieira<sup>1</sup>, Lucas Veríssimo Oliveira Batista<sup>1</sup>, Nicole Peres Soeira<sup>1</sup>, Fábio dos Santos de Souza<sup>1</sup>, Isadora Costa Santos Gregório<sup>1</sup>, Samuel de Sousa Gregório<sup>1</sup>.

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**INTRODUCTION:** Surgical site infection (SSI) is a complication that can occur up to 30 days after surgery, with multifactorial causes related to the patient, the procedure, and the hospital environment. These infections are particularly significant in obstetric surgeries, such as cesarean sections. In Brazil, the high rate of cesarean sections exacerbates the problem, prolonging recovery, increasing treatment costs, and potentially leading to severe complications such as sepsis. Preventing SSIs is essential, especially due to the increasing bacterial resistance. Therefore, it requires a comprehensive approach with strategies before, during, and after the surgery. Thus, the aim of the study is to evaluate the most common microorganisms in post-cesarean infections. **METHODS:** This is an integrative review using the LILACS, SciELO, and PubMed databases. The main question was: 'What is the microbiological profile of infections at surgical sites after cesarean sections?' The review covered articles from 2019 to 2024, using health science descriptors: ('Surgical Wound Infection' OR 'Postoperative Infections') AND 'Cesarean Section.' Articles in Portuguese, English, and Spanish focusing on the microbiological profile of SSIs were included. Opinion articles, literature reviews, letters to the editor, and studies with inadequate methodology or small sample sizes were excluded. **RESULTS:** Nine articles were selected, with eight from PubMed and one from LILACS, all international. The distribution of the studies was 44% prospective, 44% retrospective, and 12% cross-sectional. *Staphylococcus aureus* was the most common agent, responsible for 55% of infections, followed by *Enterococcus faecalis* (18%), *Acinetobacter baumannii* (9%), *Pseudomonas aeruginosa* (9%), and *Escherichia coli* (9%). *S. aureus* is frequently found on the skin and mucous membranes, which facilitates contamination of the surgical site even with aseptic care. Its ability to form biofilms increases its resistance to antibiotics, complicating the treatment of post-cesarean infections. **CONCLUSION:** The study highlights the need for rigorous infection prevention and control strategies. The resistance of *S. aureus* to antibiotics requires new approaches in antimicrobial treatment. Implementing infection control practices and raising awareness about antibiotic use are essential for improving surgical safety and patient outcomes.

**259. PLACHTOPENIA INDUCED BY EXTRACORPOREAL CIRCULATION AFTER CARDIAC SURGERY**

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**INTRODUCTION:** Extracorporeal circulation (ECC) is used as an aid to cardiac surgeries, acting to replace cardiopulmonary function and controlling the patient's acid-base and water-electrolyte balances. Given the need to keep the body under control during surgery, ECC uses certain medications that can exceed the body's capabilities, causing situations such as thrombocytopenia, which has been linked to the use of heparin, one of the substances used in ECC, to prevent blood clotting. In this sense, the objective of this work is to determine whether there is any palpable relationship between thrombocytopenia and ECC time. **METHODS:** This is an analytical, longitudinal, descriptive and retrospective cohort study, approved by the Research Ethics Committee under consolidated opinion no. 6,678,093. The sample consisted of 102 patients undergoing myocardial revascularization surgery with ECC during the period from January 2022 to July 2023. The study variables are ECC time and number of platelets in the immediate postoperative period, which were tabulated in Graph Prisma software version 8.0. The data were subjected to the Shapiro-Wilk test, T test and frequency tables. **RESULTS:** It was possible to identify 44 (43%) patients in the sample with less than 150,000 platelets/mm<sup>3</sup>, with the average number of platelets and extracorporeal circulation time of 183,000 platelets/mm<sup>3</sup> and 93 minutes, respectively. The normality test indicated that it was a non-parametric sample ( $p < 0.0001$ ), with a significant difference between the variables ( $p = 0.039$ ). **CONCLUSION:** Therefore, it is clear that this is a scattered sample and cannot establish an association between cardiopulmonary bypass time and the development of thrombocytopenia. In this sense, although there are assumptions that the use of heparin in ECC may cause thrombocytopenia, this study did not identify any relationship between these variables. Therefore, other more detailed studies are necessary to completely rule out this hypothesis.

**260. GENETIC POLYMORPHISM AND MASCULINITY: A MULTIFACTORIAL PERSPECTIVE ON ERECTILE DYSFUNCTION**

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**INTRODUCTION:** Erectile dysfunction (ED) is the inability to achieve and/or maintain an erection, making it the most common sexual disorder among cisgender men. Information regarding the origin and development of this issue is still limited to organic factors, resulting in a lack of a multifactorial approach to ED. Therefore, the aim of this study is to relate ED to genetic polymorphisms and social dogmas about masculinity. **METHODS:** A systematic review of observational studies published between 2013 and 2023, obtained from the platforms Scielo, Pubmed, and Lilacs, was screened according to the PRISMA 2020 method checklist. **RESULTS:** It was found that anomalies in certain genes can cause failures in the erectile mechanism, affecting the function of nitric oxide (NO), which plays a role in the physiology of erection. Polymorphisms in the expression of the DDAH1 and DDAH2 genes cause dysfunction in NO signaling, as they metabolize the protein that inhibits the subtypes of nitric oxide synthase (NOS), and anomalies in AGXT2 are also related to increased levels of asymmetric dimethylarginine (ADMA) and symmetric dimethylarginine (SDMA), which inhibit NO production. In the treatment of ED, impairments caused by variant alleles of polymorphisms in the PDE5A gene were also detected, which reduce the response to the drug sildenafil, used to inhibit type 5 phosphodiesterase and thus enable erection. It was also observed that ED is strongly influenced by the concept of masculinity prevailing in society, where good sexual performance is seen as proof of masculinity and potency. The prevalence of the idea that cisgender men are the foundation of social organization, that their sexual organ is responsible for the perpetuation of humanity, and that failing to meet this responsibility will result in severe structural sanctions was notable. Therefore, the fear of not meeting this social pressure can psychologically affect many men to the point of preventing them from achieving an erection, drawing attention to the importance of men's mental health. **CONCLUSION:** Thus, it is understood that genetic polymorphisms in the DDAH1, DDAH2, and AGXT2 genes play a role in the development of ED, and those in the PDE5A gene impair the effectiveness of sildenafil-based treatment, highlighting the need for further scientific research in the field of genetics to minimize the disorder. In addition, it was proven that social pressure on men can cause ED, demanding that healthcare professionals pay attention to the psychocultural construction of patients as a complementary measure for etiological screening of the disorder.

**261. PUBLIC POLICIES: FACTORS THAT INFLUENCE MALE MORTALITY**

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**INTRODUCTION:** Although the Brazilian population's longevity reached 77 years of age in 2021, life expectancy for men, in particular, is only 73.6 years, while for women it is 80.6 years. Thus, this work aims to highlight the main causes of male mortality in Brazil and relate them to public policies. **METHODS:** The research, an integrative review, has a qualitative character with an exploratory, retrospective approach, which used as a data collection procedure the resource of documentary analysis through secondary sources: Ministry of Health, IBGE, articles published in the SciELO and PubMed databases with the descriptors: "Men's Health" AND "Mortality" "National Policy for Men's Health Care". Nine articles were selected after inclusion and exclusion criteria. **RESULTS:** The results show that the prevalence of male deaths from external causes such as accidents and violence, leading to premature death (68% were men). The second leading cause of male mortality was Circulatory System Diseases - CSD (70% of these deaths were men). In addition, there is a growing rate of suicides, especially among male adolescents, with the rate rising from 3.6 in 2001 to 9.9/100,000 inhabitants in 2019, with the state of Maranhão standing out in this growth. In order to reduce, and even prevent, preventable deaths, there is the National Policy for Comprehensive Health Care for Men (NPCHCM); the National Primary Care Policy and the National Coordination of Men's Health of the Ministry of Health, which seek actions to expand access to health by qualifying health care for the male population from the perspective of lines of care, safeguarding comprehensive care. **CONCLUSION:** It is noted that there is still much to be achieved, mainly due to sociocultural and institutional barriers, low adherence to self-care and late search for health services by the male population, making it necessary to reinforce health education and the engagement of patients and health professionals in primary care.



**262. POST-OPERATIVE COMPLICATIONS IN CARDIAC SURGERY WITH EXTRACORPOREAL CIRCULATION**

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**INTRODUCTION:** Coronary artery bypass grafting (CABG) with extracorporeal circulation (ECC) is a common intervention for treating severe coronary artery disease. Although this surgery effectively improves blood flow to the heart, it is associated with various post-operative complications. This study aims to evaluate the incidence and nature of post-operative complications in patients undergoing CABG with ECC, aiming to enhance the understanding of factors influencing clinical outcomes and to guide strategies for preventing and managing these complications. **METHODS:** This is an analytical, longitudinal, descriptive, and retrospective cohort study, approved by the Ethics Committee under opinion number 6.678.093. The sample comprised 104 patients who underwent coronary artery bypass surgery with ECC from January 2022 to July 2023. Patients who underwent other concomitant cardiac surgeries and those whose post-operative complications were not identified were excluded from the study. After applying the exclusion criteria, 84 patients were analyzed. **RESULTS:** Of these patients, 30 (35%) had no complications, 33 (39%) developed arrhythmias (23 with ventricular fibrillation and 10 with atrial fibrillation), 12 (14.2%) experienced hemodynamic instability, 7 (8.3%) had infections, 4 (4.7%) developed cardiogenic shock, 4 (4.7%) had cardiorespiratory arrest, and 10 (11.9%) died. Therefore, although most patients undergoing CABG with ECC did not present complications, arrhythmias, hemodynamic instability, and infections were observed as potential complications. Additionally, cardiogenic shock and cardiorespiratory arrest were noted as severe complications with a significant impact on post-operative mortality. **CONCLUSION:** These findings highlight the importance of perioperative prevention and management strategies to reduce post-operative complications and improve clinical outcomes in patients.

**263. PRE-, INTRA-, AND POST-OPERATIVE: POSSIBILITIES FOR THE APPLICATION OF TELEMEDICINE IN THE SURGICAL FIELD**

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**INTRODUCTION:** In recent years, telemedicine has emerged as a transformative tool in medical practice, facilitating remote consultations and diagnoses. Within the surgical field, telemedicine has the potential to expand access to care and to optimize hospital resources. However, the possibilities for its use in this domain are seldom discussed. Therefore, this study aims to elucidate the application of telemedicine during the surgical follow-up and perioperative care. **METHODS:** This is an integrative review that utilized the descriptors 'Telemedicine,' 'Telesurgery,' 'Virtual Medicine,' 'Telereferencing,' and 'Mobile Health' associated with the boolean operator OR in the PubMed database and the Virtual Health Library in June 2024. The inclusion criteria consisted of primary articles in English and Portuguese, published over the last 10 years, focusing on the use of telemedicine in the surgical field. Articles not available in full text and those not relevant to the research question were excluded. **RESULTS:** A total of 249 studies were retrieved, of which 16 met the inclusion and exclusion criteria. Telesurgery was utilized in general, urological, oncological, cardiac, and digestive surgeries. The robot-surgeon distance ranging from 6 km to 3000 km. In most articles, communication was conducted in real-time via 4K videoconferencing, allowing seamless and precise manipulation of the robotic arm without interruptions. The surgical complication rate was 5.0% for telepresence surgeries, compared to 4.5% for in-person surgeries. Internet latency up to 50 milliseconds was deemed acceptable, while delays beyond 100 milliseconds significantly impaired operative performance. Average latency ranged from 26 milliseconds to 114 milliseconds, with a data packet loss rate of 1.2%. Communication delay and image degradation were identified as critical factors in telesurgery. **CONCLUSION:** The findings highlight the necessary parameters for the utilization of telemedicine in surgical processes. However, there is a lack of information regarding its use in the pre- and post-operative phases. Obstacles in communication and image degradation due to internet difficulties are identified as factors that need to be improved and overcome during surgeries. Nevertheless, technology has proven to be a reliable factor in expanding surgical procedures to remote areas, enabling greater democratization of access to healthcare.

**264. PREVALENCE OF DENGUE IN NORTHEAST BRAZIL FROM 2019 TO 2023**

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**INTRODUCTION:** Dengue is an arbovirus, transmitted by *Aedes Aegypti*, which spreads in accumulated water, is highly contagious and its prevalence is highly relevant in public health. Caused by a flavivirus that has the serotypes: DENV-1, DENV-2, DENV-3, DENV-4. It can be influenced by environmental factors, such as rainfall distribution and temperature. This study was carried out with the aim of studying the prevalence of dengue in Northeast Brazil. **METHODS:** Epidemiological, quantitative, descriptive, time series study, with secondary data extracted from TABNET-DATASUS-Notifiable Diseases Information System (SINAN), from the period 2019 to 2023, the data were tabulated in Excel and statistically analyzed in the Bioestat Program 5.3., the results expressed in absolute numbers, frequencies, mean, standard deviation and coefficient of variation. **RESULTS:** In the period analyzed, 843,350 cases were reported in the Northeast region. In this time period, the highest detection was in the years 2019 and 2022, with a prevalence in the state of Bahia (30.78%). There was a prevalence of dengue notification in females (55.25%), in the age group of 20 to 39 years (37.81%) and ethnicity/brown color (59.58%). **CONCLUSION:** Attention should be paid to dengue as a highly transmissible disease, noting the high incidence in conjunction with its epidemiology and the risk of progression to dengue hemorrhagic fever and death. Because of this, dengue demands enormous public health attention in the Northeast region and the country. It should be noted, therefore, that the data presented here can support the development of public policies in the Brazilian northeast, with a view to reducing the number of dengue cases.

**265. PREVALENCE OF SELF-HARM CASES IN MARANHÃO FROM 2018 TO 2022**

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**INTRODUCTION:** Self-harm is the act of intentionally inflicting injury on one's own body, often driven by emotional distress or other motivations, taking various forms such as cutting, burning, or spacing. This behavior is most prevalent among individuals aged 10 to 25 years. Given the physical and psychological impacts of self-harm, this study aimed to outline the epidemiological profile of individuals engaging in this practice and assess its prevalence in the state of Maranhão. **METHODS:** This is a descriptive, observational, cross-sectional study using data from the TabNet platform of the Department of Health Informatics of the Unified Health System (DATASUS) on self-harm cases in Maranhão between 2018 and 2022. The following variables were considered: year, health macro-region, age group, sex, race, education level, and occurrence of concomitant forms of violence. **RESULTS:** During the analyzed period, a total of 1,880 cases were reported, with 2022 accounting for the highest number (n=659). The northern macro-region of Maranhão had the highest number of notifications (n=678). Regarding age distribution, about 66% (n=1,242) of individuals were between 10 and 29 years old. Additionally, most cases involved females (n=1,178) and individuals identified as mixed-race (pardo) (n=1,423). In terms of education level, the category with the highest number of notifications was those with incomplete elementary education (n=510). Among the types of concomitant violence, psychological/emotional abuse was the most prominent (n=208). **CONCLUSION:** The analysis of self-harm data in Maranhão from 2018 to 2022 reveals a concerning regional trend. The significant rise in cases in 2022, coupled with the concentration of incidents in the northern macro-region, highlights the vulnerability of individuals aged 10 to 29, particularly females and those identifying as mixed-race (pardo). The prevalence of cases among individuals with incomplete elementary education and the prominence of psychological/emotional abuse as a concomitant form of violence underscore the presence of social disparities. This study reinforces the need for targeted public policies and coordinated efforts to address the underlying factors and reduce the incidence of self-harm, particularly in at-risk youth.

**266. PREVALENCE OF PSYCHIATRIC DISORDERS IN LGBTQIA+ INDIVIDUALS: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Currently, LGBTQIA+ individuals are stigmatized and often discriminated against by the general population, resulting in a greater propensity to develop mental disorders. In this sense, this systematic review aims to identify which mental disorders and psychiatric symptoms most affect people in the LGBTQIA+ community. **METHODS:** A systematic review was conducted in the U.S. National Library of Medicine (PubMed) database, following the PRISMA protocol guidelines. The search was performed using the combination of the terms (Gender Minorities OR Sexual Minorities) AND (Mental Disorders) NOT (Dysphoria) AND (Comorbidities). Articles published in English and available in full and free of charge from the last five years were selected. Eligibility criteria included cross-sectional, case-control, or cohort studies. Articles that did not meet these criteria were excluded. **RESULTS:** It was observed that LGBTQIA+ people have a higher prevalence of traumatic experiences in childhood, which lead to the presence of comorbid disorders in adulthood. In general, it was noticed that sexual minority individuals have symptoms mainly of anxiety, depression and post-traumatic stress disorder (PTSD), and are also more likely to use substances than cis and heterosexual people. It was noted that bisexual individuals are more prone to alcohol or other substance abuse disorders, in addition to being more likely to develop eating disorders (ED), major depressive disorder (MDD) or generalized anxiety disorder (GAD). Furthermore, transgender people were found to have a greater potential to develop mental health problems or self-harm, in addition to having a higher rate of psychiatric comorbidities and a higher prevalence of nicotine and polysubstance addiction, with marijuana being the most prevalent. **CONCLUSION:** It is concluded that mental disorders in the LGBTQIA+ community are highly prevalent, mainly due to the prejudice experienced by this minority. Therefore, it is clear that the scenario experienced, marked by stigma and physical and/or psychological violence, contributes to the development of psychosocial impairment, leading to various psychiatric pathologies, such as anxiety and depressive disorders, post-traumatic stress disorders, alcohol and/or substance abuse disorders, and eating disorders.

**267. PREVALENCE AND CORRELATIONS OF CONSTIPATION IN FIBROMYALGIA PATIENTS IN LGBTQIA+ INDIVIDUALS: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Fibromyalgia is a chronic pain syndrome. Patients with this condition often experience abdominal pain and constipation, conditions that are more prevalent in this group than in the population without the disease. This association amplifies the challenges faced by individuals with fibromyalgia. This study aims to assess the prevalence of constipation in outpatients with fibromyalgia and correlate these findings with other data, in order to enhance understanding of the subject. **METHODS:** This is a cross-sectional descriptive observational study with a sample of 66 women diagnosed with fibromyalgia, aged over 18 years, who provided informed consent. Data collection took place from September 2022 to February 2023. The project was approved under number 5.656.902. The instruments used were: sociodemographic and health questionnaires, Rome IV criteria, the Widespread Pain Index (WPI) and the Symptom Severity Scale (SSS), The Revised Fibromyalgia Impact Questionnaire (FIQR), Patient Assessment of Constipation-Symptoms (PAC-SYM), and the Food Frequency Questionnaire (FFQ) as a basis for calculating the Revised Diet Quality Index (IQD-R). Statistical analyses were appropriately conducted using the Shapiro-Wilk test, the Mann-Whitney U test, and the chi-square test, adopting a 5% significance level as required. **RESULTS:** Among the 66 patients, 68.18% met the Rome IV criteria for constipation. There was no significant statistical relationship between any comorbidity or medication used for the treatment of fibromyalgia and the presence of constipation. The SSS and the average IQD also showed no significant relationship. The association between the WPI and the presence of constipation, however, was significant. The mean FIQR score of patients diagnosed with constipation was considerably higher than that of patients without constipation, with a statistically significant association. The PAC-SYM also showed a strong association with constipation in patients with fibromyalgia. **CONCLUSION:** In conclusion, there is a high prevalence of constipation in patients diagnosed with fibromyalgia. The intensity of widespread pain had a strong correlation, indicating that patients with more severe pain were more likely to experience constipation. The presence and severity of gastrointestinal symptoms were higher on average in patients with fibromyalgia compared to the general population.

**268. SLEEP DEPRIVATION AND ITS IMPACT ON BRAIN HEALTH AND NEURODEGENERATIVE DISEASES**

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**INTRODUCTION:** During sleep, various homeostatic maintenance activities occur, including temperature control, memory consolidation, hormonal regulation, and the clearance of cerebral metabolites such as  $\beta$ -amyloid and P-Tau (tau protein). Thus, chronic sleep deprivation impairs the clearance of these substances, leading to their accumulation in tissues and resulting in brain and systemic damage. This study aimed to investigate the influence of sleep deprivation on brain health and its implications throughout the life cycle. **METHODS:** This is an integrative literature review that included publications in English and Portuguese published in the last five years, available on the digital platforms of the Biblioteca Virtual de Saúde (BVS), PubMed, and SciELO. Additionally, books, theses, official documents from operating agencies, and dissertations were consulted. **RESULTS:** There is a strong relationship between chronic sleep deprivation and neurobiological alterations triggered throughout the life cycle, such as attention deficits, loss of visual memory, and emotional and psychological disorders, including depression and anxiety. Another finding is related to hormonal disturbances, immune alterations, increased risk of maternal mortality, and the development of neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease, as well as other dementias. **CONCLUSION:** Chronic sleep deprivation is closely related to physiological and neurobiological alterations and plays a fundamental role in maintaining bodily homeostasis. Among the main alterations, we can highlight its influence on the endocrine, reproductive, metabolic, and nervous systems, with an increased risk of inflammatory burden and endothelial damage. Additionally, the literature also points to the emergence of diabetes mellitus, obesity, systemic hypertension, and stroke, promoting cognitive disorders that diminish synapses, resulting in neuronal loss characterized by the appearance of amyloid plaques and tau protein.

**269. PROBIOTICS AS COMPLEMENTARY THERAPY FOR VULVOVAGINAL CANDIDIASIS AND BACTERIAL VAGINOSIS**

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**INTRODUCTION:** The balance of the vaginal microbiota is a determining factor in the prevention of gynecological infections, protecting the vagina from colonization by pathogens. In this sense, an imbalance in the vaginal ecosystem favors the development of Vulvovaginal Candidiasis (VVC) and Bacterial Vaginosis (BV). Thus, an alternative to re-establish this balance is the use of probiotics, which are live microorganisms capable of displacing microbial growth by increasing the number of commensal bacteria. This study aims to analyze probiotics as a complementary therapy for VVC and BV, by benefiting the proper recolonization of the vagina. **METHODS:** This is an integrative literature review based on the PubMed, VHL (Virtual Health Library) and Scopus databases. The articles were categorized and separated according to their suitability for the topic, based on the descriptors "Probiotics", "Vulvovaginal Candidiasis" and "Bacterial Vaginosis", combined using the Boolean operator AND, delimiting articles from the period 2020 to 2024. Out of a total of 69 articles found, 17 were selected, including controlled, randomized clinical studies, meta-analyses and reviews, 52 of which were excluded because they did not deal with the subject in question, or because they were duplicated in the databases. **RESULTS:** There was a notable difference in the cure rate of VVC and BV with the use of probiotics, especially as an adjunct to antibiotic therapy, and they were associated with a reduction in vaginitis recurrence rates. In addition, probiotics had an impact on the maintenance and recovery of normal vaginal microbiota, but with significant short-term effects. With regard to pregnant women, there is still no consensus that the use of probiotics is effective during this period or that it prevents premature labor. Yeast-based probiotics are also an option, with the advantage of not being susceptible to antibiotics or developing resistance to them, and *Saccharomyces cerevisiae* has been considered the most effective species against VVC. **CONCLUSION:** The use of probiotics in patients with VVC or BV can be a useful complement to specific treatment, especially in cases of recurrence, improving therapeutic results by restoring the vaginal ecosystem. However, there is a need for further studies to analyze intervention times, probiotic strains, doses, long-term results and efficacy in pregnant women, in order to find the ideal therapeutic regimen.

**270. PROS AND CONS OF IRON SUPPLEMENTATION DURING PREGNANCY: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** The gestational period brings about numerous physiological and anatomical changes across various bodily systems. One of the most critical changes is the increased demand for iron, driven by the expansion of maternal erythrocyte mass and the growth of the fetus and placenta. Many women enter pregnancy with insufficient iron stores, particularly in populations where iron-deficient diets are common. In light of this, the present study aims to review current recommendations for iron supplementation during pregnancy, discussing both its benefits and potential drawbacks. **METHODS:** This is an integrative review conducted through a non-systematic bibliographic search in databases such as PubMed, Scopus, SciELO, and Google Scholar, focusing on the relationship between iron supplementation during pregnancy. Eight electronic articles published in the last 5 years were selected, using descriptors such as Pregnancy, Iron-Deficiency Anemia, Ferrous Sulfate, and Prevention. **RESULTS:** In Brazil, prophylactic supplementation of ferrous sulfate is recommended for pregnant women from the knowledge of pregnancy until the third month postpartum, with a dosage of 30 to 60 mg of elemental iron daily. In countries where the prevalence of anemia exceeds 40%, the implementation of iron supplementation programs is recommended. However, there are studies that warn about the potential deleterious effects of indiscriminate iron administration during pregnancy, including: increased risk of gestational diabetes, obstetric complications such as gestational hypertension and placental infarcts, which can lead to intrauterine growth restriction. **CONCLUSION:** In the Brazilian context, guidelines recommend the use of ferrous sulfate in primary care for pregnant women. However, it is crucial for doctors to conduct an individualized assessment of each patient. Iron supplementation should be carefully considered in pregnant women who do not have a prior diagnosis of anemia, especially if their blood levels are normal. It is important to be aware of the potential adverse effects of supplementation, such as oxidative stress resulting from the oxidizing properties of iron.

**271. PSYCHOLOGY OF AGEING: MEDICINE AND MENTAL HEALTH OF THE ELDERLY**

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**INTRODUCTION:** With advances in medicine, there has been a significant increase in the elderly population, accompanied by a higher incidence of psychological disorders such as depression. Factors such as family losses, prolonged use of medication, and the emergence of new diseases affect the mental health of the elderly. Thus, this study aimed to analyze the psychological impacts of aging on the physical and mental health of the elderly, as well as the relevance of medicine in improving the health of this population. **METHODS:** This study consisted of a literature review using databases such as EBSCO, MEDLINE, and LILACS, from 2017 to 2024. The descriptors included "Mental Health" and "Older Adults", and the Medical Subject Headings (MeSH): "Mental Health" and "Older Adults". Only articles that directly addressed the proposed topic were selected, excluding theses, dissertations, and reviews that did not fit the defined criteria. **RESULTS:** Aging, especially when associated with diseases such as diabetes and hypertension, traumatic events such as the loss of loved ones, and the continuous use of medication, is a period of great vulnerability for the development of psychological problems, with depression standing out as one of the most prevalent disorders. This condition not only impacts the mental health of the elderly, contributing to sleep disturbances, loss of energy, and reduced functional capacity but can also influence physical health, increasing the risk of conditions such as obesity and worsening chronic diseases due to lack of adherence to drug therapies. Medicine plays a crucial role in offering individualized care that considers not only clinical conditions but also emotional aspects of aging. Integrating cognitive assessments into physical assessments allows for a holistic approach aimed at improving both the physical and mental health of this population. **CONCLUSION:** It can therefore be concluded that psychological changes resulting from aging, such as depression, result in consequences for the health of the elderly, increasing the risk of obesity and affecting sleep patterns. Medicine plays an essential role in providing care tailored to the individual needs of older people, considering their physical and mental health in an integrated way. This involves being attentive to symptoms and making effective referrals to promote improved mental health.

**272. PUBLICATIONS IN ANESTHESIOLOGY IN BRAZIL: A BIBLIOMETRIC ANALYSIS OF REGIONAL PRODUCTION**

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**INTRODUCTION:** Anesthesiology is fundamental in modern medicine, ensuring safety in surgical procedures. In Brazil, research in anesthesia is essential for improving techniques, reducing risks, and enhancing clinical outcomes, but it presents regional disparities. This study proposes a bibliometric analysis of anesthesia article publications in the country, with the aim of understanding regional contributions and identifying gaps in scientific research. **METHODS:** The Scopus (Elsevier) database was used, filtering by Pain and Anesthesiology journals and separated by country, focusing on Brazil. The analysis included the five journals with the highest CiteScore: "Anesthesiology," "The Journal of Pain," "British Journal of Anesthesia," "Pain," and "Anaesthesia." Publications were categorized regionally based on the authors' universities or research centers in the following regions: North, Northeast, Central-West, Southeast, and South. To enrich the study, social, geographic, and demographic articles from the Brazilian Institute of Geography and Statistics (IBGE) were used. The analyzed variables include the total number of publications, the percentage of regional contributions at the national level, the average production per region compared to the country, and the per capita quantity by region. **RESULTS:** During the study period, 0 publications were recorded in the North, 12 in the Northeast, 5 in the Central-West, 189 in the Southeast, and 36 in the South, with a national average of 48.4 per region. Thus, scientific production relative to the population of each region of Brazil reveals a significant concentration of activities in the Southeast, with a rate of 2.15 publications per million inhabitants, making it the main hub of scientific production. The South region, with 1.20 publications per million, also shows a relevant contribution. In contrast, the Northeast and Central-West regions, with rates of 0.21 and 0.31, respectively, demonstrate minimal per capita scientific production. The North region did not register any publications, showing an absence of scientific contributions. **CONCLUSION:** The study highlights the inequality in scientific production in anesthesiology in Brazil, with the Southeast and South regions leading in per capita productivity. This is due to the availability of resources, research infrastructure, and incentive policies. The modest participation of other regions reveals the need for strategies to promote scientific development, such as funding programs, the enhancement of research in medical institutions, and collaborative exchange between regions.

**273. QUALITY OF LIFE OF CHILDREN AND ADOLESCENTS WITH T1D: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Brazil is the 3rd country with the highest number of cases of Type 1 Diabetes (T1D) in individuals under 20 years old. This metabolic disorder, requiring lifelong insulin therapy and lifestyle changes, affects the adaptation and development of children and adolescents. Therefore, understanding the impacts on the quality of life (QoL) of young people with T1D is crucial. Thus, this study aims to analyze the impact of Type 1 Diabetes on the quality of life of children and adolescents. **METHODS:** This is an integrative review conducted based on the PRISMA Protocol. The search in the databases PubMed, Scielo, Lilacs, and Google Scholar utilized the descriptors "quality of life," "children," "adolescents," and "Type 1 Diabetes," along with their alternative terms in Portuguese and Spanish. Primary studies from the last five years published in Portuguese, English, or Spanish that addressed the proposed topic were included. Review articles, meta-analyses, case reports, and uncontrolled studies were excluded. **RESULTS:** A total of 397 papers were found, with 390 rejected based on the inclusion and exclusion criteria, leaving 7 selected for analysis. In total, 1,013 individuals with T1D were evaluated, aged between 2 and 18 years. Quality of life (QoL) was assessed through the application of questionnaires. Reported impacts on QoL included the occurrence of symptoms, constant worry about the disease, and barriers to treatment. Neurological vulnerability to hypoglycemia was identified as a detrimental factor in children aged 8 to 12 years. Better QoL was observed in males, while females were more affected by psychological disorders. Improved QoL was noted in individuals with an income above one minimum wage or those who engage in physical activities. No statistical relationship was found between QoL and glycemic control, although episodes of severe hypoglycemia influenced concerns about the disease. Additionally, levels of stress and anxiety were similar regardless of the type of therapy. **CONCLUSION:** The greatest impact of T1D on the quality of life of children and adolescents occurs in the psychological realm. Conversely, engaging in physical exercise and having a good income positively influence QoL. Thus, it is evident that socioeconomic conditions can significantly affect the life experience of these young individuals. Therefore, it is crucial to adopt a multifaceted approach that includes accessible specialized psychological support and public policies to ensure the well-being of patients.

**274. QUALITY OF LIFE OF CATARACT PATIENTS BEFORE AND AFTER PHACECTOMY: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Cataract is a condition that results in congenital or degenerative opacification of the lens, causing gradual loss of vision. The quality of life (QoL) of cataract patients is impacted by reduced visual acuity, with limitations in daily activities, mobility and increased risk of accidents. Cataracts are treated with a surgical procedure called phacectomy. The aim of this study was to analyze the impact of cataracts on patient's quality of life, as well as to establish a relationship with post-surgical treatment. **METHODS:** This is an integrative review conducted in June 2024, following the PRISMA protocol. The search was carried out in the PubMed, Scielo, Lilacs and Google Scholar databases using the descriptors "quality of life", "cataract" and their English translations. Primary studies published in the last five years, written in Portuguese or English and aligned with the proposed theme were included. Review articles, meta-analyses, case reports and uncontrolled studies were excluded. **RESULTS:** Initially, 413 studies were found, 404 of which were excluded according to the exclusion criteria and 9 articles were selected according to the aim of the study. In these articles, the analysis of the quality of life of cataract patients before and after phacectomy varied between the following questionnaires: National Eye Institute Visual Function Questionnaire (NEI-VFQ-25) and World Health Organization Quality of Life Group Questionnaire (WHOQOL-OLD). Based on the former, the studies showed that the average scores obtained by patients in the domains relating to quality of life are directly proportional to those relating to visual capacity. Improvement was seen in the domains: Activities at a distance, Activities up close, Ability to drive a car, General health and Vision. At the same time, the WHOQOL-OLD questionnaire showed greater satisfaction among the elderly with their achievements and hope for future goals. Also in the WHOQOL-OLD questionnaire, higher scores were found after cataract surgery in the Past, Present and Future Activities domain and there was an increase in the score in the Social Participation domain. **CONCLUSION:** Therefore, the high impact of phacectomy on cataract patients is evident, expressed by the increase in quality of life scores associated with daily activities after surgery in all the articles evaluated in this review.

**275. CERVICAL CANCER SCREENING IN SAPPIC WOMEN**

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**INTRODUCTION:** The term sapphic refers to women who relate to other women, and can be lesbian, bisexual, pansexual or "queer". Therefore, because they do not relate to men, there is a false belief that they have no risk of acquiring the human papillomavirus (HPV), which distances this population from medical care and performing tests such as cervical cytology, better known as papanicolaou. Therefore, the objective of this summary is to discuss the relationship between sapphic women (SM) and cervical cancer screening (CCU). **METHODS:** This is a literature review, in which we searched the Google Academic and Pubmed portals, using as eligibility criteria original articles published from 2020, without language restriction, and that specifically presented the theme, obtaining 13 articles. The descriptors used were: "cervical cancer"; "human papillomavirus"; "WSW". **RESULTS:** CCU screening is an efficient way to diagnose cervical lesions early, however, because it depends on patients' adherence, it ends up being performed in smaller quantities in MS, either because they believe they have no risks, or because they are afraid of the exam. In this sense, understanding that the transmission of HPV in MS can occur through skin contact, oral sex and shared use of sexual objects, is an important point of CCU screening in this population. That is, despite having lower transmission rates than heterosexual women, it is still necessary to perform a pap smear in MS. However, in addition to the lack of knowledge about transmission, there is also the medical patient barrier, since there is a difficulty in communicating with this population, both for fear of prejudice and pain associated with the use of the speculum, which further reduces adherence. Thus, the inclusion of the self-collection of vaginal cell material for HPV screening can be a solution for screening in MS, since it excludes the discomfort caused by the speculum, however, a change in the doctor-patient relationship that decreases the distance between MS and gynecological health is still necessary. **CONCLUSION:** Thus, it is perceived that debating effective forms of screening for MS is indispensable, in addition to being important the health education of this population to raise awareness about the possibility of the disease and the importance of regular visits to the gynecologist.

## 276. RELAPSE OF VISCERAL LEISHMANIASIS AND HEMOPHAGOCYTIC SYNDROME RECURRENCES: CASE REPORT

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**INTRODUCTION:** In Brazil, Visceral Leishmaniasis (VL) is caused by the protozoan *Leishmania chagasi* and, although rare, can be associated with Hemophagocytic Syndrome (HS), which is the tissue destruction due to hyperactivation of the immune system, potentially leading to multiple organ failure. This research aimed to describe a case of VL recurrence with HS and was approved with the opinion number 6.465.800 by the local Research Ethics Committee. **CASE DESCRIPTION:** A 1 year and 3 month old male presented to the emergency room with fever, pain, and distension abdominal for 7 days. The abdomen was globular, distended, with palpable liver and spleen at 3 and 8 cm, respectively, from the margin of the ribs. Laboratory results showed Hemoglobin (HB) of 4 g/dL; Leukocytes (WBC) 5310/mm<sup>3</sup>; Platelets (PLT) 10.900/mm<sup>3</sup>. In the first hospital unit, he received red blood cell and platelet transfusions. He was transferred to a tertiary hospital, where a bone marrow smear showed *Leishmania sp.* Along with the VL diagnosis, HS was diagnosed based on the following criteria: fever, splenomegaly, hypertriglyceridemia (682 mg/dL), hyperferritinemia (2368 ng/mL), and pancytopenia (PLT 24000/mm<sup>3</sup>, WBC 3260/mm<sup>3</sup>, and HB 6.9 g/dL). The patient was treated with liposomal amphotericin B (3 mg/kg/day) for 10 days. There were no records of treatment for HS. He was discharged on the 15th hospitalization day. Two months after, he returned to the emergency room with fever and abdominal pain. Laboratory results showed HB 5.7 g/dL, WBC 2760/mm<sup>3</sup>, and PLT 11200/mm<sup>3</sup>. Treatment with Glucantime (20 mg/kg/day) for 2 days, and immunoglobulin (500 mg/kg/day) for 5 days was initiated. He was referred to a tertiary hospital with hepatosplenomegaly (both palpable 10 cm from the margin of the ribs, respectively). A new bone marrow biopsy confirmed VL, diagnosing, in conjunction with clinical signs, a recurrence of the infection associated with HS, based on the following criteria: fever, splenomegaly, hypertriglyceridemia (421 mg/dL), hyperferritinemia (10888 ng/mL), and pancytopenia (PLT 23000/mm<sup>3</sup>, WBC 4570/mm<sup>3</sup>, and HB 7.7 g/dL). Treatment was changed to liposomal amphotericin B (4 mg/kg/day) for 10 days, immunoglobulin (500 mg/kg/day) for five days, and dexamethasone (10 mg/m<sup>2</sup>/day) for 8 weeks, with a 50% dose reduction every two weeks. The patient was discharged on the 19th of hospitalization day with clinical and laboratory improvement. **CONCLUSION:** The recurrence of VL and secondary HS in immunocompetent patients is rare and severe. The treatment is effective when VL and HS are diagnosed early. Therefore, documenting the case is necessary for proper recognition.

## 277. RELATIONSHIP BETWEEN FOOD CONSUMPTION AND DEPRESSION IN PATIENTS WITH DIABETES MELLITUS

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**INTRODUCTION:** The population with Diabetes Mellitus (DM) faces a high prevalence of depression, reaching around 10.5%, approximately double the prevalence in non-diabetics. Behaviors such as lack of physical exercise, imposition of a restrictive diet and daily intake of medication may be linked to the existence of depressive symptoms. The aim of this study was to assess the relationship between food consumption and depression in DM in the Brazilian adult population. **METHODS:** This is a retrospective cross-sectional study based on data from the 2023 Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey (VIGITEL). It included individuals aged ≥18 years, living in the Brazilian capitals and the Federal District, who self-reported a diagnosis of DM. The exposures were regular consumption (≥5 days a week) of fresh foods and ultra-processed foods. The outcome was self-reported diagnosis of depression. Descriptive analyses of the variables were carried out, showing absolute (n) and relative (%) frequencies. Pearson's chi-square test was used to assess the association between food consumption and depression, with a significance level of 5%. VIGITEL was approved by the Ministry of Health's National Commission for Ethics in Research with Human Beings (CAAE: 65610017.1.0000.0008). **RESULTS:** 21,690 individuals were studied, of whom 13.03% (n=2,826) reported a diagnosis of DM and 13.7% (n=2,972) of depression. With regard to food consumption, 88.5% (n=19,195) said they regularly consumed some kind of fresh or minimally processed food and 10.84% (n=2,350) regularly consumed ultra-processed foods. In the DM population, individuals who did not regularly consume in natura or minimally processed foods had a higher prevalence of depression (21.56% p=0.341) compared to those who regularly consumed them (19.04%). On the other hand, individuals with DM who regularly consumed ultra-processed foods had a higher prevalence of depression (23.23%; p=0.299) compared to those who did not regularly consume this type of food (18.98%). **CONCLUSION:** Food consumption was related to the prevalence of depression in individuals with DM. This highlights the need for multi-professional measures aimed at educating these patients about their diet, in order to combat the metabolic and psychiatric complications associated with DM.



**278. CONGENITAL SYPHILIS: EPIDEMIOLOGICAL ANALYSIS OF BAIXADA MARANHENSE FROM 2019 TO 2023**

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**INTRODUCTION:** Congenital syphilis, caused by the bacterium *Treponema pallidum*, is a disease transmitted to the child during pregnancy via transplacental transmission (vertical transmission). The disease is prevented by identifying and treating maternal syphilis during prenatal care. Its complications include spontaneous abortion, premature birth, malformation of the fetus, deafness, blindness, mental disability and/or death at birth. Given this scenario, the aim of this study was to outline the epidemiological profile of congenital syphilis in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study, with a quantitative approach, which used data provided by the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years surveyed were between 2019 and 2023 and race, gender, prenatal care, maternal syphilis, partner treatment and age group were analyzed. **RESULTS:** In the period studied, 2,551 cases of congenital syphilis were recorded in the state of Maranhão, of which 2.2% (N=55) occurred in the Baixada Maranhense. Of those registered, 81.8% (N=45) were brown and 52.7% (N=29) were female; in 92.7% of cases (N=51) the mothers had prenatal care and in 50.9% (N=28) they had maternal syphilis. The maternal partner was not treated in 50.9% (N=28) of the pregnancies, around 80% (N=44) had the disease by the age of 6 days and 96.4% (N=53) showed clinical improvement. **CONCLUSION:** Congenital syphilis is a disease that has high rates of therapeutic success when associated with early identification of maternal infection. However, the persistence of its manifestation in Maranhão may be associated with low rates of treatment of the maternal sexual partner. In view of this, measures are still needed to prevent maternal reinfection, with an emphasis on health education and treatment of affected partners.

**279. THE EPIDEMIOLOGICAL SITUATION OF SCHISTOSOMIASIS IN THE BAIXADA MARANHENSE REGION BETWEEN 2017 AND 2021**

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**INTRODUCTION:** Schistosomiasis is a blood parasitosis caused by *Schistosoma mansoni* in Brazil. It is directly associated with low levels of basic sanitation and it composes the group of neglected tropical diseases. Brazil's Maranhão state represents an endemic area for schistosomiasis, with active transmission. Since 1976, Brazil has implemented the Schistosomiasis Control Program as a strategy for active search, diagnosis and treatment of cases in endemic regions. This abstract aims to analyze the epidemiology of schistosomiasis in the Baixada Maranhense region, northern state of Maranhão, between 2017 and 2021. **METHODS:** This is a descriptive and retrospective epidemiological study, with a quantitative approach, carried out using secondary data from the Schistosomiasis Control Program (SCP) in the period of 2017 to 2021, available in the Department of Information and Technology of the Sistema Único de Saúde (DATASUS). **RESULTS:** In the analyzed period, there were notified 2,033 schistosomiasis positive coproscopy assays in Baixada Maranhense, of which 96,4% were treated. Among the analyzed years, the percentage positive coproscopies presented expressive variation: 2,09% (2017); 3,45% (2018); 5,87% (2019); 5,78% (2020); 5,96% (2021). There was a considerable negative variation (-46,4%) in the studied population between 2017 (12.846 people) and 2021 (5.888 people). In 2017, the proportion of infected, regarding the amount of eggs, was: 1 to 4 eggs (66,25%); 5 to 16 eggs (25,10%); 17 or more eggs (8,64%). In 2021, that proportion was: 1 to 4 eggs (56,41%); 5 to 16 eggs (37,89%); 17 or more eggs (5,69%). An expressive reduction in the analyzed population was observed, so that the active search, recommended by the SCP, was reduced. The percentage of positive coproscopy assays was up by 185,16% from 2017 to 2021, such that the Baixada Maranhense became again an endemic area of medium positivity for schistosomiasis. **CONCLUSION:** The increase in the amount of positive coproscopies, associated with the reduction of people inquired for schistosomiasis, represents a concerning epidemiological risk for the Baixada Maranhense region. These results should guide surveillance interventions and targeted control to this region.

**280. PNEUMOCOCCAL VACCINE IMMUNIZATION RATE IN THE CITY OF PINHEIRO-MA, FROM 2018 TO 2022**Beatriz Ferreira Nascimento<sup>1</sup>, Samyra Elouf dos Santos Simão<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Pneumococcal infections represent a notable cause of morbidity and mortality. In Brazil, since 2010, the 10-valent pneumococcal vaccine (VPC10) was implemented on the National Immunization Program in a two-dose schedule for children, the first dose at two months and the second at four months old, with a booster dose at 12 months, aiming for 95% as a coverage target. This abstract aims to analyze VPC10's coverage in the city of Pinheiro, Maranhão, between 2018 and 2022. **METHODS:** This is a descriptive retrospective epidemiological study, with a quantitative approach, carried out using secondary data from the Department of Information and Technology of the Sistema Único de Saúde (DATASUS), on the National Immunization Program Informational System (SI-PNI) on the period from 2018 to 2022. **RESULTS:** In the analyzed period, there were given 181.710 doses of VPC10 in Pinheiro. Between 2018 and 2022, the National Immunization Program coverage target was not achieved at any year and a notable downward trend was observed: the vaccinal coverage in Pinheiro decreased 65,2% in five years. VPC10 reached its highest coverage rate in 2018 (69,45%) and the lowest coverage rate in 2022 (24,17%) in Pinheiro, while in the state of Maranhão the rates were 89,43% in 2018 and 78,03% in 2022. Analyzing the city indicators in comparison to the estaduais in 2018 and 2022, there was a bigger downward variation in Pinheiro (-65,2%) than Maranhão's state (-12,7%). An expressive disparity in the vaccination coverage between Pinheiro and Maranhão was observed, in a way that the state-city heterogeneity represents the existence of a pocket of susceptibles. **CONCLUSION:** It is understood that vaccination must be analyzed as a collective immunization strategy, once a higher coverage represents a protection factor both for vaccinated and unvaccinated people, as well as for those who weren't vaccinated due to unreached age, contraindications or other reasons. VPC10's low immunization rates found in the analyzed period represent a concerning community risk predictor in the city of Pinheiro. These results reaffirm the need of targeted interventions that aim to comprehend and modify the accountable determinants for this reality.

**281. IMMUNE THERAPY IN CANCER TREATMENT: AN INTEGRATIVE REVIEW**Lucas Cunha Pereira<sup>1</sup>; Isadora Costa Santos Gregório<sup>1</sup>; Raissa Carmem Sousa Silva<sup>1</sup>; Maria Do Rosário Oliveira Dos Anjos<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Cancer is one of the leading causes of death worldwide. Despite advances in treatment, the search for more effective and less toxic therapies is ongoing. Immunotherapy, which uses the patient's own immune system to fight cancer, is emerging as a promising strategy because, by stimulating the body's natural defenses, it offers the possibility of personalized treatments with less toxicity. Thus, the objective of the study will be to evaluate the importance and benefits of immunological therapy in cancer treatment. **METHODS:** This study adopted an integrative literature review to compile and synthesize the existing scientific knowledge on the subject. The research was conducted in the following databases: Scielo, PubMed and Lilacs, covering articles published in the last 5 years, in Portuguese and English. The descriptors used were: "Cancer", "Tumor, Immunotherapy" and "Natural Defense" and the search strategies were based on the combination of these terms in both languages. **RESULTS:** The final sample for analysis consisted of 10 articles in which the thematic analysis technique was used, with the discussion organized into categories, namely: 1) The use of immunological therapy associated with other therapies for cancer treatment; 2) Use of immunotherapy in medical practice; 3) Advantages of using immunological therapy in cancer treatment. Thus, the present study reported by authors, evidence through research and tests carried out, that the use of immunological therapy is a less aggressive treatment that can lead to improvement in individuals with cancer cells, causing fewer side effects and low toxicity, which directly lead to an improvement in quality of life, with the most used being monoclonal antibodies, cancer vaccines and Car T-Cells, which correspond to cells produced in the laboratory originating from the defense cells of the human body. **CONCLUSION:** It was noted that all studies share the understanding that immunological therapy against cancer develops a satisfactory response in various types of malignant tumors, in which immunological drugs function as a therapeutic strategy to promote the reprogramming of defense cells, and therefore, increase medical efficacy related to the benefits of using the body's natural defenses in fighting tumor cells.

**282. THE EFFECTIVENESS OF VAGUS NERVE STIMULATION IN MOTOR REHABILITATION IN POST-STROKE PATIENTS**Osnar Gustavo de Santana Lima<sup>1</sup>, Priscylla Vieira Vezzosi<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The reduction or loss of functionality of an individual's upper limbs after a stroke can limit the performance of daily activities, thus compromising their quality of life. Conventional motor rehabilitation involves performing consistent and repetitive movements, which improve learning and help restore motor function. Despite this, not all patients obtain satisfactory results, and deficits may remain. As a result, approaches to combine with the conventional approach have been developed, such as Vagus Nerve Stimulation (VNS), in which the implantation of electrodes in the vagus nerve helps in the activation of neuroplastic circuits that increase motor learning. Therefore, the objective of this study is to evaluate the effectiveness of vagus nerve stimulation in improving the motor function of the upper limbs in post-stroke patients.

**METHODS:** A systematic review was carried out in June 2024 in the PubMed database, with the help of the descriptors "stroke treatment" and "vagus nerve stimulation", combining with the Boolean operator "AND". The criteria considered for choosing the articles were: being in English, being a clinical study, dealing with the topic addressed and having been published between 2018 and 2024. In total, 21 studies were found, of which 6 were selected for progression of the research.

**RESULTS:** All clinical trials showed an increase in motor function in post-stroke patients through the association of vagus nerve stimulation and conventional repetitive exercises, and the association proved to be more promising than isolated forms of rehabilitation, i.e., with joint stimulation to exercises applied in rehabilitation. Furthermore, most of the studies analyzed emphasized the use of vagus nerve stimulation in a less invasive way, via transcutaneous auricular access. **CONCLUSION:** From the selection and collection of data, it was possible to conclude that stimulation of the vagus nerve associated with post-stroke motor function rehabilitation exercises was significant in the rehabilitation of those patients. Furthermore, it is necessary to carry out more clinical studies, including through the transcutaneous auricular route, increasing the size of the population and study time, to ensure greater reliability of the results.

**283. THE EPIDEMIOLOGY OF ACQUIRED SYPHILIS IN MARANHÃO: A DESCRIPTIVE LITERATURE REVIEW**Pedro Inojosa Ferreira da Silva<sup>1</sup>, Ana Paula Rabelo Levandowski<sup>1</sup>, Ana Maria Ramos Goulart<sup>1</sup>, Saani Maressa Lima Ribeiro<sup>1</sup>, Juscelino Silva Machado Filho<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Sexually Transmitted Infection, syphilis is caused by the bacterium *Treponema pallidum*. Despite being underreported, it represents a serious public health problem in Brazil, where transmission occurs mainly through sexual intercourse, and when left untreated, it causes severe systemic complications. In 2018, 75.8 cases/100,000 inhabitants were recorded. Considering its prevalence and impact on quality of life, the study aimed to describe the epidemiology of acquired syphilis in Maranhão between 2019 and 2023. **METHODS:** In the data collection, the electronic databases of the Notifiable Diseases Information System (SINAN/DATASUS) were used, with searches based on the terms: epidemiology, syphilis, prevalence. Inclusion criteria considered: the period from January 2019 to December 2023, the epidemiology of the infection: education, age, sex, and ethnicity, excluding cases outside the pandemic period. Data extracted from the SUS were compiled into tables to facilitate the recognition of the infection profile in Brazil. The severity of syphilis and the small number of updated publications on the subject justified the study. **RESULTS:** The analysis presented the main findings as proposed in the study, with 9,520 cases of syphilis reported in Maranhão, with males being the most affected (58.5%) of the cases. The age group with the highest prevalence was between 20 and 39 years (51.68%), with the majority being illiterate (81%) of the total in the state. Additionally, the brown race stood out with 6,667 cases (70%) of the notifications. The epidemiology of acquired syphilis in Maranhão between 2019 and 2023 revealed a worrying scenario, with a significant number of cases among young men, with low education levels, and belonging to the brown race; information that, although valuable, when compared to the literature, highlights gaps and inconsistencies regarding the epidemiology of the infection. Therefore, the statistics evidence the persistence of the public health problem and emphasize the need for effective prevention strategies, early diagnosis, and accessible and adequate treatment, as the active age group facilitates transmission, and low education hinders awareness and the search for treatment. **CONCLUSION:** The continuation of detailed studies on the epidemiology of different STIs, particularly syphilis, is crucial in guiding public policies and more effective preventive measures in controlling and reducing cases, thus alleviating the burden on the public health system in Brazil.

**284. MIGRATORY PATHS OF VENEZUELAN WOMEN MIGRANTS**Caroline Assunção Dantas<sup>1</sup>; Zeni Carvalho Lamy<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Venezuela is facing an economic and social crisis, leading to the forced displacement of people who cross the borders of neighboring countries, including Brazil, in search of refuge. A large part of the migrant population is made up of women who, in situations of prolonged displacement, face serious health challenges, including an increased risk of rape, trafficking, sexual assault, and other threats. This study aims to understand the migration trajectories of Venezuelan migrant women. **METHODS:** Qualitative study carried out in three cities that are part of the migratory corridor in Brazil: Pacaraima and Boa Vista (Roraima) and Manaus (Amazonas), from September to October 2021. In-person and online semi-structured interviews were conducted, recorded, with adult and adolescent Venezuelan migrant women. Thematic content analysis was used. The study was approved by the Research Ethics Committee in accordance with the principles outlined in Resolution 466/12 of the Health National Council - HNC, CPEC 35617020.9.1001.5087. **RESULTS:** Seventy-six women were interviewed and their narratives were categorized into: "The beginning of the migratory journey", "Violence suffered" and "Gender issues: being a migrant woman". In the first category, the high unemployment rate, precarious wages, inability to guarantee basic goods, and limited access to health care, including medicines and specialized treatments caused by the crisis in Venezuela, marked the beginning of the migratory journey. Regarding the situations of violence suffered, three main forms were found: robbery, physical assault and sexual violence, mainly related to irregular migration. The gender-related challenges reported in the interviews were: physical difficulties; lack of conditions for personal hygiene, especially during menstruation; and lack of support for sexual and reproductive health care. **CONCLUSION:** Forced migration in a crisis context, as in the case of Venezuelan women who arrived in Brazil, requires international efforts to provide support to the country in crisis and to the host countries. The need for a migration policy that specifically addresses risks, situations of violence and sexual and reproductive health care throughout the displacement of migrant women is emphasized.

**285. MOOD DISORDERS: EPIDEMIOLOGICAL PROFILE IN THE STATE OF MARANHÃO BETWEEN 2018 AND 2022**Francisca Erika Ferreira Sousa<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Cácio Laylson Lira Silva<sup>1</sup>, Wellyson da Cunha Araújo Firmo<sup>1</sup>.<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** Mood disorders (MD) are characterized by changes in mood or affect and are related to genetic and environmental factors. In Brazil, it is the most prevalent group of psychiatric disorders and, although mental health programs are established in the public system, including in the state of Maranhão, they have not yet adequately responded to the existing demand. Thus, this study aimed to identify the epidemiological characteristics of hospitalizations for MD in Maranhão between 2018 and 2022. **METHODS:** This is an epidemiological study of the transversal and descriptive type, with a quantitative approach, and comprises the period between 2018 and 2022. Data were obtained through the Hospital Information System of SUS via the Department of Informatics of the Unified Health System. The following variables were selected for analysis: number of hospitalizations, age group, sex, color/race and average hospital stay. The data obtained were tabulated and analyzed by the program Microsoft Excel. **RESULTS:** In the period analyzed, 5,567 hospitalizations were recorded for MD. The data show a growth trend between 2020 and 2022, with the highest index recorded in the last year (1,220). The age group analyzed comprised individuals between 5 and 80 years of age. People between 30 and 39 years appear with the highest number of admissions (1,461). In addition, there was a 62.0% increase in the number of hospitalizations of young people aged 15 to 19 years between the first and last year of the study, revealing the significant growth of MD in this population. The difference in the incidence between sexes is minimal, but hospitalizations are prevalent among men (50.3%), except for 2022, when there was a predominance of female patients. Regarding color/race, it is noted that the self-declared white population has a higher proportion of hospitalizations. However, this variable may be biased, since 37.7% did not identify their ethnicity. Finally, the average length of hospital stay was 45.2 days, reducing from 2018 to 2022. **CONCLUSION:** The prevalence of hospitalizations for MD in Maranhão was higher in men - with the exception of the last year -, who are in the third decade of life. In addition, there was an increase in MD in the state of Maranhão, especially among adolescents. Thus, the study makes an alert for developing strategies that strengthen mental health care networks in the public system of Maranhão.

**286. RADICAL TRACHELECTOMY FOR FERTILITY PRESERVATION: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Cervical cancer is the fourth most common cancer in women. Approximately 84% of new cases and 87% of deaths from cervical cancer occur in less developed regions. In Brazil, the estimated risk is 15.85/100,000 women. When treating these patients, it is important to be clear about the possibility of ovarian conservation and fertility. Fertility-sparing surgery was conceived, initiated and named Radical Vaginal Trachelectomy (RVT) by teacher Daniel Dargent in 1986. Patients with early-stage cervical cancer who desire future fertility may be candidates for RVT. Therefore, the present study aims to analyze the indications and development of the RVT procedure in cervical cancer. **METHODS:** An integrative review of the literature covering the years from January 2014 to June 2024 was carried out in the PubMed, Scielo and Lilacs databases. Regarding the exclusion criteria, they were applied to duplicate articles in the journals and without direct relation to the research. **RESULTS:** Radical vaginal trachelectomy (RVT) is an alternative treatment to preserve fertility in patients with cervical cancer. The criteria for indication of RVT focus on: desire to become pregnant, epidermoid, adenocarcinoma or adenosquamous histological types, tumor up to 2 cm in diameter, stromal invasion up to 10 mm, negative lymph nodes and negative margin of 5 mm. In patients with early tumors and desire to become pregnant, radical trachelectomy (vaginal, abdominal or laparoscopic) with lymphadenectomy is considered the standard treatment. Surgery begins with an inventory of the cavity and frozen biopsies of any suspicious lesion, followed by pelvic lymphadenectomy with prior investigation of sentinel lymph nodes and, if negative upon frozen section, trachelectomy is performed. A prospective study evaluating the feasibility of conservative surgery in women with early-stage, low-risk cervical carcinoma suggests that conservative surgery is feasible and safe in this patient population. The pregnancy rate is approximately 63%. It is important to emphasize that many patients give up pregnancy after surgery. Pregnancy loss in the second trimester and prematurity are related to trachelectomy, mainly due to premature rupture of membranes. **CONCLUSION:** In conclusion, VRT shows good reproductive results without compromising oncological safety, being an oncologically safe technique in women with early-stage cervical cancer. The rate of full-term pregnancies still needs to be improved.

**287. EYE TRAUMAS AND THEIR MAIN OPHTHALMOLOGICAL CHANGES**

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**INTRODUCTION:** Ocular trauma is defined as an injury to the eyeball, which is the result of physical or chemical aggression on its structures, resulting in damage to the patient's visual acuity. This can be classified according to severity as mild, moderate or severe. Or even in terms of type, which can be blunt, penetrating or caused by burns. Studies suggest that eye trauma is the most important cause of unilateral visual loss in developing countries. According to the World Health Organization, around 55 million eye injuries occur each year and of these, 750,000 require hospitalization. The present work aimed to clarify the medical community about the most prevalent ocular traumas and their main ophthalmological changes. **METHODS:** This is an integrative review of the literature, using the descriptors "ophthalmological changes", "ocular trauma" and "injuries resulting from trauma". Scientific articles available in the Google Scholar, Scientific Electronic Library Online (SCIELO) and Pubmed directories were selected, with publications from 2018 to 2024. **RESULTS:** There was a predominance of cross-sectional studies based on medical records in emergency hospitals in the Center-West and Southeast regions of the country. These indicate that the most common blunt injuries result from domestic, work and even leisure accidents, ranging from superficial to complex injuries, such as retinal detachment. There is a predominance in young adults, ranging from 72 to 95% in males. Regarding penetrating trauma, the corneal type was the most prevalent, mostly caused by automobile accidents. These, as they are more serious, may be associated with hemorrhage in the anterior and posterior segments of the eye, rupture of the iris, displacement of the lens and orbital fractures are common complications. Chemical injuries are less frequent, leading to loss of visual function, depending on the type of substance that came into contact with the epithelium. In extreme cases, eye trauma can result in enucleation. **CONCLUSION:** Corneal penetrating trauma was the most prevalent, followed by blunt trauma. Thus, it is inferred that the management of patients suffering from ocular trauma can be initiated by the general practitioner and should not be solely the responsibility of the ophthalmologist. A quick and adequate response in primary medical care minimizes complications such as loss of visual acuity.

**288. TUBERCULOSIS IN MARANHÃO: AN EPIDEMIOLOGICAL ANALYSIS**Handrya Karla Martins Gomes <sup>1</sup>, Vinicius Ryan Araujo de Oliveira <sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Tuberculosis is a contagious infection caused by the bacterium *Mycobacterium tuberculosis*, which can be transmitted through airborne particles from coughing, speaking, or sneezing. In laboratory diagnosis, Koch's bacillus can be identified through sputum smear microscopy. Treatment lasts 6 months and is provided free of charge by SUS (Brazilian Unified Health System). However, drug use, smoking, and HIV infection can interfere with the disease's therapy. The review aimed to describe the epidemiology of the infection in Maranhão between 2013 and 2023. **METHODS:** This was a descriptive, cross-sectional review study conducted with data from the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS). The referenced research was gathered from virtual libraries and databases: Scientific Electronic Library Online (SciELO) and Google Scholar, including full articles and reviews in Portuguese and English related to the topic and descriptors. The variables analyzed included ethnicity, gender, age, socioeconomic and educational status, as well as HIV testing, smoking habits, and outcomes such as cure and death. Descriptive statistics were used to quantify the results. **RESULTS:** Of the number of diagnosed and reported tuberculosis cases in Maranhão (n=29,299), the highest prevalence occurred in 2023 (n=3,419; 11.6%) and the lowest in 2014 (n=2,186; 7.4%). Among those affected, (n=19,529; 67%) were men; (n=20,961; 71.5%) were brown individuals; (n=19,039; 65%) had incomplete basic education or were illiterate; and (n=12,580; 43%) were aged between 20 and 39 years. HIV testing was positive in (n=2,594; 9%) and (n=4,054; 13.8%) did not undergo testing; (n=19,543; 67%) did not use tobacco. A total of (n=18,787; 64%) achieved cure; (n=3,754; 12.8%) abandoned treatment; and (n=1,247; 4.2%) died from the disease. **CONCLUSION:** The results showed a growing trend in the number of cases over the decade, with tuberculosis being a serious public health problem, more prevalent among the brown population, those in vulnerable situations, and individuals with low educational levels. These socioeconomic and educational factors may be associated with difficulties in accessing health services and the high rate of treatment abandonment, hindered by a lack of understanding of the importance of completing the treatment protocol. Therefore, a continuous education process is necessary to clarify that, despite being curable, if untreated, tuberculosis can lead to death.

**289. ULTRASONOGRAPHY AS A TOOL FOR ASSESSING AIRWAYS IN PREGNANT WOMEN**Carlos Vinícius Vale de Andrade Costa<sup>1</sup>, Celso Antônio Ramos Magalhães<sup>1</sup>, Ana Beatriz Figueiredo Portillo dos santos<sup>1</sup> Isabela Pinheiro Souza<sup>1</sup> Lucas Gabriel Feitosa da Exaltação<sup>1</sup> Welbert Souza Furtado<sup>1</sup>, Plínio Cunha Leal<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Airway management in pregnant women is a challenging task due to the anatomical and physiological changes that occur during pregnancy, which increase the risk of anesthetic complications. In response to these challenges, ultrasonography emerges as a promising tool for preoperative assessment, aiding in the prediction of difficult airways. Thus, this study aims to evaluate the efficacy of ultrasonography in the assessment of airways in pregnant women. **METHODS:** This is a systematic review of the literature, which used the PubMed and Embase databases. The descriptors used for the research were "ultrasound," "ultrasonography," "pregnancy," "obstetric," and "airway." Inclusion criteria: studies published between 2019 and 2024, in Portuguese, Spanish, or English. Exclusion criteria: studies that did not analyze the descriptors together, deviating from the proposed theme of the present article. **RESULTS:** Seven articles that followed all methodological criteria were analyzed, demonstrating that ultrasound offers a detailed visualization of both supraglottic and subglottic airway structures. Through this visualization, it is possible to accurately measure the width and volume of the tongue, the thickness of the soft tissue of the neck, and critical diameters such as the subglottic, which are essential for predicting intubation difficulties. Additionally, parameters such as the HMDR ratio (hyoid-mandible distance ratio) and the measurement of the pre-epiglottic area were particularly effective in predicting difficult laryngoscopy. **CONCLUSION:** As a result, the studies highlight the high sensitivity and specificity of ultrasound in predicting difficult intubation in pregnant women, especially those with conditions like preeclampsia, where anatomical changes are more pronounced. The comprehensive review of the studies reveals that the use of ultrasonography for airway assessment in pregnant women offers significant advantages over traditional methods. The precise visualization of anatomical differences in pregnant women's airways not only enhances the ability to predict difficult airways but also facilitates precise interventions, such as emergency cricothyroidotomy, where the correct location of structures is crucial. Thus, the use of ultrasound represents a significant advancement in obstetric anesthetic practice, promoting greater safety in airway management.

**290. AN ANALYSIS OF PALLIATIVE CARE IN PATIENTS WITH HEART FAILURE**

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**INTRODUCTION:** Heart failure (HF) is a disease that causes debilitating symptoms due to poor heart function and which gradually worsens, shortening the patient's life, who often has no possibility of recovery. In this sense, it is common that, for the best comfort of the patient and their family, they enter a palliative care regime, that is, an interdisciplinary service with a global approach to care that improves the quality of life of those living with serious illnesses, regardless of the prognosis. Therefore, this work aims to present the latest studies regarding the use of palliative care in patients with heart failure. **METHODS:** The present study consists of a literature review based on the PubMed database. "Palliative care" and "heart failure" were used as descriptors combined with the use of the Boolean operator "AND". 2588 articles were found in the search, of which 12 works remained after applying the inclusion criteria: reviews published in the last 5 years, with free access and with descriptors in the title/abstract. **RESULTS:** The studies included in this work highlight the effectiveness of palliative care interventions in promoting quality of life. Significant improvements were observed in the well-being of patients, evidenced by the reduction in symptom burden and improved results in the functional level related to HF, assessed using the New York Heart Association (NYHA) classification. There was also a significant decrease in hospital readmission and mortality rates. Furthermore, it was also observed that palliative care, when carried out earlier, is associated with a better understanding of the patient's care preferences, with advance planning, greater satisfaction of the patient and the caregiver, in addition to improvements in the quality of life related to health, reduction of symptoms and less burden on health services. **CONCLUSION:** This review corroborates palliative interventions, given the promising results on the patient's quality of life. Furthermore, it is clear that spirituality could be a target for improving clinical and patient-centered outcomes.

**291. UPDATES ON CANNABIS SATIVA IN CONTROLLING THE SYMPTOMS OF PARKINSON'S DISEASE**

Osnar Gustavo de Santana Lima<sup>1</sup>, Cristiane Fiquene Conti<sup>1</sup>.

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**INTRODUCTION:** Parkinson's disease is a neurodegenerative, chronic and progressive pathology, characterized by the manifestation of motor symptoms, such as bradykinesia and resting tremor, and non-motor symptoms, such as anxiety, depression and insomnia. There is no curative treatment, but only drugs that help control symptoms, such as levodopa. Currently, there has also been an increasing use of *Cannabis sativa* compounds for this purpose. That said, the objective of the present work was to gather updates on the use of marijuana compounds to control the symptoms of Parkinson's disease, through the evaluation of different clinical studies with these compounds. **METHODS:** A systematic review was carried out in June 2024 in the PubMed database, using the words "*Cannabis sativa*" and "Parkinson disease" as descriptors, combining with the Boolean operator "AND". The criteria considered for choosing the articles were: dealing with the topic addressed, being in English, being a clinical study and having been published between 2020 and 2024. In total, 120 articles were found, of which 7 were selected for carrying out of the research. **RESULTS:** Almost all studies showed no evidence of reduction in motor symptoms through the use of marijuana compounds, such as bradykinesia and rigidity. Furthermore, no improvement was observed in non-motor symptoms, such as anxiety, depression and insomnia. Regarding adverse effects, the most observed were drowsiness and dizziness. **CONCLUSION:** Therefore, it is concluded that the use of *Cannabis sativa* compounds does not significantly contribute to the control of the symptoms of Parkinson's disease. In the groups subjected to the compounds, the adverse effects were not serious, with more dizziness and drowsiness. In addition, to ensure greater reliability of the results, it is necessary to carry out studies with a larger sample space and a more significant period of time.

**292. URGENT HOSPITALIZATIONS FOR NECK, THORAX, OR PELVIS FRACTURES IN MARANHÃO**

Pedro Victor Aguiar Carvalho<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, João Victor Cunha Silva<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, Ana Carolina Leal Melo<sup>1</sup>, Santiago Servin<sup>1</sup>.

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**INTRODUCTION:** Neck, thorax, and pelvic fractures are severe injuries that often require urgent interventions, leading to significant complications and high hospitalization rates. These fractures can occur as a result of serious accidents, falls from great heights, or direct impacts. This study aims to describe the frequency, sociodemographic characteristics, and economic impact of urgent hospitalizations due to neck, thorax, and pelvis fractures in Maranhão between 2019 and 2023. **METHODS:** This is a descriptive and quantitative epidemiological study based on data from the Information and Informatics Department of the Unified Health System (DATASUS). It includes patients of all ages in Maranhão between 2019 and 2023. The variables described were: number of admissions, total cost, average AIH value, year of care, mortality rate, and municipality. Since it involves secondary data, approval from the Ethics Committee was not required. **RESULTS:** Between 2019 and 2023, 1,541 urgent hospitalizations for neck, thorax, or pelvis fractures were recorded in Maranhão, with a mortality rate of 2.7%. The total cost was R\$2,786,467.11, with an average cost per hospitalization of R\$1,808.22. The year 2022 had the highest number of cases (324), and the average hospital stay was 10.2 days. Hospitalizations were most common in São Luís (36.8%), Imperatriz (19.8%), and Presidente Dutra (9.7%). Regarding sociodemographic characteristics, men accounted for 75.3% of hospitalizations, and the age group most affected was 30 to 39 years (20.2%). **CONCLUSION:** The data reveal a high prevalence of urgent hospitalizations due to neck, thorax, and pelvis fractures in Maranhão between 2019 and 2023, with a higher concentration in São Luís, Imperatriz, and Presidente Dutra. These hospitalizations resulted in significant costs and prolonged hospital stays, with a mortality rate of 2.7%. These findings highlight the need for more effective preventive measures and improvements in health resource management to reduce the financial and clinical impact of these injuries.

**293. USE OF CONDOMS IN QUILOMBOLA COMMUNITIES: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** The condom is essential for birth control and the prevention of sexually transmitted infections (STIs), enabling a full exercise of reproductive rights, which are not a reality for some women. Women in Quilombola Communities (QCs) assume a secondary role in family planning and are at risk of contracting STIs, as the use of barrier contraceptives (BCs) is low. The aim of this study is to provide an overview of the reality of BC use in QCs and the existing vulnerabilities. **METHODS:** This is an integrative literature review conducted through an advanced search in the Virtual Health Library, using the descriptors "Condoms" and "Quilombolas," with the boolean operator AND. The inclusion criteria were: works in Portuguese published in the last five years. The exclusion criteria included incomplete materials, paid content, and duplicate articles. A total of 7 works were found, and 2 were included. **RESULTS:** A descriptive study in Sergipe noted that, out of 367 individuals, 333 engaged in practices with a fixed partner, but only 9.9% reported consistent condom use. Among those with occasional partners (191), only 15.7% reported correct usage, and regarding both fixed and occasional partners, 90.6% engaged in unprotected sex with both. In this QC, sociodemographic data indicated that the majority were Black, had incomplete elementary education, and earned less than R\$600 per month. Alcohol was consumed by 61.1% of the population, with 17.2% at risk of dependency. The survey revealed a prevalence of syphilis at 3.3%, and a history of STIs at 6.8%, in addition to 82.8% not receiving supplies for use. A survey conducted in QCs in the interior of Bahia highlighted that the use of BCs led to partner avoidance and attempts by women to control usage based on social stigmas. **CONCLUSION:** The use of condoms in QCs remains limited, as the availability does not meet the population's needs, and there are no specific campaigns to encourage adherence to their use. The consumption of alcohol and drugs tends to reduce the perception of risk and complicate usage. Many men refuse to use condoms, thereby putting their partners at risk of both sexually transmitted infections (STIs) and unintended pregnancies due to lack of education. Therefore, educational measures are necessary to change the current perspective and promote condom use in QCs.



**294. COMBINED USE OF VIDEOLARYNGOSCOPE AND FIBEROPTIC BRONCHOSCOPE IN OROTRACHEAL INTUBATION**

Celso Antônio Magalhães Ramos<sup>1</sup>, Carlos Vinícius Vale de Andrade Costa<sup>1</sup>, Italo C. Martins<sup>1</sup>, Ludmyla Assunção de Paula<sup>1</sup>, Luís Phelipe Gama de Moraes<sup>1</sup>, Pedro Igor de Sousa Rios<sup>1</sup>, Cyro Franklin Conceição Vieira<sup>2</sup>.

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**INTRODUCTION:** Orotracheal intubation (OTI) is an essential procedure in airway management. However, OTI can be challenging in certain cases, such as in patients with complex laryngeal anatomy, facial trauma, or obesity. In some instances, the isolated use of a videolaryngoscope (VL) or fiberoptic bronchoscope (FB) may not be sufficient to overcome these challenges. In this context, the combined use of VL and FB emerges as a promising alternative to facilitate OTI, leveraging the benefits offered by both tools. This study aims to evaluate the efficacy and safety of this combined approach. **METHODS:** This is a systematic literature review, conducted using the PubMed and Embase databases. The search was performed up to June 2024, utilizing the following keywords: "Videolaryngoscopy", "Fiberoptic", "Bronchoscopes". A total of 9 articles were selected based on the inclusion criteria: articles published in the last 7 years, without language restriction, addressing the combined use of VL and FB in OTI. **RESULTS:** In this review, some studies demonstrated that combined OTI had a higher success rate and shorter procedure time on the first attempt compared to FB alone, which can be attributed to the multifaceted view provided by the VL, ensuring greater safety and awareness during the procedure. Obese patients with goiter also showed better success rates with the hybrid approach, increasing the likelihood of successful intubation when a single device fails, and contributing to a lower number of complications in difficult airways. In patients with trauma or distorted airway anatomy, the FB aided in navigating anatomical distortions, and when used in conjunction with the VL, it created space for visualization and effective tube advancement, reducing the potential for trauma in the region. **CONCLUSION:** The comparative analysis of the reviewed articles indicates that the combined use of VL and FB is an extremely effective and safe technique for various procedures, with higher success rates, shorter procedure times, and a lower risk of complications compared to the isolated use of these devices. It is recommended that the combined use of VL and FB be considered a valid strategy for anticipated difficult airways. Moreover, the monitored combination of both cameras provides a simultaneous "micro-view" of the larynx through the FB and a "macro-view" through the VL, aiding in better decision-making by the medical team and serving educational and professional training purposes.

**295. USE OF ENDOSCOPY IN THE COVID-19 PANDEMIC: ANALYSIS OF IMPACTS ON CLINICAL PRACTICE**

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**INTRODUCTION:** COVID-19 transmission occurs through contact with respiratory secretions, making upper gastrointestinal endoscopies (UGI) a high-risk procedure during the pandemic due to their generation of aerosol particles. As a result, UGI was limited to urgent cases during this period. Given its importance in diagnosing and monitoring patients, the use of UGI posed significant challenges in mitigating the spread of the virus. This study aims to analyze the impacts of the COVID-19 pandemic on clinical practices related to digestive endoscopy. **METHODS:** An integrative review was conducted following the PRISMA protocol, utilizing the Scielo, PubMed and LILACS databases. The search strategy involved the following descriptors and Boolean operators: "(endoscopy OR digestive system endoscopy) AND (COVID-19 OR SARS-CoV-2)" in PubMed and "(endoscopy) AND (COVID-19)" in the other databases. After conducting two screening rounds—first by reading titles and abstracts, followed by a full analysis of the articles—the inclusion criteria were applied: primary studies from 2020 to 2024, full-text availability, and no language restrictions. **RESULTS:** Of the 27 articles identified, 5 were selected, excluding those outside the inclusion criteria, focusing on nasal endoscopy, reviews and repeated studies. Among the selected studies, 80% compared the pre- and post-pandemic periods, while 20% focused exclusively on the pandemic. A reduction in UGI procedures of 46% to 52.1% was observed, along with a 37.2% decrease in patients with comorbidities. Females were more prevalent in 2019, but there was no gender prevalence in 2020. The most common indications for UGI, both pre- and post-pandemic, included biliary-origin abdominal pain and gastrointestinal bleeding. The average patient age increased from 64.13 to 65.11 years, with a 200% increase in cancer diagnoses and a 30% increase in time between hospital admission and procedure initiation. Among COVID-19 patients, the incidence ranged from 1.7% to 3.1%. Mortality due to upper gastrointestinal bleeding secondary to hypovolemic shock was 3.92%, while no deaths were attributed directly to SARS-CoV-2. The infection rate among healthcare workers was 38.0%. **CONCLUSION:** The studies demonstrate significant impacts of the COVID-19 pandemic on the use of UGI, including a reduction in the number of procedures and longer wait times. These changes likely reflect efforts to adhere to biosafety protocols aimed at protecting both patients and healthcare teams. Moving forward, it is essential to develop safety protocols and emergency response strategies that allow clinical practice to continue without interruption, even in pandemic situations.

**296. REDUCTION OF HYPERPROLACTINEMIA IN A MALE PATIENT: A CASE REPORT**

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**INTRODUCTION:** Hyperprolactinemia is defined by elevated serum prolactin levels, a hormone secreted by the pituitary gland, which may arise due to physiological or pathological mechanisms, including prolactinomas. Clinically, hyperprolactinemia manifests with hypogonadism, infertility, and galactorrhea, being more prevalent in females. In males, the clinical picture is often dominated by hypogonadotropic hypogonadism, with symptoms such as reduced body hair, erectile dysfunction, and diminished libido. The literature suggests that prolactinomas in males tend to exhibit more aggressive behavior. This case report aims to present a macroprolactinoma with unusual features compared to the commonly reported findings. The study was approved by the Research Ethics Committee of the University Hospital of the Federal University of Maranhão (CEP-HUUFMA), under approval number 5.100.838 and CAAE 52877721.4.0000.5086. **CASE DESCRIPTION:** A male patient, V.C.L.H., presented to the neuroendocrinology clinic in 2017 following an incidental finding of a pituitary mass on cranial computed tomography after a motorcycle accident. Initial laboratory investigations revealed markedly elevated serum prolactin levels (9,533 ng/mL, diluted 1:100) and significantly low testosterone levels (37.48 ng/dL). Magnetic resonance imaging (MRI) of the sellar region identified a 4 cm macroadenoma with compression of the optic chiasm, and extension into the cavernous sinuses and internal carotid arteries. Visual field testing demonstrated right-sided temporal hemianopia. Additionally, the patient developed central hypothyroidism, which required levothyroxine replacement therapy. Despite these findings, the patient denied experiencing symptoms typically associated with hyperprolactinemia or hypogonadism. Pharmacological management with cabergoline up to 2.5 mg weekly was initiated, resulting in a substantial reduction in prolactin levels to 10.73 ng/mL and a decrease in tumor size to 2.3 cm within 8 months. The patient continues to be followed biannually, demonstrating excellent clinical outcomes. His most recent prolactin level was 4.73 ng/mL, and MRI showed a partially empty sella turcica with no residual tumor, while on a reduced cabergoline dose of 1 mg per week. **CONCLUSION:** This case highlights the potential variability in the clinical course of prolactinomas in male patients, particularly regarding tumor aggressiveness and response to treatment. Although prolactinomas in men are traditionally described as more aggressive, this case suggests that timely diagnosis and appropriate therapeutic intervention with dopamine agonists, such as cabergoline, may lead to favorable outcomes. The significant tumor shrinkage and normalization of prolactin levels observed in this patient support the hypothesis that delays in diagnosis may contribute to the severity of the disease more than inherent tumor aggressiveness. These findings underscore the importance of early detection and intervention to optimize clinical outcomes in male patients with prolactinomas.

**297. INTERPERSONAL AND SELF-INFLICTED VIOLENCE IN THE MUNICIPALITY OF CODÓ BETWEEN 2012 AND 2022**

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**INTRODUCTION:** Violence is a public health problem that can be defined as the intentional use of physical force or power against oneself or another person, with a high probability of resulting in injuries, death, psychological harm, among other effects. This study aims to analyze the profile of interpersonal and/or self-inflicted violence recorded through notifications in the municipality of Codó between 2012 and 2022. **METHODS:** This is a descriptive, retrospective study with a quantitative approach, using data collected from the Disease Information System, available in the public domain database (DATASUS). The variables include sex, age group, race, education level, and place of occurrence. **RESULTS:** A total of 1,316 cases of interpersonal/self-inflicted violence were reported. The highest number of cases was recorded in 2012 (n=545; 41.41%), with the largest age group being individuals aged 20-29 years (n=342; 25.99%), and males had the highest incidence (n=662; 50.30%). Additionally, race (n=611; 46.43%) and education level (n=801; 60.87%) were predominantly reported as white/unknown, indicating inadequate form completion. Furthermore, public streets were the most common location for interpersonal/self-inflicted violence (n=678; 51.52%). **CONCLUSION:** Based on the data regarding interpersonal/self-inflicted violence in Codó, Maranhão, between 2012 and 2022, it is evident that there is an urgent need for preventive and intervention measures to reduce these incidents. The high incidence of cases, especially in 2012, highlights the importance of strategies targeting the most affected age groups, such as young adults aged 20 to 29, and the locations with the highest occurrence, such as public streets. Moreover, the lack of information on race and education level indicates the need for improvements in data collection for a more comprehensive understanding of the phenomenon.

**298. LECTON CRITERIA FOR CORNEAL TRANSPLANT RECIPIENTS**

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**INTRODUCTION:** The cornea functions as a protective barrier for the eye, acting like a lens over the iris, modulating the entry of light into the eyeball. Damage affecting corneal transparency and/or irregularities may lead to visual acuity deficits, potentially progressing to blindness. In this context, corneal transplantation is considered the gold-standard therapy to prevent visual impairment. In 2021, it was estimated that approximately 180,000 corneal transplants were performed annually worldwide. However, for effective outcomes, this procedure must be carefully evaluated. This study aims to present to the medical community the essential criteria for selecting corneal transplant recipients. **METHODS:** This is an integrative literature review, analyzing publications from the Scielo and PubMed databases from 2019 to 2024. The search descriptors used were "Criteria," "Recipient," and "Corneal Transplant". **RESULTS:** Data analysis showed that selection criteria for corneal transplant recipients vary according to medical guidelines and the individual needs of each patient. The most prominent criteria were corneal condition, ocular disease stability, and the patient's general health condition. The most frequently cited selection criterion was the corneal condition, requiring the presence of a disease or injury significantly impairing vision and not treatable by other means. Selection of these corneas is based on three principles: harmlessness, transparency, and vitality. Ocular disease stability was another important criterion, as it ensures a more effective and lasting transplant. General health status also proved fundamental in determining transplant feasibility. Medical conditions such as diabetes, autoimmune diseases, or severe infections may affect healing and post-transplant recovery. **CONCLUSION:** Selecting suitable candidates for corneal transplantation is essential to ensure that the procedure benefits those most in need and with the highest likelihood of success. It is crucial to implement evaluation criteria for the recipient's cornea, ocular disease stability, and general health to prioritize patients with severe injuries and potential for visual recovery. The unification of these criteria across Brazil is ensured by the National Transplant System (SNT).

**299. EPIDEMIOLOGICAL ANALYSIS OF KIDNEY FAILURE IN THE ELDERLY IN MARANHÃO FROM 2014 TO 2023**

Laura Batista Cruz<sup>1</sup>, Giovanna Melo Evangelista<sup>1</sup>, Maria Eduarda Carneiro de Moraes<sup>1</sup>, Williston Sousa Aguiar Júnior<sup>1</sup>, Matheus Silva Alves<sup>1</sup>.

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**INTRODUCTION:** Renal failure is a pathological condition that occurs due to the failure of the renal structures that filter metabolic waste from the blood. This pathology commonly affects the elderly and can be caused by aging and the diseases that are common in this social group, such as hypertension, diabetes, obesity and other glomerular pathologies. Thus, the objective of this study was to characterize the epidemiological profile of kidney failure in the elderly in the state of Maranhão between 2014 and 2023. **METHODS:** This is a retrospective and quantitative epidemiological study, based on the collection of information from the Department of Informatics of the Unified Health System (DATASUS), in relation to hospitalization rates, mortality rate, sex, color and race. The period studied was from January 2014 to December 2023. **RESULTS:** During this period, there were 24,865 hospital admissions for kidney failure in Maranhão, of which 10,770 were among the elderly, around 43.3%. This group had a mortality rate of 19.55%, while among the non-elderly it was 7.22%. When looking at gender, it was noted that the majority were men, with 6491 of the cases (60.2%) while females accounted for 4279 (39.7%) of the hospitalizations. However, the mortality rate was higher in women (20.94%) compared to men (18.63%). With regard to race and color, the brown group stood out, with 4,333 hospitalizations and a mortality rate of 18.86%. When analyzing the period of hospitalizations, there was a greater number in 2022 and 2023 (1582 and 1468, respectively) and also an increase in numbers over the 10 years. In relation to the municipalities of Maranhão, there was a prevalence of hospitalization cases in Caxias, Imperatriz and São Luís (862, 1612, 3411) with around 54.6% of the total, as well as the mortality rate (34.11%, 19.85%, 17.56%). **CONCLUSION:** Kidney failure in the elderly is a significant health problem in the state of Maranhão, as they are the most affected by the disease, which has increased the last 10 years, with high hospitalization and mortality rates. The information obtained is relevant for implementing preventive measures and improving access to the basic care needed, especially among the brown population of both sexes in the cities of Caxias, Imperatriz and São Luís.

**300. ANALYSIS OF SEPSIS MORTALITY IN MARANHÃO: DESCRIPTIVE STUDY FROM 2013 TO 2022**

Cácio Layson Lira Silva<sup>1</sup>, João Vítor Albuquerque e Silva<sup>1</sup>, Francisca Erika Ferreira Sousa<sup>1</sup>, Ana Luiza Espínola Lobo<sup>1</sup>, Louisa Ferreira Carvalho<sup>1</sup>, Wellyson da Cunha Araújo Firmo<sup>1</sup>.

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**INTRODUCTION:** Sepsis is characterized by the occurrence of a systemic inflammatory response syndrome with organ dysfunction, triggered by an inadequate reaction to infection. It affects people of all ages, but is most common in newborns, the elderly and those with a certain degree of immune system deficiency. It is the most common cause of admission to non-coronary intensive care units. With this in mind, this study aimed to analyze the epidemiological profile and mortality rates of patients hospitalized for sepsis in the state of Maranhão between 2013 and 2022. **METHODS:** This is a descriptive, cross-sectional analysis with a quantitative approach, using data from the Department of Informatics of the Unified Health System. The variables analyzed were: the number of hospitalizations, gender, race, age group, deaths and mortality rate from 2013 to 2022. Statistical analysis was carried out using SPSS 25.0 for Windows software, with Kendall's tau-b and chi-squared tests, adopting a significance level of 5%. **RESULTS:** During the study period, 16,477 patients were hospitalized with sepsis in Maranhão. Of these, 53.56% were male, while 46.44% were female. As for the number of deaths, 6,997 were recorded, of which 3,662 (52.34%) were male and 3,335 (47.66%) female. Statistical analysis revealed a positive and significant correlation between the number of hospitalizations and deaths ( $\tau = 0.644$ ;  $p = 0.009$ ). The mortality rate for patients hospitalized for sepsis in the state was 42.46%. The most affected age group was 80 years or older (58.32%), followed by 70 to 79 years (52.87%), 60 to 69 years (47.92%) and 50 to 59 years (44.05%). The brown race had a high mortality rate (43.06%), followed by the white race (42.89%) and the indigenous race (41.54%). **CONCLUSION:** The impact of sepsis on public health is significant, as can be seen from the high mortality rates. It is therefore necessary to emphasize preventive measures, early diagnosis and appropriate intervention as fundamental measures for better outcomes.

**301. THE APPLICATION OF MOHS SURGERY AS A THERAPY FOR BASAL CELL CARCINOMA**

Camille Luiza Ferreira Gomes Costa<sup>1</sup>, Déborah Rocha de Araújo Gomes<sup>1</sup>, Márcia Sousa Barroso Santiago<sup>1</sup>, Rafaella Moreira Silva<sup>1</sup>, Teresa Cristina Barbosa Ribeiro do Vale<sup>1</sup>, Cláudia Tamires Sousa Leite<sup>1</sup>.

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**INTRODUCTION:** The Mohs micrographic surgery (MMS) is a technique created by Dr. Frederic Mohs, indicated for the excision of cutaneous neoplasms, such as basal cell carcinomas (BCC), which represent 80% of skin cancers. In MMS, the tumor is removed, mapped and processed into fragments for intraoperative histopathological evaluation, enabling the total removal of cancer cells and greater tissue conservation. The objective of the study is to understand MMS and its benefits compared to other therapeutic modalities. **METHODS:** This is an integrative literature review, carried out from the PubMed, Virtual Health Library and Google Scholar databases, using the descriptors: "Mohs Surgery", "Basal Cell Carcinoma", "Conventional Surgical Excision". The study presented as research question: "What are the benefits of Mohs surgery as a treatment for basal cell carcinoma?". The inclusion criteria adopted were publications from the last 15 years, referring to MMS techniques and their application in the treatment of BCC. Thus, 16 studies were used in the study. **RESULTS:** The Mohs surgery is considered an effective treatment for the resection of skin tumors, especially BCC, in which there was a discrepancy in the recurrence rate between MMS (1.1%) and conventional surgery (6.3%), less aesthetic and functional impact, and greater patient satisfaction. Studies have demonstrated the effects of MMS, especially in lesions in the facial risk area, in order to allow a complete intraoperative analysis of the margins, in addition to offering tissue preservation of 56.6%, revealing minimal aesthetic and functional damage during the treatment of BCCs. In addition, studies analyzed 83 MMS, of which 89.1% were BCC, presenting only one recurrence and two metastases during treatment, evidencing the benefits of MMS. However, the technique still needs improvements to spread its access. **CONCLUSION:** Therefore, Mohs micrographic surgery is consolidated as a preferred therapeutic option for basal cell carcinoma, since it minimizes the risk of recurrence and improves functional and aesthetic results. Furthermore, this field still lacks studies to promote advances and increase access to MMS.

**302. IMPACT OF EARLY PEDIATRIC CARDIOPULMONARY RESUSCITATION ON SURVIVAL AND PROGNOSIS**

Hildelene Amélia de Araújo Dantas<sup>1</sup>, Darleane Batista de Oliveira Angelim<sup>1</sup>, Danielle Bandeira Campos Rodrigues<sup>1</sup>, Isabelle Maria Veloso Braz<sup>1</sup>, Haline Cristina Gonçalves Dantas de Almeida<sup>1</sup>, José Daniel Oliveira Angelim da Silva<sup>1</sup>, Erika Chirley Chaib Araújo<sup>1</sup>.

<sup>1</sup> EDUFOR Faculty

**INTRODUCTION:** Early cardiopulmonary resuscitation (CPR) plays a critical role in the survival of children experiencing cardiac arrest, being determinant for clinical outcome and quality of life of survivors. Cardiac arrests in pediatric patients represent a significant challenge in emergency medicine, as they involve high mortality rates and risk of severe neurological sequelae. Unlike adults, whose cardiac arrests are usually associated with cardiovascular diseases, in children they can result from factors such as asphyxia, drowning, trauma, and infections, which makes immediate response even more crucial. Recent studies indicate that the response time between the event and the initiation of CPR is one of the main determinants of survival and long-term neurological prognosis. **METHODS:** We conducted a systematic review and meta-analysis of studies published between 2010 and 2023 focusing on children who experienced cardiac arrest and received CPR. Studies were included if they were indexed in databases such as PubMed, Scopus, and Web of Science. Inclusion criteria required the analysis of time to CPR initiation, survival rates, and post-intervention neurological status. Data were extracted and analyzed using statistical software to calculate odds ratios (OR) and 95% confidence intervals (CI). **RESULTS:** The analysis included 15 studies, totaling 1,200 cases of pediatric cardiac arrest. Children who received early CPR (within 3 minutes of cardiac arrest) had a survival rate of 78%, compared to 45% for those who received late CPR. Additionally, 65% of patients who received early CPR had favorable neurological outcomes after six months, compared to 30% in the late CPR group. The meta-analysis revealed that early CPR is associated with a significant improvement in survival (OR: 2.5; 95% CI: 1.8-3.4) and neurological prognosis (OR: 2.1; 95% CI: 1.5-3.0). **CONCLUSION:** Early pediatric cardiopulmonary resuscitation (CPR) significantly improves survival and neurological outcomes in children experiencing cardiac arrest. These findings underscore the importance of rapid interventions and ongoing CPR training for healthcare professionals. Public health policies should prioritize the promotion of early CPR training to enhance the response to pediatric emergencies.

**303. MELANOMA SPOTLIGHT: NEW PERSPECTIVES THROUGH BIOPHYSICAL MARKERS**

Ana Caroline Muniz Silva<sup>1</sup>, Luciana Magalhães Rebelo Alencar<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Melanoma is a skin neoplasm resulting from the malignancy and proliferation of melanocytes, being the least prevalent form among skin tumors. The worst prognosis associated with melanoma stems from the difficulty in establishing effective therapy and early diagnosis. These limitations highlight a critical gap in understanding the molecular and structural behavior of the tumor. Thus, this study integrates Atomic Force Microscopy (AFM) and Raman Spectroscopy (RS) as tools for ultrastructural and molecular analysis of human melanoma. **METHODS:** The AFM analysis was performed on a Multimode 8 in PeakForce mode. qp-HBC model probes with a spring constant of 0.5 N/m and a tip radius of 2 nm were used for scans in 15×15 μm<sup>2</sup> areas of three sample groups. Statistical analyses and graphs were obtained using OriginLab software. The study also employed a Raman spectrometer (Model T64000, Horiba), operating in single mode. The analyzed cell lines were the SK-MEL-19 and SK-MEL-103 melanomas, and the MCR-5 control. **RESULTS:** The AFM analysis comparing the sample groups showed ultrastructural changes in the topographic maps and in the data for surface area, volume, and roughness. These changes are due to morphological alterations associated with malignant transformation, which impact the structural conformation of the cell, altering the biophysical properties of the nucleus, cell membrane, and cytoskeleton. The Young's modulus data indicated that the more aggressive metastatic cell, SK-MEL-103, exhibits greater malleability, demonstrating the invasive potential of aggressive cancer. Furthermore, melanomas present lower adhesive forces due to the negative nature of the tumor cell membrane. Raman spectroscopy analysis identified biochemical components of the cellular structures, such as lipids, proteins, and nucleic acids, revealing the different biochemical expressions in melanoma, such as in Amide I, Proline, Tyrosine, Hydroxyproline, Tryptophan, Nitrogenous Bases, Phospholipids, and Lipids. **CONCLUSION:** The AFM maps revealed ultrastructural and nanomechanical modifications in tumor cells, indicating conformational changes at the cell membrane and cytoskeleton levels. Raman spectroscopy detected vibrational modes in melanoma cells, revealing spectral differences between control and cancerous samples. These findings promote potential biophysical approaches for early detection and targeted cancer treatments, expanding advancements in the field of oncology.

**304. EPIDEMIOLOGICAL PROFILE OF KIDNEY FAILURE IN NORTHEASTERN BRAZIL BETWEEN 2013 AND 2023**

Williston Sousa Aguiar Júnior<sup>1</sup>; Maria Eduarda Carneiro De Moraes<sup>1</sup>; Laura Batista Cruz<sup>1</sup>; Giovanna Melo Evangelista<sup>1</sup>; Rafaela Dias De Medeiros<sup>1</sup>; João Vitor Albuquerque e Silva<sup>1</sup>; Matheus Silva Alves<sup>1</sup>.

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**INTRODUCTION:** Chronic Kidney Disease (CKD) consists of damage to the renal parenchyma with a progressive and irreversible loss of kidney function, affecting all components—glomerular, tubular, and endocrine. This disease impacts the entire life experience of the patient, necessitating lifestyle adjustments, continuous treatment, and structured living to avoid exacerbations. CKD is a significant cause of hospitalizations and mortality in Brazil, home to the world's third-largest dialysis program, underscoring the need to understand how this condition affects the Northeast region. This study aims to determine the epidemiological profile of kidney failure in the Northeast of Brazil from 2013 to 2023. **METHODS:** This research is an epidemiological, descriptive, and quantitative study based on publicly available data from the Department of Informatics of the Unified Health System (DATASUS) between August 2013 and August 2023. The variables analyzed include the number of hospitalizations, deaths, age range, race/color, and sex, compared across the states of Northeast Brazil. **RESULTS:** The Northeast region reported a total of 253,393 hospitalizations due to kidney failure. The state of Bahia accounted for the highest number of cases (27.3% of the total), while Sergipe had the lowest (2.5%). The predominant age group was 60-64 years, comprising 10.6% of the total cases. Males were more affected (57%), and the most prevalent race was mixed-race (51.6%). Regarding deaths, the Northeast registered 34,544, which represents 23.7% of all deaths due to kidney failure in Brazil. Bahia recorded the highest number of deaths (29%), and Rio Grande do Norte the lowest (4.6%). Among these deaths, the age group most affected was those over 80 (22.4%), with males accounting for 57.3% of all deaths, and mixed-race individuals making up 50.8% of fatal cases. **CONCLUSION:** The epidemiological profile of reported cases reveals that chronic kidney disease (CKD) is a significant cause of hospitalizations and deaths in Northeast Brazil, with 253,393 hospitalizations and 34,544 deaths between 2013 and 2023. Bahia had the highest number of cases and deaths. The most affected age group was 60-64 years, predominantly males and mixed-race individuals. These data highlight the need for effective public health policies and a strengthened nephrology care system in the region.

**305. PROFILE OF DEATHS AND HOSPITALIZATIONS DUE TO MENINGOCOCCAL INFECTION IN MARANHÃO FROM 2019 TO 2023**

Layla Carolina Barros Leite<sup>1</sup>; Davi Nunes Marques<sup>1</sup>; Marcus Vinícius Alves Gomes<sup>1</sup>; Isadora Leal Tavares Silva<sup>1</sup>; João Victor Cunha Silva<sup>1</sup>; Lucas Gabriel Feitosa Da Exaltação<sup>1</sup>; Santiago Nogueira Servin<sup>1</sup>.

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**INTRODUCTION:** Meningococcal infections are caused by the bacterium *Neisseria meningitidis* and are mainly transmitted through close and prolonged contact with respiratory secretions from an infected person. Meningococcal infection can progress rapidly and has a significant mortality rate, especially in cases of sepsis. Thus, understanding the epidemiology of this infection is essential for developing prevention and treatment strategies. This study aims to describe the epidemiology of hospitalizations due to meningococcal infection in Maranhão from 2019 to 2023. **METHODS:** This is a retrospective epidemiological study on hospitalizations due to meningococcal infection in Maranhão, using data from the Hospital Information System of SUS (SIH/SUS) from 2019 to 2023. The study analyzed mortality rates, average length of stay, and number of hospitalizations, using variables such as health macroregion, age group, sex, race or ethnicity, and type of care provided. **RESULTS:** A total of 88 hospitalizations due to meningococcal infection were reported in Maranhão during the analyzed period, with a peak in 2019, representing 34.09% (30) of cases. In total, there were 17 deaths, with a mortality rate of 19.31%, and the highest prevalence in 2019, with 9 reported deaths (52.94%). Additionally, males were more prevalent in both hospitalizations (56.81%) and deaths (64.70%). Regarding race, the highest prevalence of hospitalizations occurred among individuals of mixed race (56.81%). Analyzing hospitalizations by age group, children had the highest rate (44.3%), followed by adults (37.5%) and the elderly (18.2%). In terms of deaths, adults showed the highest prevalence (52.9%), followed by the elderly (29.4%) and children (17.7%). The northern macroregion stood out with the highest number of hospitalizations (59%) and highest mortality rate (70.5%). **CONCLUSION:** The findings reveal a high incidence and mortality rate, particularly in 2019. Males were predominant in both hospitalizations and deaths. While children had the highest hospitalization rates, adults had the highest death rates. Lastly, the northern macroregion had the highest number of hospitalizations and deaths. This underscores the need for more effective efforts, such as expanding vaccination coverage in Maranhão.

**306. ANALYSIS OF THERAPEUTIC ADHERENCE IN ELDERLY WITH DIABETES IN PRIMARY CARE IN PINHEIRO**Maressa Chagas Oliveira<sup>1</sup>; Carlos Alberto Leite Filho<sup>1</sup>; Amanda Namíbia Pereira Pasklan<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

Funding: Foundation to Support Research and Scientific and Technological Development of Maranhão - FAPEMA

**INTRODUCTION:** Type 2 diabetes mellitus (T2DM) is highly prevalent among the elderly. In 2019, approximately 463 million adults (aged 20-79) had diabetes mellitus (DM), with one in five of these individuals being elderly. A critical aspect of T2DM management is therapeutic adherence, which requires a complex treatment regimen and behavioral changes, so non-adherence is a common issue. The older age group experiences the highest rates of complications due to poor T2DM management. Considering that the measure of adherence to treatment (MAT) is a validated tool for assessing prescription use, this study aims to evaluate therapeutic adherence among elderly patients with T2DM. **METHODS:** This cross-sectional, quantitative study assessed therapeutic adherence using the MAT, which was administered on a Linkert scale, from October 2023 to June 2024. Elderly individuals aged  $\geq 60$  years who were followed in primary healthcare (PHC) were eligible. Exclusion criteria included self-reported prediabetes or lack of PHC follow-up in the past two years. The study was approved under opinion number 6.082.387. **RESULTS:** The sample of 41 patients, with an average age of 68.4 years, responded with "never", "rarely", "sometimes", "often", "almost always" and "always" to the seven items on the MAT. When asked "have you ever forgotten to take your medication for your illness?" 36.5% of participants answered that they "sometimes" forget. In response to, "have you ever been careless with the timing of your medication for your illness?" 31.7% denied carelessness, while 4.8% agreed they are "always" careless with timing. Regarding questions about stopping medication due to a perceived improvement or worsening of symptoms or for reasons other than medical advice, most respondents reported this "never" occurs. For the item "Have you ever stopped taking medication because you ran out?" approximately half answered "never", while nearly 25% admitted they "sometimes" stop due to running out of medication. Lastly, 82.9% of participants indicated they had "never" stopped taking their DM medication unless advised by a physician. **CONCLUSION:** Most elderly patients with T2DM demonstrated high adherence to medication therapy; however, it is noticeable that a portion of them exhibits lapses in use. This highlights the need for improved health policies for the elderly to enhance therapeutic adherence within this group.

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# Empowering the Research Future of Medical Students: Reflections on the Third Edition of the IJMS World Conference of Medical Student Research (WCMSR), 2024

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## Introduction

Conferences have an impact on many axes, such as enhancing the exchange of medical knowledge, continuing education, and providing opportunities for networking and building relationships, which makes conferences a vital role in developing the medical community.<sup>1</sup> The conferences act as a venue for showcasing the newest research, innovative clinical practices, discussing clinical progress, and fostering new collaborations. They feature workshops, symposia, and interactive discussions that play a vital role in turning theoretical knowledge into practical applications, aiding physicians in enhancing their diagnostic abilities and treatment approaches.<sup>2</sup> The conferences are of good value for education and clinical practice. Being integral to continuing medical education (CME), they enhance participant engagement and create opportunities to practice skills that improve professional practices and healthcare outcomes.<sup>3,4</sup> Conferences offer excellent networking opportunities, and the connections established at these events can foster collaboration across disciplines and institutions. Medical professionals have the chance to engage with peers, learn about the latest research, and participate in practical sessions during these gatherings. These meetings are crucial for connecting with leading experts in the field and staying informed about recent advancements.<sup>5,6</sup>

Medical students worldwide face significant challenges when it comes to participating in international conferences. Financial barriers, travel costs, limited access to publishing opportunities, and the intimidating nature of it all can make it difficult to present their valuable work.<sup>7,8</sup>

Limited access to guidance in preparing and presenting research further compounds the challenge, leaving many students feeling unprepared or overwhelmed by the competitive nature of these events.<sup>4,9</sup> Moreover, a lack of accessible platforms to showcase their work can result in valuable contributions being overlooked or unrecognized.<sup>10</sup> Medical student involvement in conferences

can enhance their confidence in their academic and clinical abilities, and their understanding of the medical profession.<sup>11</sup> Also Giving students the opportunity to publish before graduation will increase their chances of continuing to publish research after graduation by three times compared to other students.<sup>12</sup>

At its core, the **World Conference of Medical Student Research** organized by the **International Journal of Medical Students (IJMS)**, is a celebration of hard work, ambition and innovation. This event is designed to empower medical students from all around the globe to come together, share knowledge and contribute to the advancement of medical science. Students present their findings through oral presentations in front of accomplished researchers and clinicians, who provide valuable feedback on their work, to help refine their skills and grow. Beyond its academic benefits, the Congress creates a sense of global community, and offers a setting for fostering important relationships, whether with fellow colleagues interested in the same topic, or potential mentors offering new possibilities.

One of IJMS's most important missions is to make these conferences accessible. With a participation fee of just \$10, the Congress ensures that students from diverse socioeconomic backgrounds can have their voices heard and their work recognized.

The IJMS hosted its third annual World Conference of Medical Student Research (WCMSR) on October 26, 2024 from 8:00 am to 17:00 pm EST. The event was broadcasted globally via YouTube live where 35 authors from 19 different countries shared their abstracts. The live audience was over 1,000 viewers over the course of the conference with 1,008 votes cast in the category for the most liked abstract by the public.

The IJMS WCMSR 2024 was made possible due to the great team effort of the conference organizing committee whose

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contributions to the success of the conference are detailed here. The warm introduction to the conference was given by the editor-in-chief, Dr. Francisco Javier Escobar-Bonilla and the Master of Ceremonies, Sajjad Ahmed Khan. Our Director of the Conference, Omar Aljbour, oversaw the coordination of the conference vision and timeline. Sajjad Ahmed Khan hosted the conference and announced the award winners with the Director of Logistics, Chloe Carrington. Chloe Carrington coordinated communications between the presenters, judges, and directors, hosted the Streamyard platform tutorial, scouted the judges, and analyzed the scores. The abstract review process was directed by the team of Abstract Managers who included Marsha Zacharia, Sebesi Hanna, Faisal Nageyle, and Sajjad Ahmed Khan. The panel of judges that scored each presentation included Dr. Ruchi Kothari, Mr. Malik Olatunde Oduoye, Dr. Sharjeel Chaudhry, Professor Morenike Ukpong, Dr. Sanskriti Chapagain, Dr. Ashish Gupta, and Dr. Maneeth Mylavarapu. Technical support and logistics were carried out by Camilo Agamez who directed the live streaming of the conference. We also want to send a special thanks to all of the student editors who reviewed the abstracts and the audience who attended the conference.

In the months leading up to the conference date, an open call for abstract submissions was announced on the IJMS website and in its newsletter. The application fee for each abstract submission was kept at \$10 to limit the financial barrier for early career researchers to enter. From there, global abstract submissions were collected, reviewed, and graded. These reviews were coordinated by the abstract managing team who distributed the submissions among the student editors to grade. Entries were analyzed by the editor-in-chief, Dr. Francisco Javier Escobar Bonilla, who made the selection of which abstracts would be presented at the conference. 68 original research and 19 case report abstracts were submitted to be considered for presentation of these 30 original research and 10 case reports abstracts were selected for presentation. 5 of the abstracts selected did not go on to present during the conference.

Once the abstracts featured were selected, the participants were contacted to coordinate the submission of presentation materials and presentation time slot. Presenters created a slideshow and pre-recorded video presentation to fit a quick 7-minute discussion of their abstract.

Judges were scouted by reaching out to those who served at our previous conferences and from an open call for volunteer judges via the IJMS newsletter. The judges received the abstracts they would be grading the week of the conference for optional preview. On the morning of the conference, the judges received a score form that they submitted after each presentation. Each judge prepared one question to be asked after each presentation with the response to be considered in the score.

During the week prior to the conference, a webinar was held and a video recorded to instruct presenters on how to use the broadcast software, StreamYard®. On the day of the conference, all communications were conducted between the participants,

judges, and directors on Whatsapp™. All participants were notified 15 minutes prior to their presentation time to log on and prepare to begin their talks. Participants that were available presented live while those who could not attend live had their presentations displayed via pre-recorded video.

After each presentation and Q&A following, the audience was given about 1 minute to scan a QR code, which displayed a voting form for the audience to vote for their favorite abstract presentation. At the end of the conference, the scores of the abstracts were analyzed, the award winners were announced, and the closing remarks were given.

Awards were given based on the following categories: most liked by the public, special mention to a basic science study, highest score during abstract revision process for case reports and for original research, as well as best case report and best original research presentation based on the judges' scores. The award winners are listed below:

**Most-liked Research Presentation Awarded by the public:**

- [When Immunodeficiency Meets Neurosurgery: Brain Abscess in a Wiskott-Aldrich Syndrome Patient.](#) Kalhara and Pathirana NPNB. Sri Lanka.

**Special mention to the basic science study titled:**

- [Aortic Aneurysm Inflammatory Cell Detection with Deep Learning methods.](#) Kristóf-Gergő Nagy, Csaba Szferle, and Attila Fintha. Hungary.

**Highest score during the abstract revision process for Original Research:**

- *1st place:* [Effects of a Low-Dose Cardiac Rehabilitation Program on Cardiovascular Conditioning Parameters in Patients with Heart Disease.](#) Pablo Reyes, Quirino, José Onan, José Solís, Fernando Tienda, and Ramiro Flores Ramírez. Mexico.
- *2nd place:* [Factors Associated with Greater In-hospital Functional Recovery After Acute Ischemic Stroke with a Social Service Program in Physical Rehabilitation.](#) Fernando Tienda-López, Ricardo López-Soto, Ana Gabriela Cruz-Ramírez, Diego Alemán-Torres, Andrea De Koster-Gámez, Diego Alejandro Ortega-Moreno, Pablo Emilio Reyes-Guzmán, Óscar Alejandro Cavazos-de Luna, Mónica Adriana Medellín-Gómez, Elizabeth Rojas-Márquez, and Fernando Góngora-Rivera. Mexico.
- *3rd place:* [M.A.R.V.E.L.S. "Medical Students Advancing Research, Visibility, Education, Leadership, and Support." A Student-Driven Initiative.](#) Molly Mehta. United States of America.

**Highest score during the abstract revision process for Case Reports:**

- *1st place:* [Anti-NMDA Encephalitis Associated with a Mature Ovarian Teratoma: A Compelling Case Report.](#) Antonio Medina Luna, Octavio César Augusto Caamal Torres, Ramón Adrián Magaña Dávalos, and Carlos Esteban Vidal Valderrama. Mexico.

- *2nd place:* [Benefits of Pulmonary Lobectomy in Infection by Actinomyces](#). Mauricio Alejandro Saldaña-Ruiz, Jaime Eugenio Espinosa-Mora, Mauricio Linnery Rendón-Saldívar, Federico Ortiz-Alonso, and Leopoldo David Trujillo-García. Mexico.

#### Award for best Case Report presentation at the WCMSR based on judge scores:

- *1st place:* [Fox – Fordyce Disease: a case report](#). Monika Rimdeikaite. Lithuania.
- *2nd place:* [Vertebral artery Dissection secondary to Malignant hypertension precipitating a posterior circulation stroke](#). Avi Singh Gandh Gandh, Shruti Vadali, Jivtesh Singh, and Sanwal Singh Mehta. India.

#### Award for best Research Presentation at the WCMSR Original Research based on judge scores:

- *1st place:* [Pain Severity Ratings Among Patients with Comorbid Chronic Pain and PTSD](#). Lily Charron and Eduardo Espiridion. United States of America.
- *2nd place:* [Understanding the Role of Inflammation in ALS-FTSD: A systematic Review and Meta-analysis](#)

[Investigating the Relationship](#). Scott Purdie, William Daley, Fergal Waldron, and Jenna Gregory. United Kingdom.

- *3rd place:* [Psychiatric Outcomes in Patients with Trigeminal Neuralgia Treated with Anticonvulsants with or without Antidepressants: A Retrospective Cohort Study Using TriNetX](#). Ashley Deng and Eduardo Espiridion. United States of America.

This conference is held to achieve the vision and goals of the IJMS in encouraging and enabling medical students to conduct, publish, and present scientific research, and provides a great opportunity to exchange experiences between medical students from different countries

It also aims to facilitate all the barriers that medical students face in participating in medical conferences, making it the only one of its kind that has this goal and provides these opportunities to junior researchers.

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# Abstracts of the IJMS World Conference of Medical Student Research (WCMSR) 2024

**AWARD FOR THE HIGHEST SCORE DURING THE ABSTRACT REVISION PROCESS FOR ORIGINAL RESEARCH, 1<sup>ST</sup> PLACE:**

## 01. EFFECTS OF A LOW-DOSE CARDIAC REHABILITATION PROGRAM ON CARDIOVASCULAR CONDITIONING PARAMETERS IN PATIENTS WITH HEART DISEASE



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<https://www.youtube.com/live/fSpXH-3Xy5w?t=23538s>

**BACKGROUND:** Cardiac rehabilitation is a high-evidence ischemic heart disease. The optimal dose of rehabilitation is not well defined due to the heterogeneity of studies. **AIM:** To evaluate the effects of low-dose cardiac rehabilitation on cardiovascular performance parameters in patients with heart disease. **METHODS:** A longitudinal, retrospective, observational, and analytical study was conducted. Adult patients who enrolled in the cardiac rehabilitation program were included, excluding or removing those without a history of cardiovascular disease, those who did not complete at least 5 rehabilitation sessions, and those with less than 80% attendance at rehabilitation sessions. Results from the initial and final (comparative) conventional and/or cardiopulmonary exercise tests were obtained, which included functional capacity in METs, chronotropic response, pressor response, heart rate and blood pressure recovery, double product, presence or absence of ischemia, arrhythmias, determination of ischemic threshold, and ergospirometry parameters such as peak VO<sub>2</sub>, VE/VCO<sub>2</sub>, O<sub>2</sub> pulse, and aerobic and anaerobic thresholds. **RESULTS:** A total of 32 patients were included, of whom 65.6% were male. A significant increase was observed in peak VO<sub>2</sub> achieved (20.7 vs. 24.2 ml/kg/min, p=<0.001) and the percentage of predicted VO<sub>2</sub> achieved (76.3% vs. 94.5%, p=<0.001) when comparing initial and final maximal exercise tests. Improvement was found in ergometric performance indices, FC/W index (1.18 vs. 1.02, p=0.043) and DP/W index (1.78 vs. 1.39, p=0.041). No significant difference was found regarding pressor or chronotropic response parameters, heart rate and blood pressure recovery, or double product. **CONCLUSION:** It was concluded that in patients with heart disease, a low-dose cardiac rehabilitation program is effective in improving cardiovascular conditioning parameters such as peak VO<sub>2</sub> and reducing the ischemic threshold.

**Table:** Cardiopulmonary Conditioning Parameters Before and After a Low-Dose Cardiac Rehabilitation Program.

Variable	Initial	Comparative	P value
<b>Conventional or cardiopulmonary stress test (n=32)</b>			
VO <sub>2</sub> max, ml/kg/min	20.7 (±7.1)	24.2 (±7.3)	<0.001
% of predicted VO <sub>2</sub> achieved, %	76.3 (±28.4)	94.5 (±29.8)	<0.001
% of maximum heart rate achieved, %	77.5 (±15.6)	80.2 (±15.3)	0.261
Chronotropic index	0.53 (0.37-0.78)	0.63 (±0.27)	0.372
Peak systolic blood pressure, mmHg	151 (±27)	149 (±24.5)	0.418
Peak SBP/ Rest SBP	1.26 (±0.17)	1.26 (±0.17)	0.725
Heart rate recovery at 1st minute, beats	18 (10-23)	18 (±7)	0.753
Peak SPB/3rd minute SBP	1.1 (±0.1)	1.1 (±0.1)	0.536
Double product	18976 (±6221)	19257 (±5806)	0.728
Ischemia, n (%)	6 (18.8)	4 (12.5)	<0.001
Ischemic threshold, METs	3.4 (3.1-6.3)	4.7 (4.7-5.1)	0.029
Maximum ST segment deviation, mm	2.4 (±0.3)	2 (2-2.7)	0.761
Arrhythmias, n (%)	1 (3.1)	0 (0)	
Heart rate/work index	1.18 (0.96-1.88)	1.02 (0.79-1.47)	0.043
Double product/work index	1.78 (1.26-2.42)	1.39 (1.15-2.08)	0.041
<b>Cardiopulmonary stress test (n=20)</b>			
VO <sub>2</sub> max, ml/kg/min	24.6 (±5.4)	28.3 (±6.1)	<0.001
% of predicted VO <sub>2</sub> achieved, %	87 (±29.7)	106.7 (±25.4)	0.001
VE/VCO <sub>2</sub> [n = 20]	38.4 (34.6-40.1)	38.5 (±5.5)	0.79
VO <sub>2</sub> /HR [n = 20]	15.6 (12-17.6)	15.9 (±3.5)	0.003
RER [n = 20]	1.1 (±0.9)	1.1 (±0.05)	0.012

**Legend:** Categorical variables are shown as frequency and percentage. Quantitative variables are shown as mean and standard deviation or median and interquartile ranges (25-75) depending on their distribution.

**Key Words:** Cardiac Rehabilitation, Heart Diseases, Low-Dose, Program.

**AWARD FOR THE HIGHEST SCORE DURING THE ABSTRACT REVISION PROCESS FOR ORIGINAL RESEARCH, 2<sup>nd</sup> PLACE:**

**02. FACTORS ASSOCIATED WITH GREATER IN-HOSPITAL FUNCTIONAL RECOVERY AFTER ACUTE ISCHEMIC STROKE WITH A SOCIAL SERVICE PROGRAM IN PHYSICAL REHABILITATION.**



Fernando Tienda-López<sup>1</sup>, Ricardo López-Soto<sup>2</sup>, Ana Gabriela Cruz-Ramírez<sup>1</sup>, Diego Alemán-Torres<sup>1</sup>, Andrea De Koster-Gómez<sup>1</sup>, Diego Alejandro Ortega-Moreno<sup>1</sup>, Pablo Emilio Reyes-Guzmán<sup>1</sup>, Óscar Alejandro Cavazos-de Luna<sup>1</sup>, Mónica Adriana Medellín-Gómez<sup>1</sup>, Elizabeth Rojas-Márquez<sup>1</sup>, Fernando Góngora-Rivera<sup>3</sup>

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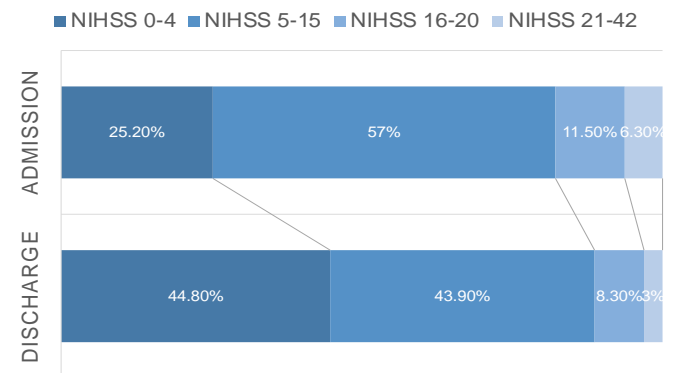
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<https://www.youtube.com/live/fSpXH-3Xy5w?t=20004s>

**BACKGROUND:** Acute Ischemic Stroke (AIS) is one of the main causes of morbidity and mortality worldwide. In this pathology, early physical rehabilitation (<72 hours) is a challenge in public hospitals in Mexico. **AIM:** Evaluate the factors that influence the effectiveness of early rehabilitation after AIS. **METHODS:** Observational, prospective, and analytical study. The sample included all AIS patients admitted from 2022-2024 in the Neurology Service of the "Dr. José Eleuterio González" University Hospital of the UANL and registered in the stroke registry i-Registro-Neurovascular (iReNe). All the patients received early rehabilitation by students of the Medical Technical School in Physical Rehabilitation in the Neurovascular Care Unit of the Neurology Service. The change at admission and discharge in the Lovett, Ashworth, Barthel, and NIHSS scales was evaluated. Descriptive statistics were performed. A logistic regression model was conducted to evaluate the predictors of a reduction in NIHSS score  $\geq 4$ . We considered significance at  $p < 0.05$  with 95% CI, using SPSSv25 for

statistical analysis. **RESULTS:** A total of 296 patients were included, 149 (50.3%) were female, mean age  $61.4 \pm 12.9$  years, mean  $4.0 \pm 3.4$  rehabilitation sessions. The average length of stay was  $7.0 \pm 4.9$  days. The most prevalent risk factors for AIS were hypertension (55.9%), type 2 diabetes mellitus (41.3%) and sedentary lifestyle (39.5%). There was a significant improvement in the median admission and discharge times in NIHSS (8 IQR 4-13 vs 5 IQR 2-11,  $p < 0.001$ ), Barthel (40 IQR 20-65 vs 45 IQR 20-75,  $p < 0.001$ ), Lovett (3 IQR 1-4 vs 3 IQR 2-4,  $p < 0.001$ ) and Ashworth (0 IQR 0-1 vs 0 IQR 0-1,  $p = 0.003$ ); the percentage of patients who showed some improvement was 55.9%, 25.8%, 32.2% and 11.8%, respectively. The 44.8% were discharged with  $\text{NIHSS} \leq 4$ ; 25.1% of patients presented a significant reduction in  $\text{NIHSS} \geq 4$ , and it was associated with female gender (OR 2.033, IC95 1.092-3.785,  $p = 0.024$ ), tobacco withdrawal (OR 3.111, IC95 1.321-7.328,  $p = 0.009$ ) and previous use of antithrombotics (OR 3.015, IC95 1.455-6.248,  $p = 0.003$ ). **CONCLUSION:** Gender, smoking, and use of antithrombotics influence early recovery from AIS. Involvement of students in rehabilitation facilitates functional recovery during hospitalization and represents an efficient and low-cost strategy specially in developing countries like Mexico, being beneficial for students, hospitals and above all, for patients.

**Figure.** Change in NIHSS Scores from Admission to Discharge in Acute Ischemic Stroke Patients Undergoing Early Rehabilitation.



**Key Words:** Ischemic Stroke, Risk Factors, Stroke Rehabilitation, Rehabilitation Centers.

**AWARD FOR THE HIGHEST SCORE DURING THE ABSTRACT REVISION PROCESS FOR CASE REPORTS, 1st PLACE:****03. ANTI-NMDA ENCEPHALITIS ASSOCIATED WITH A MATURE OVARIAN TERATOMA: A COMPELLING CASE REPORT**

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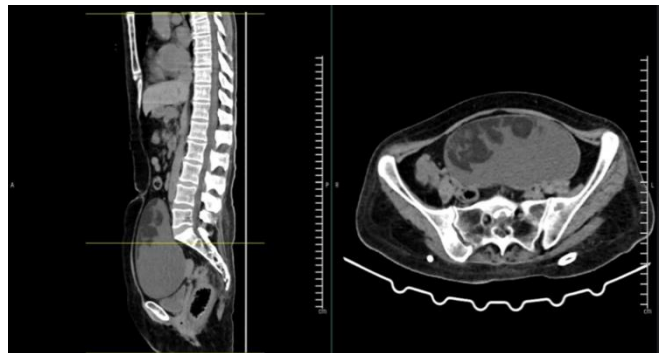


<https://www.youtube.com/live/fSpXH-3Xy5w?t=22370s>

**BACKGROUND:** Anti-N-methyl-D-aspartate receptor (anti-NMDAR) encephalitis is a paraneoplastic and autoimmune disorder characterized by prominent neuropsychiatric manifestations. About 80% of reported cases occur in females, and approximately half of these patients have an ovarian teratoma. The NMDA receptor, located in the hippocampus and forebrain, plays a critical role in memory, cognition, and learning. The pathogenesis of anti-NMDAR encephalitis is driven by an autoimmune mechanism in which the body produces autoantibodies (anti-NMDAR) that internalize and alter the NR1 subunit of the NMDA receptor, leading to decreased synaptic function and neuropsychiatric symptoms. Anti-NMDAR encephalitis accounts for 54% to 80% of autoimmune encephalitis cases. First reported in 2007, two young female patients (ages 15 and 19) with ovarian teratomas exhibited neuropsychiatric symptoms such as psychosis, seizures, autonomic instability, memory loss, dyskinesias, and speech disorders, all of which improved significantly after teratoma removal (Zhang et al., 2020; Lui et al., 2022). The average age of onset is 21 years, but cases have been reported in patients ranging from 8 months to 85 years. Early surgical excision of the teratoma and immunosuppression can lead to better outcomes and reduced relapse rates. Anti-NMDAR encephalitis is the most common cause of encephalitis in patients under 30 years, often misdiagnosed due to its varied clinical presentations. **THE CASE:** We present the case of a 56-year-old female with no medical history who was admitted to the emergency room on February 15, 2023, with dysphagia, anorexia, drowsiness, nausea, muscle weakness, altered mental state, confusion, and unresponsiveness. Initially diagnosed with anxiety and major depressive disorder with psychotic symptoms at Methodist Hospital in Houston, she was treated with multiple medications but showed no significant improvement. Her condition deteriorated, with worsening cognitive, psychiatric, and motor function. Upon transfer to Hospital Ginequito in Monterrey, Mexico, on March 26, 2023, further evaluation revealed cortical atrophy on MRI, macrocytic anemia, electrolyte imbalances, and primary

hypothyroidism. Despite treatment for suspected HSV-associated limbic encephalitis, her condition continued to decline, leading to generalized seizures. Anti-NMDA receptor encephalitis was diagnosed based on positive anti-NMDAR antibodies in serum and cerebrospinal fluid. An abdominopelvic CT scan identified a mature ovarian teratoma in the left ovary, measuring approximately 891 cc. Given the strong association between ovarian teratomas and anti-NMDA receptor encephalitis, she underwent a left salpingo-oophorectomy. Pathology confirmed a teratoma with a mural nodule containing osseous, neural, glial, and gastrointestinal tissue. Following immunotherapy with IV methylprednisolone and immunoglobulins, as well as the surgical removal of the teratoma, the patient showed significant clinical improvement. She regained mobility and cognitive function and was stable at the one-month follow-up. **CONCLUSION:** In the present case, a diagnosis of anti-NMDA receptor encephalitis was reported, after the presence of a mature ovarian teratoma containing neural tissue. This finding is uncommon in this pathology and has been proposed as the triggering factor for the reported encephalitis. Anti-NMDA receptor encephalitis involves various stages of the disease, which can potentially lead to death. Due to the broad spectrum of symptoms, it can mimic other psychiatric disorders, underscoring the importance of serological examination.

**Figure:** Abdominopelvic CT Scan Showing a Mature Ovarian Teratoma Associated with Anti-NMDAR Encephalitis.



**Legend** The image shows an oval, well-defined lesion with fat density, cystic components, and nodular calcification. It measures 150 x 76 x 147 mm, with a volume of 891 cc. There is slight peripheral enhancement post-contrast, and the lesion is near the left ovary, displacing adjacent structures.

**Key Words:** Benign tumors, ovarian teratoma, and anti-NMDA receptor encephalitis.

**04. ENHANCING MEDICAL EDUCATION: THE IMPACT OF DELIBERATE PRACTICE ON LEARNING HUMAN PHYSIOLOGY**

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=4617s>

**BACKGROUND:** Simulation-Based Learning (SBL) is a teaching method that remains underutilized at the undergraduate level of health education, despite several studies highlighting its potential. Active teaching methodologies, such as deliberate practice, are known to enhance skills like leadership, self-confidence, and teamwork, producing better results than traditional teaching strategies. The goal of this study was to determine the effectiveness of implementing deliberate practice in the teaching of Human Physiology in a medical course at a private school in Brazil.

**METHODS:** This is an observational qualitative and quantitative study, carried out in 2022 and 2023. An online questionnaire was developed for medical students in Belo Horizonte, Brazil, to assess their perception of deliberate practice in the aforementioned discipline. The calculated sample size was 196, and the study had 198 participants. The questionnaire was divided into five blocks: General Questions, Emotions, Skills, Debriefing and Personal Opinion. The fifth block consisted open-ended questions for students to identify aspects to be improved. The Likert scale was chosen as the evaluation method for the questions in the first four sections, with responses ranging from 1 to 5. An inferential statistical analysis was conducted, using Fisher's exact test at a 0.05 level of significance, to assess the association between categorical variables. To categorize these variables, responses from each section were summed according to their corresponding values on the Likert scale. For example, in the first section, titled General Questions, which included five statements about the students' learning experience, the scores were divided into three categories: 5-15, 16-20, and 21-25. **RESULTS:** Overall, students had a positive perception of deliberate practice. A significant proportion (66.8%) strongly agreed that they developed skills such as teamwork through the scenarios. Moreover, 83.7% completely agreed that access to realistic simulation environments enhanced their education and contributed to their learning of human physiology. 83.7% of participants completely agreed that the mistakes made during scenarios also contributed to their learning. Regarding emotions, 67.9% completely agreed that they felt motivated, while

37.8% experienced anxiety during the scenarios. The statistical analysis revealed a significant association between the sum scores of each section and the binary response ("yes" or "no") to the question "Do you like the practical classes of Human Physiology?" ( $p < 0.05$ ), with the exception of the Negative Emotions sum. This indicates that higher section scores are associated with a greater likelihood of students liking the practical classes. **CONCLUSION:** The implementation of deliberate practice into the Human Physiology curriculum demonstrated positive outcomes in terms of student perception and had a beneficial impact on students' learning and skill development. However, further improvements are needed to refine the scenarios and foster a safer emotional environment for undergraduate students.

**Table:** Association Between Students' Perception of Human Physiology Practical Classes and the Sum Score of the Questionnaire's Sections.

Characteristic	Overall N = 198 <sup>1</sup>	Do you like the practical classes of Human Physiology?		p-value <sup>2</sup>
		No N = 9 <sup>2</sup>	Yes N = 189 <sup>2</sup>	
<b>General Questions Sum</b>				<b>0.022</b>
5 - 15	5 (2.5%)	2 (22%)	3 (1.6%)	
16 - 20	27 (14%)	1 (11%)	26 (14%)	
21 - 25	166 (84%)	6 (67%)	160 (85%)	
<b>Skills Sum</b>				<b>&lt;0.001</b>
6 - 15	7 (3.5%)	3 (33%)	4 (2.1%)	
16 - 20	16 (8.1%)	3 (33%)	13 (6.9%)	
21 - 25	61 (31%)	2 (22%)	59 (31%)	
26 - 30	114 (58%)	1 (11%)	113 (60%)	
<b>Debriefing Sum</b>				<b>&lt;0.001</b>
5 - 15	4 (2.0%)	2 (22%)	2 (1.1%)	
16 - 20	23 (12%)	3 (33%)	20 (11%)	
21 - 25	171 (86%)	4 (44%)	167 (88%)	
<b>Positive Emotions Sum</b>				<b>&lt;0.001</b>
3 - 7	10 (5.1%)	3 (33%)	7 (3.7%)	
8 - 11	38 (19%)	5 (56%)	33 (17%)	
12 - 15	150 (76%)	1 (11%)	149 (79%)	
<b>Negative Emotions Sum</b>				<b>0.4</b>
3 - 7	40 (20%)	1 (11%)	39 (21%)	
8 - 11	73 (37%)	2 (22%)	71 (38%)	
12 - 15	85 (43%)	6 (67%)	79 (42%)	

<sup>1</sup>n (%)  
<sup>2</sup>Fisher's exact test

**Key Words:** Simulation; Medical Education; Physiology.

## 05. PENTALOGY OF CANTRELL: REPORT OF A UNIQUE PHENOTYPE

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<sup>1</sup> Universidad del Valle

 <https://www.youtube.com/live/fSpXH-3Xy5w?t=19394s>

**BACKGROUND:** Pentalogy of Cantrell (PC) is a rare congenital anomaly, characterized by the association of ectopia cordis, defects in the thoracoabdominal wall, diaphragm, sternum, pericardium and intrinsic cardiac anomalies. Embryologically, the alteration that causes PC takes place in the fourth week of human development, due to a failure in the processes involved in the formation of the thoracoabdominal wall. The etiology has not been elucidated, but it has been proposed that heterogeneous mechanisms are involved, with an important genetic component linked to the X chromosome.

**THE CASE:** We describe the case of a masculine patient product of a non-consanguineous marriage, born at 39 weeks of gestation. Her mother, a 15-year-old, gravida 1 patient, presented to the outpatient OB/GYN service of the Hospital Universitario del Valle in Cali, Colombia, at 37 weeks of gestation, she had no previous prenatal care due to her condition as a recent immigrant from Venezuela with low socioeconomic status, a through history and physical was performed reporting no abnormalities, she was immediately scheduled for a detailed anatomy ultrasound, it showed a fetus with thoracoabdominal ectopia cordis, suggesting PC as a diagnosis. A physician meeting between OBGYNs, pediatric surgeons, neonatologists and pediatric cardiologists was carried out, they opted for a C-section at 39 weeks with the possibility of surgical intervention after birth. After the C-section, the initial evaluation revealed dysmorphic features, a midline defect of the abdominal wall extending from the inferior portion of the sternum to the hypogastrium, with heart and bowel protrusion and absence of the muscle wall, remarkably, the protruded organs were completely covered by skin (Figure). APGAR scores were 7 at one minute and 6 at 5 minutes, due to irregular breathing and cyanosis, the patient was intubated and transferred to the NICU. The echocardiogram showed tetralogy of Fallot and partial diaphragm agenesis. He then was scheduled for a contrast enhanced CT in order to better detail the

anatomy with the goal of planning a corrective surgery, unfortunately, before the imaging was performed, and, after 8 days in critical condition in the NICU, the patient died. Multiple genetic, embryologic and environmental factors have been described to explain the etiology of this type of congenital anomalies, however it is yet to be established clearly. **CONCLUSION:** The aim of this study was to provide to the scientific literature the first case of Cantrell's Pentalogy with the described unique phenotype (ectopia cordis, large thoracoabdominal wall defect with evisceration and complete skin coverage, and Tetralogy of Fallot), highlighting the importance of an early prenatal diagnosis, the role of social determinants of health in maternal care, and the involvement of a multidisciplinary team, in order to build rapport with patients, regarding follow-up, genetic and reproductive counseling in challenging scenarios.

**Figure:** Newborn with Pentalogy of Cantrell: Dysmorphic Features, Thoracoabdominal Wall Defect, and Skin-Covered Evisceration.



**Key Words:** Pentalogy of Cantrell, Ectopia Cordis, Congenital Abnormalities.

**06. COMPARATIVE EFFICACY OF INTRAVITREAL AFLIBERCEPT AND DEXAMETHASONE IMPLANT IN TREATING MACULAR EDEMA ASSOCIATED WITH DIABETIC RETINOPATHY OR RETINAL VEIN OCCLUSION: A META-ANALYSIS AND SYSTEMATIC REVIEW (2836)**

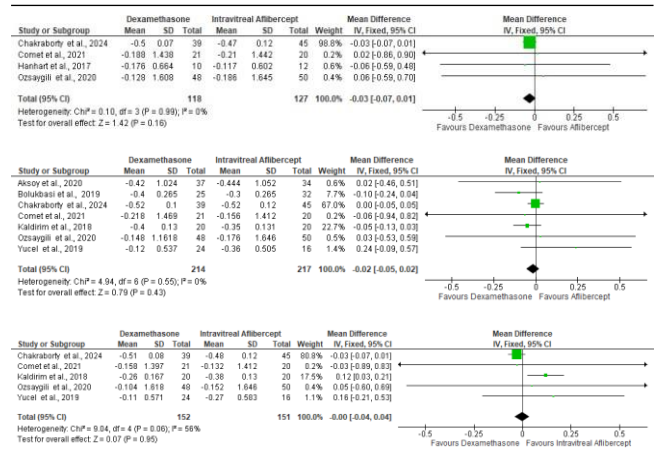
Khaled Moghib<sup>1</sup>, Yumna Mahmoud<sup>1</sup>, Ayman Hassan<sup>1</sup>, Ammar Salah<sup>2</sup>

1. Fourth-year medical student, Cairo University/ Kasralainy Medical School, Cairo, Egypt
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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=6495s>

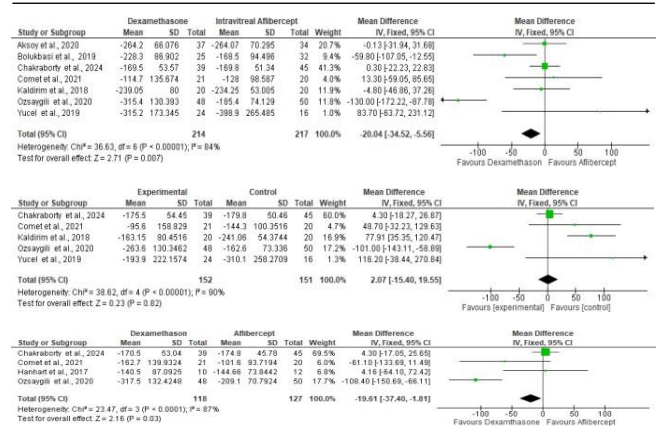
**BACKGROUND:** Diabetic retinopathy (DR) and retinal vein occlusion (RVO) are common retinal vascular diseases that can lead to visual impairment. Macular edema is a serious complication of both DR and RVO. Anti-VEGF agents like aflibercept and corticosteroids like dexamethasone implant are treatments for ME. We aim to evaluate the comparative efficacy and safety of these two treatments for ME associated with DR or RVO. **METHOD:** The databases used in the study for a literature search include PubMed, Embase and Cochrane Central Register of Controlled Trials searched from inception till August 1, 2024. The aim was to include trials which addressed the efficacy and safety of treatments for macular edema. Data extraction was performed on key outcome variables which included the BCVA, CRT, the number of injections given and the SAE's. The obtained data was subsequently analyzed qualitatively and quantitatively based on the RevMan 5 software program. 3 software for meta-analysis of the included studies. **RESULTS:** We included a total 8 of studies comprising 453 eyes. The underlying causes of macular edema in the included studies were RVO and DR. When comparing the dexamethasone implant group to the aflibercept treatment group, there was no statistically significant difference in BCVA at the 3M (MD: -0.00, 95% CI: -0.04,0.04; P=0.95),6M (MD: -0.02, 95% CI: -0.05, 0.02; P=0.43) and 12M (MD: -0.03, 95% CI: -0.07, 0.01; P=0.16). In terms of central retinal thickness reduction, there was a significant difference between the two groups at 3M (MD: -20.04, 95% CI: -34.52,-5.56; P=0.007), and 12M (MD:19.61, 95% CI: -37.4, -1.81; P=0.03), however, there was no significant result in 6M (MD: 2.07, 95% CI: - 15.4, 19.55; P=0.82). **CONCLUSION:** The meta-analysis revealed that the aflibercept intravitreal injection and dexamethasone implant both significant in improving BCVA and decreasing the CRT of patients with DR and ME. In the initial 3 months of therapy as well as fixed-dose 12 months of therapy, dexamethasone implant was found to provide better vision and reduced CRT than aflibercept. Nevertheless, the dexamethasone implant needed less injection but increased the incidence of elevated intraocular pressure and cataract formation.

**Figure 1:** Differences in BCVA (logMAR) Changes Between Aflibercept and Dexamethasone Implant Treatment at (A) 3 Months, (B) 6 Months, and (C) 12 Months.



**Legend:** BCVA: Best-corrected visual acuity; logMAR: Logarithm of the minimum angle of resolution; SD: Standard deviation; CI: Confidence interval.

**Figure 2.** Differences in CRT Changes Between Aflibercept and Dexamethasone Treatment at (A) 3 Months, (B) 6 Months, and (C) 12 Months.



**Legend:** CRT: Central retinal thickness; SD: Standard deviation; CI: Confidence interval.

**Key Words:** Meta-analysis, Diabetic retinopathy, Macular edema, Dexamethasone, Aflibercept, Best-corrected visual acuity, Central retinal thickness.



## 07. FREQUENCY RHYTHMIC ELECTRICAL MODULATED SYSTEM (FREMS) AND ITS EFFECT ON THE TREATMENT OF PAINFUL DIABETIC PERIPHERAL NEUROPATHY: A SYSTEMATIC REVIEW AND META-ANALYSIS

Khaled Moghib<sup>1</sup>, Ayman Hassan<sup>1</sup>, Yumna Mahmoud<sup>1</sup>

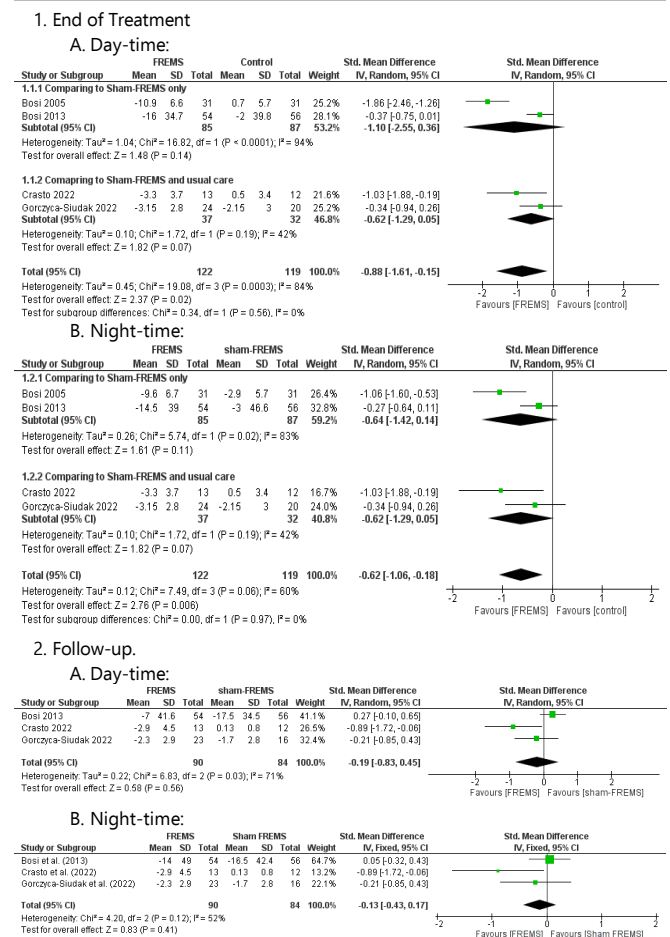
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**BACKGROUND:** Frequency Rhythmic Electrical Modulated System (FREMS) is an innovative method of transcutaneous non-invasive treatment for neuropathic pain in diabetes mellitus. This study aims to synthesize evidence from published clinical trials on the efficacy and safety of FREMS administration in patients with painful peripheral diabetic neuropathy compared to placebo (sham FREMS) or standard of care. **METHODS:** This systematic review and meta-analysis were conducted following the PRISMA statement guidelines, we searched PubMed, Cochrane Central, Scopus, and Web of Science databases throughout February 2023. Then, we screened the articles for eligibility, extracted the relevant data, and assessed the risk of bias using the Cochrane Collaboration tool. The primary outcome measured was the effect of Frequency Rhythmic Electrical Modulated System (FREMS) on pain perception assessed by Visual analogue scale [VAS] or other pain scores, extracted data from relevant RCTs were analyzed using RevMan software version 5.4.1 for Windows. All steps of this study were prespecified, and the protocol was registered on PROSPERO (CRD42023400884). **RESULTS:** Four RCTs with 210 patients were eligible for the final analysis. For the primary outcome included in the meta-analysis, the mean difference (MD) of change in the (VAS) from baseline to endpoint favoured FREMS over sham-FREMS (comparison with day-time: SMD = -0.45, 95% CI [-0.77 to -0.14], P=0.005; comparison with night-time SMD = -0.41, 95% CI [-0.78 to -0.04], P= 0.03 using a random effect model for both. The efficacy of FREMS decreased gradually, and its statistical significance was lost after the follow-up period (comparison with day-time SMD=0.11, 95% CI [-0.34 to 0.55], P=0.64 using a random effect model; comparison with night-time SMD = -0.13, 95% CI [-0.43 to 0.17], P=0.41 using a fixed effect model. For the secondary outcomes in the systematic review, studies showed no statistically significant difference in Quality of life questionnaires and sensory nerve conduction velocity. Studies on motor nerve conduction velocity, tactile, vibration, and thermal sensation showed conflicting results. All studies reported no major adverse events. **CONCLUSION:** FREMS may offer a drug-free and non-invasive alternative or adjunct modality in pain of peripheral diabetic neuropathy

management in patients who do not respond well to treatment or those who cannot tolerate side effects of the usual medications because few side effects were reported after FREMS usage, which in turn makes it safe and well tolerated. In addition to its pivotal role in pain reduction, FREMS may also help in improving sensory functions and NCV in DPN patients. So FREMS should be considered and incorporated into clinical guidelines if further studies continue to support its efficacy and safety.

**Figure:** Forest Plots of Standardized Mean Difference in VAS Score Changes Comparing FREMS and Control at (1) End of Treatment and (2) Follow-Up: Subgroup Analysis by A. Day-Time and B. Night-Time.



**Key Words:** Diabetic peripheral neuropathy, Diabetes Mellitus, Frequency Rhythmic Electrical Modulated System.

## 08. CHALLENGES AND LIMITATIONS AMONG FOREIGN MEDICAL UNDERGRADUATES INTERESTED IN RESEARCH STUDY: A CROSS-SECTIONAL STUDY

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=5379s>

**BACKGROUND:** Medical research holds immense significance in medicine as it propels progress, elevates patient care, and deepens our comprehension of diseases and therapies. We aimed to examine the barriers, and challenges that limit foreign medical undergraduates in conducting research studies. **METHODS:** In this cross-sectional study, 641 students from more than six Universities in Georgia participated, and the response rate was 53%. The study received ethical approval before data collection. It was conducted from 10th to 16th February 2024 in Tbilisi and Batumi City. Students were approached during classes by the research representatives to complete the questionnaire. The structured questionnaire contained demographic characteristics, attitudes, and perceived barriers to

participation in research. Descriptive analysis, such as the frequency distribution and independent t-test, was performed using Statistical Package for Social Sciences (SPSS) version 23.0 software (SPSS Inc., Chicago IL, USA). **RESULTS:** The University of Georgia had the highest participants of 41.5%, followed by Batumi State University (31.7%). 56.8% of female students completed the study with a mean age of 22.19. 86.1% of students were medical students, and 17.2% were in their final year of medical school. 89.9% of students were international students from different countries across the globe. Most students "agreed" that the challenges influencing their research interest were lack of motivation and guidance (48.8%), time constraints (48.7%), lack of familiarity with research proposal (48.7%), skills, and statistical analysis (49%). Most of the male students reported that lack of access to research papers, databases, and research funding limits their interest and participation in research, which were statistically significant ( $p < 0.05$ ). **CONCLUSION:** Our study reported significant barriers and limitations encountered by international students interested in research studies. Most participants require research training and mentoring to obtain the essential skills. Research clubs and organizations are encouraged among students to help optimize the opportunities for participation in grants and projects funded by different organizations.

**Key Words:** Activity, Research, Medicine, Students.

## 09. TO TEST OR NOT TO TEST? HOW A POSITIVE RAPID STREP TEST MAY PERPLEX THE DIAGNOSIS OF SERUM SICKNESS LIKE REACTION

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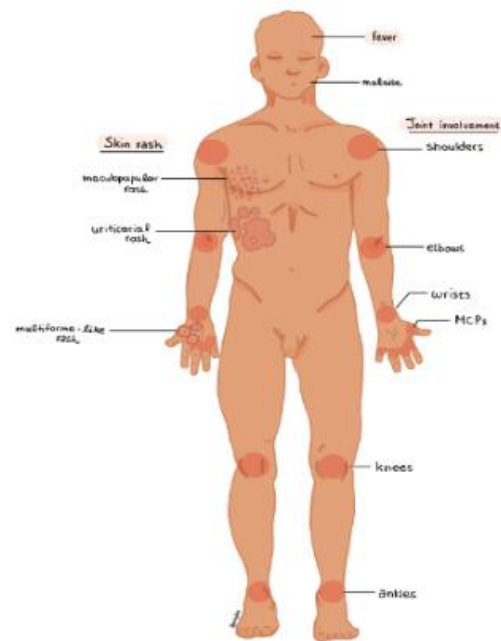
<https://www.youtube.com/live/fSpXH3Xy5w?t=16264s>

**BACKGROUND:** Serum sickness-like reaction (SSLR) represents a rare immunologic disorder. The original version is the serum sickness (SS), a type III hypersensitivity reaction caused by large protein molecules such as diphtheria antitoxin. However, SSLR is a delayed reaction of unknown etiology, triggered by small non-protein molecules. The clinical presentation of SSLR includes the classic triad of fever, rash, and arthralgia, which typically occurs 1-2 weeks after the exposure to drugs (especially  $\beta$ -lactams, e.g., amoxicillin and cefaclor) and infectious agents (especially viruses and Streptococcus). Some patients also present with angioedema or lymphadenopathy. The prognosis is excellent, but rare complications of liver involvement, renal involvement, coagulopathy, and pneumonitis have been reported. It is a challenging diagnosis because it mimics sepsis and other exanthematous diseases. Pharyngitis is an upper respiratory tract infection that is usually caused by viruses, but the most common bacterial cause is *Streptococcus pyogenes*. The Rapid Strep Test (RST) is a useful diagnostic test for detecting *Streptococcus pyogenes* in patients with pharyngitis and a Centor score of 3 or more guiding the administration of antibiotics. **THE CASE:** We report a case of a 63-year-old female patient seen in the emergency department (ED) with diffuse rash, musculoskeletal pain, high-grade fever with rigors, malaise, and a positive RST in the absence of clinical signs of pharyngitis. The rash was neither painful nor pruritic and was diffusely spread, sparing the face, the palms, and the soles, with a maculopapular pattern and occasional urticarial-like plaques (Figure 1). Her past medical history was positive for a recent (12 days before) respiratory tract infection, which was treated with amoxicillin/clavulanate, acetaminophen, and ibuprofen. The patient was admitted to the hospital and she was initially treated with clindamycin, given the initial clinical suspicion of streptococcal sepsis, but it was discontinued due to diarrhea. After an extensive diagnostic workup of the patient and the exclusion of other common diseases, her final diagnosis was SSLR. The most likely trigger was amoxicillin, although clavulanate, acetaminophen, and ibuprofen have also been reported as causes of SSLR. Methylprednisolone 0.5 mg/kg per os was administered, resulting in the resolution of symptoms after 2 days, while the dose was gradually tapered over one week. **CONCLUSION:** SSLR is an interesting clinical entity, and its pathogenesis is poorly understood. The clinical presentation can be variable. SSLR is a clinical diagnosis of exclusion due to the absence of confirmatory testing. Physicians should be familiar with this benign condition to avoid unnecessary diagnostic testing such as RST which may misguide diagnosis and lead to unnecessary diagnostic testing, hospitalization, and antibiotic treatment.

**Figure 1:** Diffuse Maculopapular Rash with Occasional Urticarial-Like Plaques Observed on the (A) Arms and (B) Legs in a Case of Serum Sickness-Like Reaction.



**Figure 2:** Clinical Manifestations of Serum Sickness-Like Reaction (SSLR)




**Legend:** Illustration of the clinical presentation of serum sickness-like reaction (SSLR), highlighting the classic triad of fever, rash, and arthralgia or arthritis. Key affected areas include the trunk, shoulders, knees, and elbows, with rash distribution often appearing in these regions.

**Key Words:** Serum Sickness; Exanthema; Drug Eruption; Amoxicillin; *Streptococcus pyogenes*.

**10. PERCEPTIONS AND EXPECTATIONS OF FIRST-YEAR MEDICAL STUDENTS AT THE BEGINNING OF THEIR STUDIES FOR THEIR COURSE IN THE FIELD OF MEDICINE**

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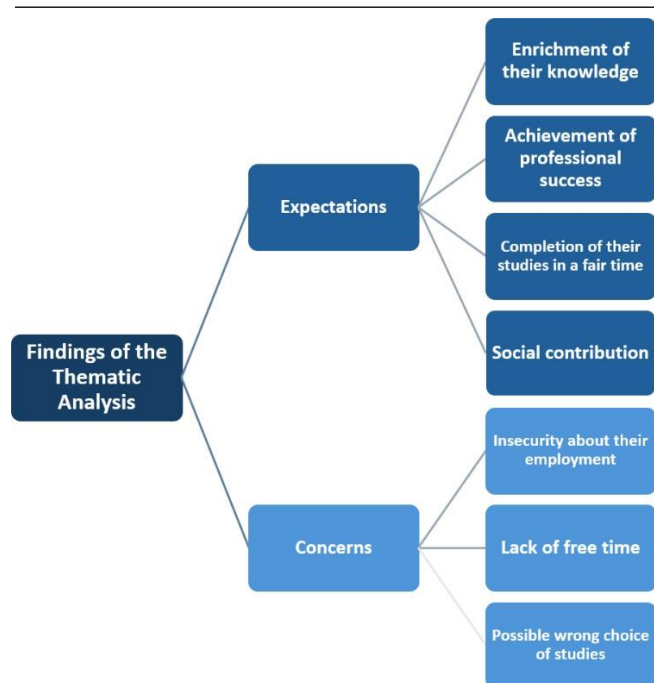
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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=9368s>

**BACKGROUND:** Studies conducted on first-year medical students around the world show that the common axis of their concerns is both finding the balance between workload and personal life, as well as the need to develop soft skills to interact with patients. This study explores the perceptions and expectations of first-year students at the School of Medicine of the Aristotle University of Thessaloniki regarding the course of their studies and their future careers at the beginning of their studies. **METHODS:** This is a cross-sectional study. The data was collected through an anonymous online questionnaire and completed by first-year students during their first lecture in October 2023. Descriptive statistical methods were used to analyze qualitative and quantitative variables. Braun and Clarke's method was used for the thematic analysis of the open questions by two independent researchers. **RESULTS:** The questionnaire was answered by 157 people out of the 233 people who participated in the (response rate: 67.4%). The 51.6% of the participants were men. The School of Medicine of the Aristotle University of Thessaloniki was the first choice for 126 (80.3%) students. The majority of students reported that they are quite confident in choosing medicine for their studies and career [median:9, interquartile range (IQR) 2], while a significant percentage of students consider it likely to practice medicine abroad (median: 6, IQR: 3). Their expectations include enrichment of their knowledge, achievement of professional success, completion of their studies in a fair time, while some students prioritize social contribution as the major aim of their career. The main concerns included insecurity about their employment, lack of free time, and possible wrong choice of studies.

time, possible wrong choice of studies, and fear of long-term commitment to medicine. In addition, 41 (26.1%) participants consider it likely to work in primary healthcare units after their studies. **CONCLUSION:** The majority of students feel confident in choosing medicine as a profession. Resolution of their fears and concerns through close communication between students and teaching staff is considered necessary.

**Figure:** Expectations and Concerns of First-Year Medical Students at Aristotle University of Thessaloniki Based on Thematic Analysis.



**Key Words:** Attitude, Career Choice, Medical Education, Perception, Primary Care.


## 11. AORTIC ANEURYSM INFLAMMATORY CELL DETECTION WITH DEEP LEARNING METHODS

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=16878s>

**INTRODUCTION:** In digital pathology, neural networks such as the Multilayer Perceptron (MLP) and Residual Neural Network (ResNet) are becoming increasingly prevalent for the analysis of tissue structure. However, their application remains constrained. MLP networks connect layers sequentially, whereas ResNet introduces blocks that span across layers, thereby enabling faster learning and rendering it suitable for complex tasks. In the context of aortic aneurysm progression, the number and location of acute and chronic inflammatory cells are of critical importance, as these cells and the enzymes they release have the potential to weaken the vascular wall and promote aneurysm growth. This highlights the necessity for a more detailed study of vascular inflammation through digital image analysis, given that the current pathology literature offers limited insights into this area. **OBJECTIVE:** Our objective was to determine the number of inflammatory cells in the aortic wall using MLP and ResNet50 methods and to compare these results with data obtained from traditional immunohistochemical methods. **MATERIALS AND METHODS:** We selected a total of 13 digitalized hematoxylin-eosin stained histological sections of aortic aneurysm surgical samples from the archives of the Department of Pathology and Experimental Cancer

Research at Semmelweis University from the years 2023-2024. Automated nucleus recognition was performed on 10 slides using the Biological Image Analysis program (BIAS, Single-Cell Technologies Ltd., Szeged, Hungary), and a training image database containing 10,781 elements was created. The cells were classified into 5 categories. In the remaining 3 cases, the proportions of neutrophil and plasma cells were calculated relative to the number of identified nuclei using MLP and ResNet methods. Immunohistochemical labeling was performed using the CD138 antibody for plasma cells and Myeloperoxidase labeling for neutrophil granulocytes. The number of labeled cells was determined using the 3DHistech (Budapest, Hungary) Quantcenter Nuclearquant module. Finally, the cell type ratios determined by Quantcenter were compared with those determined by MLP and ResNet50. The ANOVA method was used for statistical analysis. **RESULTS:** The average proportion of plasma cells was 17.17% (n=3, SD= ± 11.56%) according to the MLP method, 13.54% (n=3, SD= ± 9.54%) according to the ResNet method, and 8.09% (n=3, SD= ± 5.08%) according to immunohistochemistry. There was no significant difference between the methods. The average proportion of neutrophils was 7.97% (n=3, SD= ± 1.64%) according to the MLP method, 6.53% (n=3, SD= ± 1.7%) according to the ResNet method, and 5.02% (n=3, SD= ± 2.02%) according to immunohistochemistry. There was no significant difference between the methods. **CONCLUSIONS:** In the histological sections of aortic aneurysms we examined, the cell recognition method performed using MLP and ResNet50 produced similar results to the IH method in identifying neutrophils and plasma cells. Based on these findings, digital image analysis may be suitable for the accurate recognition of cells with characteristic structures visible in HE-stained sections.


**Key Words:** Aortic Aneurysm, Image Analysis, Vascular Wall Inflammation, Cell Recognition, Deep Learning.

## 12. A CROSS-SECTIONAL STUDY OF HYPERTENSION AND ASSOCIATED FACTORS IN YOUNG MBBS STUDENTS AT A TERTIARY CARE INSTITUTE

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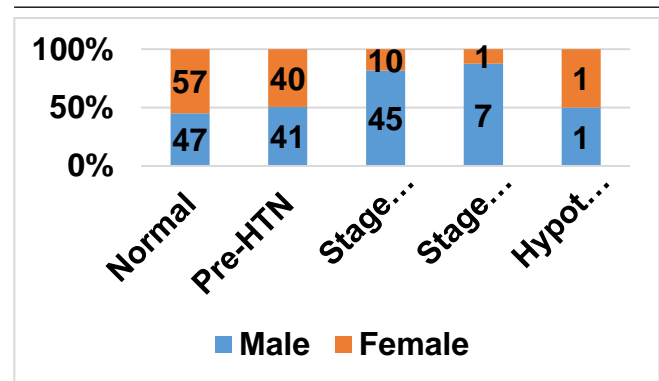
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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=5860s>

**BACKGROUND:** Hypertension is increasingly prevalent among young adults, including MBBS students, who are often unaware of their condition. The silent progression of hypertension is a critical issue due to its association with cardiovascular diseases. There is a scarcity of research focusing on the prevalence and risk factors of hypertension among young MBBS students in India. This study aims to evaluate the prevalence of hypertension and its related factors among MBBS students at a tertiary care institution in Mumbai, India. **METHODS:** A cross-sectional study was conducted among 250 MBBS students aged 18 to 24, selected based on predefined eligibility criteria. Blood pressure was measured using the standard auscultatory method following a 10-minute rest period. Hypertension classification was done as per JNC-VII guidelines. Various associated risk factors, including lifestyle and family history, were documented in case study forms. Statistical analysis was performed to explore correlations between these factors and hypertension. **RESULTS:** The study identified substantial rates of pre-hypertension (32.40%) and hypertension (25.20%) among the participants, with 22% classified as Stage I and 3.20% as Stage II hypertensive, as

illustrated in the **Figure**. Alarming, 53.60% of those with hypertension were unaware of their condition. Significant risk factors included alcohol/tobacco use (34.40%), abdominal obesity (47.60%), family history (46.80%), and unhealthy lifestyle practices. Statistically significant associations were observed between pulse rate (p-value = 0.012), waist-to-hip ratio (p-value = 0.019), alcohol or tobacco consumption (p-value < 0.0001), and hypertension. **CONCLUSION:** The study underscore the high prevalence of pre-hypertension and hypertension among young MBBS students in Mumbai, highlighting the urgent need for early detection and preventive measures. Regular monitoring of blood pressure and increased awareness about hypertension are essential to mitigate the long-term cardiovascular risks in this population.

**Figure.** Sex-wise Distribution of Average Basal Blood Pressure.



**Key Words:** Hypertension, Blood Pressure, Young Adults, Medical Students, Risk Factors.

### 13. IDENTIFYING KEY RISK FACTORS FOR INCISIONAL HERNIA POST-EMERGENCY LAPAROTOMY: INSIGHTS FROM A CASE-CONTROL STUDY FROM A TERTIARY REFERRAL CENTER OF EASTERN INDIA

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=9653s>

**BACKGROUND:** Incisional hernias (IH) are gaps around postoperative scars, detectable by examination or imaging, with variable incidence. Despite surgical advancements, IH remains a significant complication, causing morbidity, impacting patient quality of life, and increasing healthcare costs. Identifying risk factors is essential for effective prevention and management. **METHODS:** This case-control study, conducted in the Department of General Surgery at a tertiary medical institute, included patients who underwent emergency laparotomy between 2019 and 2021. Those developing IH served as cases, and those not developing it as controls. Data on demographics, risk factors, and variables were collected and analyzed using SPSS V24, with significance set at  $p \leq 0.05$ . **RESULTS:** Among 367 emergency laparotomies performed, 54 developed IH (incidence: 14.7%). Significant risk factors identified included obesity ( $p < 0.000$ ), smoking ( $p = 0.036$ ), COPD ( $p < 0.001$ ), diabetes mellitus ( $p = 0.003$ ), low hemoglobin ( $p = 0.023$ ), high total leukocyte count ( $p = 0.001$ ), low total protein ( $p = 0.015$ ), low albumin ( $p = 0.002$ ), and high creatinine ( $p = 0.001$ ). Operation-related factors such as increased operation time ( $p = 0.001$ ), increased blood loss ( $p = 0.025$ ), intraoperative blood transfusion ( $p = 0.039$ ), and peritoneal contamination ( $p = 0.030$ ) were significant. Mass closure of the abdomen significantly reduced the risk of IH ( $p = 0.018$ ). Postoperative factors like surgical site infection ( $p < 0.001$ ), wound dehiscence ( $p = 0.001$ ), postoperative straining ( $p = 0.001$ ), and prolonged hospital stay ( $p = 0.000$ ) were also significantly associated. **DISCUSSION:** The study underscores the multifactorial nature of IH development post-emergency laparotomy, identifying significant preoperative, intraoperative, and postoperative risk factors. The findings suggest that managing comorbidities, optimizing nutritional and inflammatory status, and implementing effective surgical and postoperative strategies are crucial in reducing IH incidence.

**Table:** Key Risk Factors for Incisional Hernia Following Emergency Laparotomy: Results from a Case-Control Study in a Tertiary Referral Center in Eastern India.

Parameters	Case (n=35)	Control (n=35)	p value	OR (95%CI)
Gender				
Male	10	15	0.21	
Female	25	20		
Age (years)	46.91±13.62	43.06±13.53	0.24	
Occupation				
Heavy	18	10	0.05	2.65 (0.98-7.11)
Light	17	25		
BMI (kg/m <sup>2</sup> )	26.18±2.64	23.87±2.08	0	3.63 (1.20-10.94)
Comorbidities/History				
Smoker	15	6	0.36	
Diabetes mellitus	19	7	0	4.75 (1.64-13.74)
Hypertension	6	5	0.74	
Chronic lung disease	16	3	0	8.98 (2.31-34.91)
Immunosuppression	9	3	0.06	
Preoperative blood parameters				
Hb (g/dl)	10.59±1.67	11.47±1.51	0.02	
TLC (wbc/mm <sup>3</sup> )	11038.86±3569.77	8055.14±1779.59	0	
T protein (g/dl)	7.35±0.65	7.67±0.37	0.02	
Albumin (g/dl)	3.39±0.40	3.67±0.35	0	
T bilirubin (mg/dl)	0.69±0.55	0.72±0.35	0.82	
Creatinine (mg/dl)	1.54±0.76	1.02±0.45	0	
Interval between laparotomy to hernia (months)	10.6±4.6			
Type of incision				
Midline complete	17	9	0.11	
Upper midline	3	7		
Lower midline	8	5		
Mc Burney's	5	12		
Rutherford Morrison	2	2		
Duration of operation (hrs)	133.86±39.96	95.71±27.76	<0.001	
Estimated blood loss (ml)	101.43±73.25	60±78.40	0.03	
Units of PRBC transfusion	1			
Fecal contamination of wound	20	11	0.03	2.91 (1.09-7.74)
Thorough peritoneal lavage given	26	17	0.03	3.06 (1.12-8.37)
Closure technique				
Layered closure	25	15	0.02	3.33 (1.24-9.00)
Mass closure	10	20		
Suture used for closure				
Loop PDS	19	13	0.17	
PDS No.	9	8		
Vicryl No.	7	14		
Surgical site infection	20	4	<0.001	10.33 (2.99-35.63)
Wound dehiscence	22	2	<0.001	27.92 (5.73-136.03)
Post operative straining	19	5	<0.001	7.13 (2.24-22.66)
Duration of hospital stay (days)	11.94±6.25	6.43±2.58	<0.001	

**Key Words:** Incisional hernia, Risk factors, Emergency laparotomy, Tertiary referral center.

**14. PREVALENCE OF DIABETES MELLITUS AND ITS ASSOCIATED FACTORS AMONG TUBERCULOSIS CASES IN TALUK TUBERCULOSIS UNIT, INDIA - A HOSPITAL-BASED : EXPLORATORY CROSS-SECTIONAL STUDY**

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=2593s>

**BACKGROUND:** As per WHO global reports, one in each third person of the current world population is infected with tuberculosis, asymptotically. NTEP data states that 25,52,000 Tuberculosis cases were reported in 2023. Out of total, 81,331 cases were notified from the state of Karnataka. Whereas 9.3% of the Indian population are known cases of diabetes mellitus. Both the diseases behave as a duplex, interacting with each other. Diabetes mellitus weakens cell mediated immunity by dysfunctioning T-cells as well as macrophages. On the other hand, tuberculosis-like chronic morbidities are associated with reactionary hyperglycemia due to accelerated counter-regulatory stress hormones productions. Amalgamation of epidemics of a communicable and non-communicable disease is turning out to be a matter of concern for all. Hence, such exploratory study becomes crucial to determine the severity. **METHODS:** This exploratory cross-sectional study includes Tuberculosis diagnosed cases visiting hospital amalgamated to medical college in North Karnataka, India belonging to Taluk TB Unit. Sample size for proportion was calculated to be 116, to cover desired objectives at 5% absolute precision at 95% confidence level. Written Informed consent was obtained from the study cases. All those cases who were seriously ill or were pregnant or denying the consent were excluded. Predesigned and pretested proforma were used for obtaining socio-demographic details of subjects. Modified BG Prasad classification was implicated to classify socioeconomic-status. Patients were confirmed diagnosed with tuberculosis by the latest CBNAAT report. Using WHO criteria, cases were classified into non-diabetic, prediabetic and diabetic on the basis of post-prandial blood sugar using Oral Glucose Tolerance Test. **RESULTS:** As per the study, 63.3% of tuberculosis cases were sputum positive and non-diabetic, whereas 9.2% were sputum positive and diabetic. Among sputum negative cases, 15% were non-diabetic and 3.3% diabetic. In the pulmonary tuberculosis category, 75.8% were non-diabetic and 10.8% were diabetic; in extra-pulmonary category, 2.5% were non-diabetic and 1.6% were diabetic. In aspects of socioeconomic-status, among non-diabetic, 30.8% were belonging to Class I & 5% to Class V; among prediabetic cases, 4.2% belonged to Class V and 0.8% to Class I; whereas 10% from Class V and 0.8% from Class III compromised diabetic population. Using BMI as criteria, 50.8% among non-diabetic,

1.6% among diabetic were underweight; whereas normal BMI, 25.8% were non-diabetic and 4.2% were diabetic; while among overweight, 6.7% were diabetic and 0.8% were prediabetic. Eventually, 12.5% of studied tuberculosis cases were diabetic, 9.2% were prediabetic and 78.3% were non-diabetic. **CONCLUSION:** At the end of the study, it was found that the prevalence of diabetes among studied tuberculosis cases was 12.5%, against the national prevalence (7.7%) as per latest NTEP reports. Moreover, among diabetic tuberculosis cases the majority were: sputum positive (9.2%), pulmonary tuberculosis (10.8%), belonged to Class V (10.0%) of socioeconomic-status, and overweight (6.7%). Consequently, tuberculosis has been found significantly related to diabetes mellitus and its associated factors, as depicted by the study's result.

**Table:** Distribution of Studied Tuberculosis Cases According to Diabetic Status and Other Associated Factors.

Characteristic	Non-diabetic	Prediabetic	Diabetic
<b>Sputum</b>			
Positive	76 (63.3%)	9 (7.5%)	11 (9.2%)
Negative	18 (15.0%)	2 (1.6%)	4 (3.3%)
<b>Site</b>			
Pulmonary	91 (75.8%)	10 (8.3%)	13 (10.8%)
Extrapulmonary	3 (2.5%)	1 (0.8%)	2 (1.6%)
<b>Socioeconomic status modified (bg prasad classification 2024)</b>			
Class I	37 (30.8%)	0	0
Class II	26 (21.7%)	1 (0.8%)	0
Class III	14 (11.7%)	2 (1.6%)	1 (0.8%)
Class IV	11 (9.2%)		
Class V	6 (5.0%)	5 (4.2%)	12 (10.0%)
<b>Nutritional status</b>			
Underweight	61 (50.8%)	4 (3.3%)	2 (1.6%)
Normal	31 (25.8%)	3 (2.5%)	2 (1.6%)
Overweight	2 (1.6%)	1 (0.8%)	8 (6.7%)
<b>Total</b>	<b>94 (78.3%)</b>	<b>11 (9.2%)</b>	<b>15 (12.5%)</b>

**Key Words:** Tuberculosis, Diabetes Mellitus, Prevalence.




### 15. EFFICACY OF INTRANASAL FLUTICASONE NASAL SPRAY ALONE VERSUS INTRANASAL FLUTICASONE COMBINED WITH ORAL MONTELUKAST AND LEVOCETIRIZINE IN TREATMENT OF ALLERGIC RHINITIS—A RANDOMIZED CONTROL TRIAL

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=11885s>

**BACKGROUND:** Allergic Rhinitis (AR) is characterized by an immunological response facilitated by IgE antibodies inside the nasal mucosa, which is initiated upon exposure to allergens present in the air. The illness under consideration is characterized by symptoms including the presence of watery nasal discharge, nasal congestion, sneezing, and nasal itching. It affects between 10 and 40 per cent of the global population, which affecting the quality of life of many persons. Hence, the requirement of a treatment targeted at delivering maximum symptom control and has minimum to nil adverse effects. AR symptoms impair cognitive function, which can be further exacerbated by the use of widely available first-generation antihistamines. **OBJECTIVES:** To assess the improvement of nasal symptoms in both Fluticasone alone group and Fluticasone with Montelukast and levocetirizine group at the end of 1st month and 2nd month. **METHODS:** Ethical approval was obtained from the Institutional Ethics Committee (IEC). A Randomized control study was done on 40 patients, aged above 15years who had Allergic rhinitis. Sample size estimation was done using OpenEpiSoftwareVersion2.3.1. Diagnosis was made based on Allergic Rhinitis and its Impact on Asthma (ARIA) criteria. Patients were randomized by simple randomization into two groups of 20 each. After proper history and physical examination of both nostril along with Absolute Eosinophil count was done. Group 1 received 2 puffs of Fluticasone furoate nasal spray (27.5mcg) in each nostril twice daily for 1 month, whereas Group 2 received both Fluticasone furoate nasal spray twice daily with oral montelukast and levocetirizine for 1 month. Patients were assessed by Daily Rhinitis Diary Card. The symptoms

were assessed during treatment, post treatment at 1<sup>st</sup> month and 2<sup>nd</sup> month. Statistical analysis was done using SPSS 19 software and appropriate statistical tests were applied. Inclusion Criteria: Patients aged between 18-60 years of age with Allergic rhinitis symptoms. Exclusion Criteria: Smokers, patients on oral steroids, patients with recent nasal surgeries, patients with nasal polyposis. **RESULTS:** In this study, the results showed significant improvement in Day time symptom scores for both group after 1 month. Better symptom relief seen in fluticasone with montelukast group. The combination group showed better symptom free interval after stopping the treatment. In case of night time symptom score, there were difference but it was found to be statistically insignificant ( $p > 0.001$ ). **CONCLUSION:** As per the study, Fluticasone combined with montelukast and levocetirizine was effective in reducing daytime and night time symptoms as compared to fluticasone alone. **Table.** Day and night symptoms of G1 and G2: M from table 1 shows that, significance of Day and Night symptoms of G1 & G2 during Pre-treatment, The mean scores of G1 and G2 in day symptoms were  $7.05 \pm 1.36$ ;  $7.30 \pm 1.22$  (F critical value 4.26,  $p < 0.01$ ). In case of night time symptoms, the mean of G1 was  $1.35 \pm 0.11$  and G2 was  $1.47 \pm 0.87$ . Hypothetically tested by ANOVA it was found to be statistically insignificant.

**Table:** Daytime and Nighttime Symptom Scores for G1 (Fluticasone Alone) and G2 (Fluticasone with Montelukast and Levocetirizine) During Pre-Treatment and Follow-Up.

Pre treatment follow up	Day symptoms			Night symptoms		
	Mean±SD	ANOVA F- critical Value	P-value	Mean±SD	ANOVA F- critical Value	P-value
G1	7.05±1.36	4.26**	<0.001	1.35±0.11	1.87 <sup>ns</sup>	>0.01 <sup>ns</sup>
G2	7.30±1.22			1.47±0.87		

**Legend:** \*\*, significant at 1% level ( $p < 0.01$ ), ns –non-significant.

**Key Words:** Rhinitis, Allergic, Fluticasone, Montelukast.

## 16. ACUTE KIDNEY INJURY TRIGGERED BY MANNITOL IN A PATIENT WITH NEOVASCULAR GLAUCOMA: A CASE REPORT

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**BACKGROUND:** Mannitol is commonly used to reduce intracranial and intraocular pressure as a treatment or preoperative measure in brain and eye surgeries by causing osmotic diuresis. Although the side effects of mannitol are minimal, in certain groups of patients with renal disease, it can cause serious complications. Here, we report a rare instance where a patient experienced severe electrolyte derangements due to the administration of mannitol before undergoing an ocular procedure. **THE CASE:** A 62-year-old male patient presented to the ophthalmology outpatient clinic with decreased vision and pain. He had a past medical history of type 2 diabetes, poorly managed with insulin and oral anti-diabetic drugs. Further investigation revealed neovascular glaucoma attributed to proliferative diabetic retinopathy. He was scheduled for trabeculectomy along with an anti-VEGF injection and was admitted to the hospital. He was given 350 ml of intravenous mannitol twice daily for three days before surgery. On the third day of admission, he complained of a cough. Subsequently, he developed worsening breathlessness, fatigue, and minimal lower limb swelling. His condition further deteriorated, resulting in altered sensorium. Additionally, low urine output was noted. On clinical evaluation,

bilateral basal crepitus was heard, suggesting pulmonary edema due to fluid overload. A POCUS was performed, revealing no effusions or clots. Laboratory findings showed significant hyperkalemia (serum potassium of 5.7 mmol/L) and hyponatremia (serum sodium of 118 mmol/L). Serum creatinine had risen to 3.3 mg/dL from a baseline of 1.5 mg/dL. He was severely acidotic with a pH of 7.09 and an anion gap of 12.6, with normal serum lactate and ketone levels. Elevated blood urea nitrogen and creatinine, along with a marked increase in serum osmolality, indicated mannitol toxicity with acute renal injury. Mannitol administration was immediately withdrawn, and the patient was started on intravenous diuretics, electrolyte correction, and supportive care, including high-flow nasal cannula oxygen therapy, before being transferred to the intensive care unit. A nephrology referral was obtained for further management. After aggressive treatment and electrolyte correction, his clinical condition stabilized, and his normal sensorium returned. **CONCLUSION:** This case highlights the potential risks of mannitol toxicity, particularly in patients with pre-existing renal impairment or those exposed to high cumulative doses. Careful monitoring of electrolyte levels and renal function in patients receiving mannitol and lowering the threshold for discontinuation at the first sign of toxicity is essential. Early recognition and rapid correction are crucial to prevent harmful complications.

**Key Words:** Mannitol, Acute Kidney Injury, Metabolic Acidosis.

## 17. ASSESSMENT OF THE IMPACT OF ALCOHOL INTAKE ON COGNITION– A COHORT STUDY

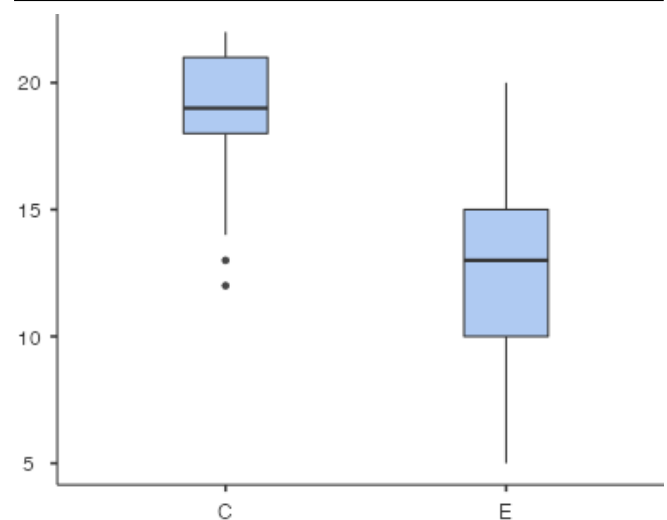
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**BACKGROUND:** Alcohol is one of the most consumed psychoactive substances in the world. The deleterious impact of alcoholism is a major public health issue worldwide due to its consequential long-term, social and economic damage. Besides these socioeconomic effects, alcoholism also results in various degrees of physiological aberrations that lead to abnormalities in cognitive and behavioral functions. In India, it is estimated that approximately 75 million people consume alcohol. Evaluation of the impact of alcohol consumption on cognition becomes the need of the hour due to the interference of cognitive decline with daily function and independence. **AIMS:** To evaluate cognition ability in alcoholics with a prolonged history of alcohol intake using blinded Montreal Cognitive Assessment (MoCA) and to compare cognition between alcoholics and non-alcoholics. **METHODS:** The study includes 30 alcoholic males without any comorbidities (experiment), attending the outpatient department and 30 healthy appropriate non-alcoholics (control) within the age group of 18-45 years of age. Assessment of alcohol intake is done using Alcohol Use Disorder Identification Test (AUDIT) questionnaire and cognitive assessment was performed using blinded Montreal Cognitive Assessment (MoCA) to make it feasible for illiterates. The data was collected and entered into MS-EXCEL sheet and independent sample t test was applied for tests of statistical significance (p-value < 0.001 will be considered as significant). **RESULTS:** The mean age of the subjects in the experimental group is 40.5±8.5 yrs and that of control group is 39.6±9.82 yrs. In the study, 23.3% were light drinkers, 40% were moderate and 36.6% were light drinkers. The study has shown statistically significant correlation between experimental (12.5±3.95) and control (18.9±2.71) groups. (p<0.001). Our results included a crucial finding that alcohol consumption has significant impact on cognitive decline. **CONCLUSION:** Based on the results of this study,

it can be concluded that long-term alcohol consumption has a detrimental influence on cognition. Studies of the cognitive repercussions of alcohol ingesting with the aid of using the usage of the actual international countrywide represented database are scarce within the literature. Higher information on the variations within the effect of alcohol use on cognitive impairment in older adults may also offer precious facts on their care. Conflicting results among various studies could be because of differences in tools used to evaluate cognitive dysfunction; the definitions of the quantity and pattern of alcohol drinking, smoking status, educational and occupational attainment, comorbidities, and psychotropic drug use.

**Figure:** Box plot representing the distribution of blind MoCA score among alcoholics (E) and non-alcoholics (C).



**Key Words:** Cognition, Alcohol, Montreal Cognitive Assessment (MoCA).

**18. PREDICTING EXTENDED ICU STAY FOLLOWING CORONARY ARTERY BYPASS GRAFTING AND ITS IMPACT ON HOSPITALIZATION AND MORTALITY**

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=7061s>

**BACKGROUND:** Coronary artery bypass grafting (CABG) remains one of the most common surgical treatments for coronary artery disease (CAD), aimed at reducing symptoms and enhancing patient survival. A critical element of post-CABG care is the duration of the patient's stay in the intensive care unit (ICU), with an ideal target of fewer than 24 hours. However, a range of preoperative, intraoperative, and postoperative factors can extend ICU stays, leading to increased strain on hospital resources, poorer patient outcomes, and higher healthcare costs. This study seeks to identify the key factors that contribute to ICU stays exceeding 48 hours following CABG and CABG combined with heart valve surgery, and to analyze their association with postoperative complications and mortality rates. **METHODS:** We conducted a retrospective cohort study at King Abdullah University Hospital (KAUH), analyzing data from 1,395 patients who underwent isolated CABG or CABG combined with valve surgery between January 2004 and December 2022. The patients were categorized into two groups: Group 1, with ICU stays of 48 hours or less (n=1,082), and Group 2, with ICU stays longer than 48 hours (n=313). A comprehensive analysis of clinical, laboratory, and demographic data was performed to identify predictors of prolonged ICU stays. Statistical methods were applied to evaluate the relationship between these factors and the length of ICU stay. **RESULTS:** Our analysis revealed that patients in Group 2, who had ICU stays longer than 48

hours, were significantly older, with a mean age of 61.5 years compared to 58.7 years in Group 1 (p<0.001). Several preoperative conditions were strongly associated with prolonged ICU stays, including recent myocardial infarction (OR=1.69, p=0.015), chronic obstructive pulmonary disease (COPD) or asthma (OR=1.49, p=0.003), and preoperative renal impairment (OR=1.89, p=0.002). Intraoperative factors also significantly influenced ICU stay duration, with emergency or urgent surgeries (OR=2.19, p<0.001) and extended ventilator support during surgery (OR=5.92, p<0.001) being the most critical predictors. Postoperative complications emerged as significant determinants of ICU stay length. The development of renal impairment post-surgery (OR=6.78, p<0.001) and the occurrence of pneumonia or sepsis (OR=8.92, p<0.001) were strongly correlated with prolonged ICU stays and were also linked to higher mortality rates. **CONCLUSION:** This study highlights the significant role of preoperative comorbidities, intraoperative events, and postoperative complications in prolonging ICU stays after CABG. Extended ICU stays are associated with an increased risk of severe postoperative complications and higher mortality, emphasizing the need for improved surgical and postoperative care protocols. By targeting the identified risk factors, healthcare providers can potentially reduce ICU durations, enhance patient outcomes, and alleviate the burden on healthcare systems. These findings underscore the importance of optimizing ICU resource utilization in the context of cardiac surgery.

**Table.** Demographic and Clinical Characteristics of Patients Stratified by ICU Stay Duration Following CABG Surgery.

Characteristics	Total (1395)	ICU>2 (313)	ICU<2 (1082)	P-value
Age, mean (SD)	59.3 (9.98)	61.5 (10.4)	58.7 (9.77)	< .001*
≥70 (years)	222 (15.9 %)	71 (22.7 %)	151 (14.0 %)	< .001
Sex: Male	1081(77.5 %)	249 (79.6 %)	832(76.9 %)	0.321
BMI	26.4 (4.90)	26.7(4.34)	26.3(5.05)	0.158*
Underweight	46	5 (31.6 %)	41 (3.8 %)	0.056
Healthy weight	495	99 (31.6 %)	396 (36.6 %)	0.106
Overweight but not obese	581	144 (46.0 %)	437 (40.4 %)	0.076
Obese class I	186	46 (14.7 %)	140 (12.9%)	0.421
Obese class II	52	12 (3.8 %)	40 (3.7%)	0.910
Obese class III	9	1 (0.3%)	8 (0.7 %)	0.414

**Key Words:** Coronary artery bypass graft, Intensive care unit, Hospitalization, Mortality.

### 19. A CROSS-SECTIONAL STUDY ON LOWER BACK PAIN AMONGST MEDICAL STUDENTS AND FOUNDATION DOCTORS IN MALTA

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=13111s>

**INTRODUCTION:** Lower back pain (LBP) is one of the most common health problems and a significant global burden on both an individual and economic level. It is especially prevalent amongst healthcare workers and students, partly due to working conditions. This study aimed to investigate the prevalence and common risk factors of LBP amongst medical students and foundation doctors in Malta.

**METHODS:** A mixed-methods cross-sectional, online questionnaire based on the Nordic Musculoskeletal Questionnaire was distributed to medical students and foundation doctors in Malta. Quantitative

data was analyzed by means of Chi-squared test followed by multivariate analysis, whilst qualitative data was organized into broad themes. **RESULTS:** A total of 319 individuals participated in the questionnaire. The 12-month and 7-day prevalence of lower back pain in the sample population overall is 78.14% and 28.71% respectively. Females and students who worked during medical school were more likely to have LBP ( $p < 0.001$  and  $p = 0.040$  respectively). Long working/studying hours and awkward sitting/standing postures were identified as contributors to LBP by participants. **CONCLUSIONS:** Lower back pain is a highly prevalent issue amongst medical students and foundation doctors in Malta. If unaddressed, it will continue to contribute to disability, decreased quality of life and reduced career longevity. An approach based on Human Factors and Ergonomics principles focusing on ergonomic design and ergonomics training in medical school can lead to improved staff wellbeing and increase patient safety and efficiency.

**Key Words:** Lower back pain, prevalence, medical students, doctors, Malta.

**AWARD FOR THE HIGHEST SCORE DURING THE ABSTRACT REVISION PROCESS FOR CASE REPORTS, 2nd PLACE:**

**20. BENEFITS OF PULMONARY LOBECTOMY IN INFECTION BY ACTINOMYCES**




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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=19091s>

**BACKGROUND:** Pulmonary actinomycosis is an uncommon disease with a non-specific clinical presentation, which makes difficult its diagnosis and usually leads to a misinterpretation of malignancy rather than infection. **THE CASE:** A 30-year-old female patient with no relevant history, who began her illness a year and a half ago with cough, chest pain, weakness, and hemoptysis. She received medical treatment, however, the episodes of hemoptysis persisted, so it was decided to take samples for KOH test and acid-fast stain, both of which were negative, and a simple computed tomography scan was performed, in which bronchiectasis was found in the posterior basal segment of the right lung. Afterwards, blood tests were done, showing mild leukocytosis (Table 1). Bronchoscopy was performed, where a mass was found, and a biopsy was taken. Subsequently, squamous metaplasia and sulphur granules with dystrophic calcification were observed, leading to a diagnosis of pulmonary actinomycosis. Treatment with amoxicillin was given for 12 months.

Three months later, she persisted with occasional hemoptysis, so it was decided to perform a right lung lobectomy, showing clinical improvement. Six months later, the symptoms improved completely. **CONCLUSION:** This condition used to be fatal, however, since the development of penicillin, its incidence has decreased drastically to the point that only 94 cases were reported in the first decade of the 21st century, therefore it is unlikely to be considered among the differential diagnoses. In addition to this, it is a great mimic of malignancy, being misdiagnosed as a pulmonary neoplasm. The definitive diagnosis is based on the finding of sulfur granules. The most used treatment is penicillin for 6 to 12 months and, in case of persistence or recurrence of symptoms, it can be complemented with surgical treatment, which has shown positive results. It is important to consider it among the differential diagnoses in patients with non-specific symptoms and a negative result for the most common pathogens.

**Table:** Blood Test Results for the Evaluation of a Patient with Pulmonary Actinomycosis.

Paraclinical report	Value	Normal value
Leukocytes (cells/mm <sup>3</sup> )	10,300	4,000 – 10,000
Platelets (cells/mm <sup>3</sup> )	238,000	150,000 – 400,000
Glucose (mg/dl)	96.3	70 - 99
Sodium (mEq/l)	137	135 – 145
Potassium (mEq/l)	3.3	3.5 - 5

**Key Words:** Actinomycosis, cardiothoracic surgery, penicillin, case report.

## 21. HIGH ALTITUDE PULMONARY EDEMA IN A NATIVE HIGHLANDER: A CASE REPORT FROM NEPAL

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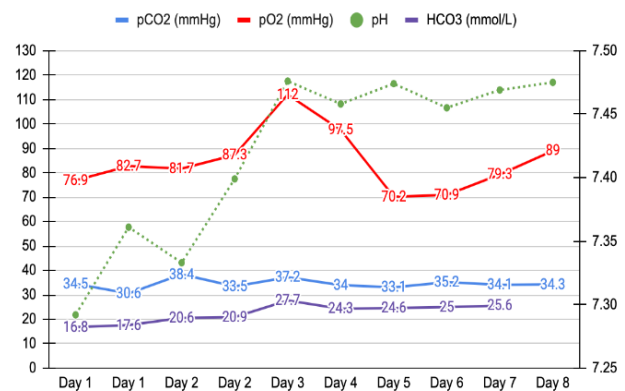
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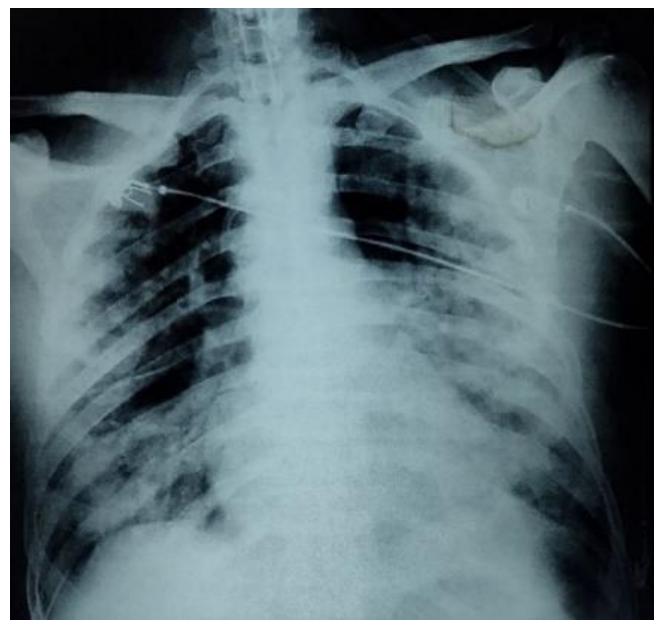
**BACKGROUND:** High altitude pulmonary edema (HAPE) is a non-cardiogenic pulmonary edema, that usually occurs in unacclimatized lowlanders rapidly ascending above 2,500-3,000 m and in highlanders returning from lower altitudes, with both forms likely sharing the same pathophysiology. Its incidence among Himalayan trekkers and Alp's climbers is approximately 4%, often varying with rate of ascent. It usually manifests within 2–4 days of arriving at altitudes exceeding 2,500 meters. The factors predisposing HAPE include prior respiratory infection, rapid ascent, prior history of HAPE, genetic predisposition. Patients with HAPE exhibit increased pulmonary artery pressures, normal left atrial pressure, heightened pulmonary vasoreactivity to hypoxia, and often benefit from treatments lowering pulmonary artery pressures. **THE CASE:** A 41-year-old male of Rai ethnicity, born and raised in the Himalayan region of Nepal began experiencing shortness of breath during his ascent of Mount Everest at around 5,000 meters. The individual, currently employed as a trekking porter, had previously descended to an altitude of 3,420 meters for 2 weeks before commencing his ascent. He reported to have progressively worsening shortness of breath. After the onset of symptoms, he started to descend during which he fell unconscious and was brought to a hospital in Lukla. He had a low Glasgow Coma Scale score of 3/15 and SpO<sub>2</sub> could not be determined by pulse oximetry. At the hospital, he quickly regained consciousness after receiving supplemental oxygen. He was then referred to the tertiary care center in Kathmandu for further evaluation and treatment. At the emergency department, he reported progressive shortness of breath, worsening from MMRC grade II to IV, and orthopnea. He had a similar episode three years prior and no known co-morbidities. Vital signs were stable with oxygen saturation (SpO<sub>2</sub>) of 81% in ambient air. Physical examination revealed bilateral wheezes and crackles on chest auscultation. Neurological and abdominal examinations were normal. Laboratory analysis revealed neutrophilia (80%), lymphocytopenia (15%), leukocytosis (14,900 cells/mm<sup>3</sup>), elevated serum urea (9.4 mmol/l), and high Alanine Transaminase (86 U/l). Liver and renal function tests were normal. Arterial blood gas (ABG) analysis revealed a low blood pH of 7.292. Sputum, blood, and urine cultures were negative for bacteria and fungi. He was transferred to the ICU for high-concentration oxygen therapy. ABG analysis was performed on a daily basis, with results illustrated in figure 1. He was intubated and mechanically ventilated for 4 days. Initially, chest x-ray was performed which shows pulmonary infiltrates in both lungs indicative of pulmonary edema as shown in figure 2. Throughout his ICU stay, he received iv antibiotics, CCBs and diuretics. By day 3, his crackles had significantly diminished, and a follow-up chest radiograph demonstrated notable improvement (Figure 3). After 8 days, he was

transferred to the respiratory medicine ward for 2 days of observation before discharge. **CONCLUSION:** Despite being physiologically adapted to high altitude conditions, native highlanders and people with prior history of HAPE may still be susceptible to developing high altitude pulmonary edema. Immediate treatment includes supplemental oxygen, hyperbaric treatment, or rapid descent. Nifedipine and dexamethasone can be used for HAPE prophylaxis.

**Figure 1:** Daily Arterial Blood Gas (ABG) Analysis in a Patient with High Altitude Pulmonary Edema (HAPE) During ICU Management.



**Figure 2:** Initial Chest X-Ray Demonstrating Bilateral Pulmonary Infiltrates Indicative of High-Altitude Pulmonary Edema (HAPE).



**Key Words:** High altitude pulmonary edema, Acclimatization, Highlanders.

**22. ENHANCING SURGICAL SKILL PROFICIENCY IN MEDICAL STUDENTS: ANALYZING THE IMPACT OF STUDENT-LED SKILLS LABS**

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=4617s>

**BACKGROUND:** The development of surgical skills is an integral part of undergraduate medical education. Early exposure of medical students to these basic surgical skills can significantly improve interest in pursuing surgical careers during residency. Traditional teaching methods do not efficiently bridge this important gap in the development of the practical abilities of medical students hence warranting the need for more innovative approaches to improve proficiency. There has been an increasing rise in the popularity of student led skills training. This led the Surgical Interest Group, Lagos (SURGIL) to initiate the SURGIL Skills Lab (SSL), a 4-weeks student-led, faculty-supervised basic surgical skills training which was the first of its kind in our region. **AIM:** This study evaluates the impact of SSL on medical students' proficiency, confidence, and overall satisfaction with the training received. **METHODS:** A cohort study was conducted among medical students from the University of Lagos who participated in the SSL following ethical approval from the Institutional Review Board of Lagos University Teaching Hospital (LUTH). Data was collected from two SSL cohorts that had their trainings in the first and second quarter of 2023. Participants were assessed on their confidence levels in performing six basic surgical skills: forceps handling, two-handed knot tying, one-handed knot tying, instrument tying, simple interrupted suturing, and subcuticular suturing, both before and after the training sessions. Confidence was measured using a 4-point Likert scale. Data on participants' demographic characteristics, previous experience with surgical skills, and satisfaction with the lab were also collected. Statistical analysis was performed using IBM SPSS version 26. **RESULTS:** A total of 32 students participated in the study and filled the pre-test survey. 2 students dropped out of the research, hence only 30 students participated in the post test survey. The mean age of participants was 24.09 years with a 1.3:1 male to female distribution. Significant improvements were observed in all six surgical skills post-training. Confidence levels in simple running suture increased from a pre-lab mean of 0.69±0.821 to a post-lab mean of 2.93±0.254. Similarly, confidence in two-handed knot tying improved from 0.63±0.98 to 2.87±0.35. Satisfaction with the SSL was overwhelmingly positive, with all participants (100%) expressing satisfaction with the learning environment and recommending the workshop to others. Additionally, 96.7% of students felt the workshop was positively challenging with adequate practice time and increased their interest

in pursuing surgery as a career. **CONCLUSION:** SSL effectively enhances medical students' surgical skills, significantly improving their confidence in performing basic surgical tasks. The high levels of satisfaction reported by participants suggest that this student-led approach is not only effective but also well-received. Taking into cognizance the positive feedback, integrating student-led surgical skills lab into the medical school curriculum could help address gaps in surgical training especially in centers with reduced lecturer-workforce. This will help in better preparing students for clinical practice while enhancing their engagement and commitment in their education. The results of this study support the expansion of similar programs to other medical schools, potentially resulting to a greater impact on undergraduate surgical education.

**Table:** Pre- and Post-Training Confidence Levels in Surgical Skills Among Medical Students Participating in the Student-Led Skills Lab.

Variables	Mean±SD	Cannot perform at all n (%)	Can perform with guidance n (%)	Can perform independently but require guidance at times n (%)	Can perform independently n (%)
<b>Forceps handling</b>					
Pre	1.16±0.920	8 (25.0)	14 (43.8)	7 (21.9)	3 (9.4)
Post	2.87±0.434	0 (0.0)	1 (3.3)	2 (6.7)	27 (90.0)
<b>Two handed knot tying</b>					
Pre	0.63±0.976	20 (62.5)	7 (21.9)	2 (6.2)	3 (9.4)
Post	2.87±0.346	0 (0.0)	0 (0.0)	4 (13.3)	26 (86.7)
<b>One handed knot tying</b>					
Pre	0.56±0.982	22 (68.7)	5 (15.6)	2 (6.2)	3 (9.4)
Post	2.77±0.568	0 (0.0)	2 (6.7)	3 (10.0)	25 (83.3)
<b>Instrument tie</b>					
Pre	0.94±1.190	17 (53.1)	6 (18.8)	3 (9.4)	6 (18.8)
Post	3.00±0.000	0 (0.0)	0 (0.0)	0 (0.0)	30 (100.0)
<b>Simple interrupted suture</b>					
Pre	0.91±1.027	15 (46.9)	8 (25.0)	6 (18.8)	3 (9.4)
Post	2.93±0.254	0 (0.0)	0 (0.0)	2 (6.7)	28 (93.3)
<b>Simple running suture</b>					
Pre	0.69±0.821	16 (50.0)	11 (34.4)	4 (12.5)	1 (3.1)
Post	2.93±0.254	0 (0.0)	0 (0.0)	2 (6.7)	28 (93.3)
<b>Subcuticular suture</b>					
Pre	0.63±0.907	19 (59.4)	8 (25.0)	3 (9.4)	2 (6.2)
Post	2.67±0.547	0 (0.0)	1 (3.3)	8 (26.7)	21 (70.0)


**Key Words:** Medical Students, Clinical Competence, Undergraduate Medical Education.



### 23. KNOWLEDGE, ATTITUDE, AND PRACTICE OF BREAST SELF-EXAMINATION AMONG FEMALE STUDENTS OF NIGER DELTA UNIVERSITY

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=21124s>

**BACKGROUND:** Cancer, characterized by uncontrollable cell division leading to tissue destruction, is a leading cause of death globally. Breast cancer, in particular, affects 2.1 million women annually and causes significant mortality, especially in less developed regions due to late detection and limited access to treatment. In Nigeria, the incidence rate of breast cancer is 33.6 per 100,000 women. Early detection through methods like breast self-examination (BSE) is crucial, particularly in developing countries where mammography may not be feasible. BSE is recommended due to its simplicity, privacy, and lack of cost, yet awareness and practice remain low. This study assesses the knowledge, attitude, and practice of BSE among female students at Niger Delta University to provide insights into the effectiveness of current awareness efforts. **METHODS:** A descriptive cross-sectional study was conducted over six weeks at Niger Delta University, Bayelsa State, Nigeria. A sample of 376 female undergraduates, aged 18-30 years, was selected using multistage

sampling. Data was collected through semi-structured, self-administered questionnaires. Knowledge of BSE was assessed through a scoring system, and attitudes and practices were evaluated based on responses to various statements and self-reported practices. The data was analyzed using SPSS version 21, with knowledge scores categorized as poor (0-4), fair (5-7), or good (8-9).

**RESULTS:** Of the respondents, 77.4% were single, and 60.9% had good knowledge of BSE, while 35.4% had fair knowledge, and 3.7% had poor knowledge. Attitude towards BSE was generally positive, with 72.6% agreeing that BSE is not time-consuming. The practice of BSE was reported by 64.4% of respondents, with 96.7% performing it at least monthly. Knowledge of BSE was notably higher among students from medical departments, and those with a family history of breast cancer. The study indicated that increased awareness and education have contributed to better knowledge and practice of BSE compared to past studies. **CONCLUSION:** The study highlights a significant level of awareness and positive attitude towards breast self-examination among female students at Niger Delta University. Despite the encouraging practice rates, there remains a need for continuous education and outreach to further improve the regular practice of BSE and enhance early detection of breast cancer.

**Key Words:** Breast neoplasms, Female, Morbidity, cause of death.

#### 24. ASSESSMENT OF HIV PREVALENCE IN ADULTS WITHIN THE ALIADE COMMUNITY, BENUE STATE

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=18043s>

**BACKGROUND:** Benue State is recognized as one of Nigeria's high-risk zones for HIV, with an estimated prevalence of 4.8% among adults aged 15-64 years. The prevalence is notably higher among females at 6.3% and lower among males at 3.5%, making it the second highest HIV prevalence state in Nigeria. Despite relatively high awareness levels, the infection rate continues to rise in rural areas. This study focused on Aliade, a community in the TIV land, conducting random HIV testing on 500 adult outpatients aged 15-64 years over a period

of five months, with Aliade General Hospital serving as the testing site. The study aimed to determine the HIV infection rate among adults in the Aliade community of Benue State, Nigeria, by assessing the prevalence of HIV. **METHODS:** A hospital-based randomized study was conducted at Aliade General Hospital, Benue State. HIV testing was performed using the rapid diagnostic testing algorithm according to Nigeria's National HIV testing guidelines, with seropositive samples confirmed by supplemental assays. Data was collected over five months and analyzed using IBM SPSS version 26. **RESULTS:** The study included 500 respondents with a mean age of 39.4 years. Of the participants, 215 were male and 285 were female. Over half were married, and approximately 70% had only secondary education. While 90% of respondents were aware of HIV, only 60% had previously undergone testing. The prevalence of HIV was 5.6% overall, with 6.7% among females and 3.3% among males. **CONCLUSION:** Despite awareness of HIV, the prevalence remains high and is increasing. This study underscores the need for enhanced awareness and intervention strategies to address the growing HIV epidemic in Benue State.

**Key Words:** HIV Infections, Public Health, HIV Testing, Pandemics, prevalence.

## 25. COMPARISON OF SLEEP HYGIENE INDEX IN VIRTUAL, TEXTBOOK AND HYBRID LEARNERS IN UNDERGRADUATE STUDENTS

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=3514s>

**BACKGROUND:** Sleep hygiene is a set of behavioral and environmental factors that promote healthy sleep (1). The digital age has changed the way we learn by incorporating technology with textbooks. Screens emitting blue light suppress melatonin release and alter the Circadian rhythm, leading to an irregular sleep-wake cycle and poor sleep quality, which can be measured by sleep hygiene (2-9). Healthcare students are at an increased risk of developing poor sleep hygiene due to their long study and clinical hours. This study explores the relationship between different learning modes (textbook, virtual, and hybrid) and sleep hygiene among students at Shalamar Institute of Health Sciences. **METHODS:** An IRB-approved, cross-sectional, questionnaire-based study was conducted with a sample size of 400 students from Shalamar Institute of Health Sciences. Participants were selected through simple randomization, ensuring equal representation from each academic year. The study utilized a Sleep Hygiene Questionnaire, which included demographic questions, mode of study, study screen time, and the validated Sleep Hygiene Index (SHI) (6). SHI scores were categorized into three groups based on the Likert scale: healthy (scores <26), normal (scores 27-43), and unhealthy (scores >35). Data were analyzed using SPSS 20, employing chi-square tests to assess associations between learning modes and SHI scores, correlation analysis to examine the relationship between study screen time and SHI scores, and ANOVA to identify differences in SHI scores among different learning modes. Tukey's HSD post hoc test was used to further interpret significant findings. **RESULTS:** Of the 400 students, 20.9% identified as textbook learners, 20.9% as virtual learners, and 58.1% as hybrid learners. Analysis of SHI scores revealed that 22.4% of students had unhealthy sleep hygiene, 23.3% had normal sleep hygiene, and 54.4% had healthy sleep hygiene. The chi-square test showed a significant association between learning mode and SHI scores ( $p < 0.05$ ). Additionally, a positive correlation was observed between study screen time and SHI scores ( $r = 0.36$ ,  $p = 0.01$ ), indicating that higher screen time is associated with poorer sleep hygiene. ANOVA results revealed significant differences in SHI scores among different learning

modes, with virtual learners scoring worse compared to textbook and hybrid learners. The Tukey's HSD test provided further details on these differences, showing that virtual learners had significantly higher SHI scores, suggesting poorer sleep hygiene. **CONCLUSION:** The study concluded that virtual learners exhibited poorer sleep hygiene compared to textbook and hybrid learners. Increased screen time associated with virtual learning is linked to higher SHI scores, suggesting that extended use of electronic devices negatively affects sleep hygiene. These findings highlight the need for strategies to manage screen time and promote better sleep practices among students engaged in virtual learning.

**Table 1:** Comparison of Sleep Hygiene Scores Across Different Learning Modes in Undergraduate Students.

Preferred mode of learning	Sleep Hygiene Score			Total
	<=26 Healthy	27-34 Normal	>=35 Unhealthy	
Textbooks	60 71.4%	16 19.0%	8 9.5%	84 100.0%
Hybrid	144 61.8%	58 24.9%	31 13.3%	233 100.0%
Virtual	14 16.7%	19 22.6%	51 60.7%	84 100.0%

**Table 2:** Pairwise Comparisons of Study Screen Time and Sleep Hygiene Index (SHI) Scores Across Different Learning Modes.

	Preferred mode of learning	Mean Difference	Std. Error	P Value	
Study Screen time	Textbooks	Hybrid	-2.468	0.305	.000
		Virtual	-4.528	0.370	.000
	Hybrid	Textbooks	2.468	0.305	.000
		Virtual	-2.060	0.305	.000
	Virtual	Textbooks	4.528	0.370	.000
		Hybrid	2.060	0.305	.000
SHI Score	Textbooks	Hybrid	-2.645	1.032	.029
		Virtual	-12.96	1.251	.000
	Hybrid	Textbooks	2.645	1.032	.029
		Virtual	-10.31	1.032	.000
	Virtual	Textbooks	12.96	1.251	.000
		Hybrid	10.31	1.032	.000


**Key Words:** Sleep Hygiene, Screen Time, Circadian Rhythm.

## 26. POTENTIAL HERB-DRUG INTERACTIONS AMONG ELDERLY NURSING HOME RESIDENTS IN ROMANIA

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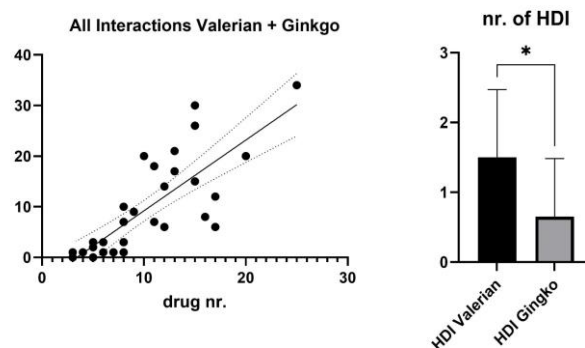
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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=13559s>

**BACKGROUND:** Herbal supplements are widely used as complementary or alternative medicines, but their phytochemical effects on conventional drugs are often overlooked. Evidence shows that herb-drug interactions (HDIs) are significant in clinical pharmacology. However, the current use of herbal supplements and the prevalence of HDIs among elderly patients in nursing homes is not known. **AIM:** Our study investigates the algorithm-predicted HDIs during herb-drug coadministration among elderly patients in nursing homes in a Romanian sample. **METHODS:** We collected demographic data, clinical history and medication of elderly patients from three nursing homes across Romania. We focused on patients using Valerian and Ginkgo biloba (Ginkgo) to investigate their role in HDIs. A freely available online platform was used (MedScape Drug Interaction Checker) to identify and describe potential HDIs with severity grades from 1 to 4 (1=minor; 2=monitor closely; 3=serious, use alternative; 4=contraindicated). Further analyses were carried out using GraphPad Prism. **RESULTS:** 275 patients were included, of these, 10 used Valerian-containing products and 23 used Ginkgo. The average age was 84.58.2 for women; and 7311.0 for men, 60.6% of patients were female and 39.4% male. A total of 304 possible interactions were identified, with 9.2% (n=28) predicted to be related to the coadministration of Valerian or Ginkgo with synthetic drugs. 10.7% (n=3) of the interactions were grade 1, 42.8% (n=12) were grade 2, 46.4% (n=13) were grade 3, and no grade 4 interaction was found. The most commonly affected drug classes in HDIs were antiplatelets (n=10), anticoagulants (n=1), and NSAIDs (n=1) for Ginkgo, and benzodiazepines (n=7), sedatives (n=5), and SSRIs (n=3) for Valerian. The number of possible interactions between the Valerian and Ginkgo-treated groups was compared using the Mann-

Whitney U test, which revealed a significant difference (p=0.02) with a higher number of interactions in the case of Valerian. We conducted a regression analysis that showed a significant relationship between the number of drugs/supplements taken and the number of interactions with severity grades 1 ( $R^2=0.40$ ;  $p<0.0001$ ) and 2 ( $R^2=0.69$ ;  $p<0.0001$ ). Additionally, in the case of Ginkgo usage, a significant regression was found for HDIs ( $R^2=0.28$ ;  $p=0.0087$ ). **CONCLUSION:** We found a significant number of potential HDIs caused by Valerian and Ginkgo, with nearly half of these being serious enough to warrant increased attention or consideration of alternatives. The most frequently affected drug classes were antiplatelets for Ginkgo and benzodiazepines, sedatives, and SSRIs for Valerian. Our regression analysis showed that the number of drugs/supplements could predict the number of possible interactions with severity grades 1 and 2, and Ginkgo-related HDIs. Since the identified interactions are predictions, future research is needed to assess their actual occurrence and clinical impact.

**Figure:** Comparison of Herb-Drug Interactions (HDIs) Associated with Valerian and Ginkgo: Regression Analysis of Total Interactions and Severity Scores.




**Key Words:** Herb-drug interaction, Nursing home, Ginkgo biloba, Valerian, Pharmacokinetics.

## 27. KNOWLEDGE, ATTITUDES AND PRACTICE ON MASK WEARING FOR RESPIRATORY TRACT INFECTIONS DURING THE POST COVID-19 PERIOD AMONG VISITORS COMING TO THE OUT PATIENT DEPARTMENT AT TEACHING HOSPITAL, PERADENIYA, SRI LANKA.

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<sup>1</sup> Faculty of Medicine, University of Peradeniya

 <https://www.youtube.com/live/fSpXH-3Xy5w?t=1103s>

**BACKGROUND:** During the Covid-19 period, mask wearing was widely used to prevent disease transmission. Continued practice of mask wearing during the post pandemic period along with its proper understanding would contribute to further reduction of respiratory tract infections in future. Therefore, we aimed to assess the knowledge, attitudes and practices towards mask wearing for preventing respiratory tract infections in our study population.

**METHODS:** A cross-sectional descriptive study was done with 423 visitors aged 18 to 75, including visitors and caregivers who came to Out Patient Department (OPD) in Teaching Hospital, Peradeniya, Sri Lanka. Ethical approval was obtained, and data was collected by using a validated self-administered printed questionnaire in April 2024. Participants were also observed during the interview to evaluate their mask wearing practices. A knowledge score was calculated and compared with demographic variables. **RESULTS:** Of 394 completed questionnaires, 273(69.3%) were female and 199(50.51%) were patients and the majority were young adults (18y-35y). The mean age

was 34.05y (SD – 13.89). The overall knowledge score which was not normally distributed varied from 6 to 18 out of 19 with a mean of 14.41(SD 2.30) and a median of 15.00 (IQR= 13-16) which didn't significantly differ across age, gender, experience and vaccination status of Covid-19. The majority (207, 52.5%) had moderate (60-79%) overall knowledge. The median knowledge was higher among those who were educated above school level (16.00, IQR 14-17) than those with school education (14.00, IQR 16-13) ( $p < 0.001$ ). Most 367 (93.2%) declared they knew how to wear a mask properly while 349 (88.6%) declared they knew the indications to wear masks in the post-pandemic period. Vaccination caused a negative impact on attitude as those who uncompleted vaccination schedule agreed with necessity while those with completed vaccine schedule did not. Only 133 (33.8%) had responded that they were wearing masks in the post pandemic period. All 133 has good knowledge (80 – 100%) on mask wearing. On observation only 74 (18.8%) were wearing masks. The majority who were wearing masks while participating (56/74, 75.68%) were either having respiratory symptoms or accompanying someone with respiratory symptoms while of the 320 who were not wearing masks 205 (64.06%) were having respiratory symptoms or accompanying someone with respiratory symptoms. **CONCLUSION:** Although the study shows all of the participants who declared that they were wearing a mask during the post Covid-19 period possessed a good knowledge score, the overall knowledge of the majority on the transmission of respiratory tract infections and mask usage was moderate. Further, observed practices indicated that those with or accompanying those with respiratory tract infections were not wearing masks.

**Key Words:** Respiratory Tract Infections, Mask, COVID – 19.

**MOST-LIKED RESEARCH PRESENTATION AWARDED BY THE PUBLIC****28. WHEN IMMUNODEFICIENCY MEETS NEUROSURGERY: BRAIN ABSCESS IN A WISKOTT-ALDRICH SYNDROME PATIENT**

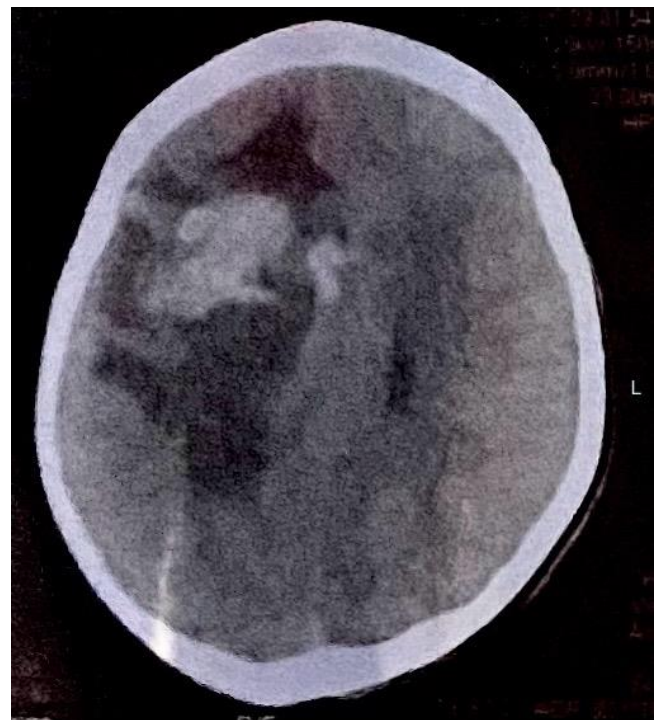
Kalhara Jayasooriya<sup>1</sup>, Pathirana NPNB<sup>1</sup>, Wijayasuriya WAKR<sup>1</sup>  
<sup>1</sup> Faculty of Medicine, Wayamba University of Sri Lanka

<https://www.youtube.com/live/fSpXH-3Xy5w?t=8880s>

**CASE REPORT:** A 4-year-old male with a known diagnosis of WAS, presented with a sudden onset of abnormal behavior and left-sided eye and upper limb twitching that lasted around 15 minutes. These movements were not associated with loss of consciousness, tonic-clonic activity, frothing, tongue biting, or incontinence. The mother reported no fever, and there were no obvious infective foci identified. Notably, the child had a recent history of generalized eczema that had been infected and treated at a local hospital, and he had experienced multiple past episodes of eczema infected with methicillin-resistant *Staphylococcus aureus* (MRSA). On examination, the patient was clinically well and afebrile, with no apparent neurological deficits. He was alert and active, with healed eczematous rashes noted over the body. Other systemic examinations were unremarkable. Given the abnormal behavior and history of thrombocytopenia, a non-contrast CT (NCCT) of the brain was performed to rule out trauma or intracranial hemorrhage. The NCCT revealed a focal lesion with ring enhancement in the right hemisphere, consistent with a brain abscess. Blood cultures returned positive for MRSA, although inflammatory markers were only mildly elevated (CRP: 25 mg/L, leukocytes:  $13.71 \times 10^9/L$ ). The patient was promptly optimized for neurosurgery with platelet transfusion and intravenous immunoglobulin (IVIg). A neurosurgical team performed burr hole drainage of the brain abscess, and high-dose intravenous antibiotics, including cefotaxime, metronidazole, and vancomycin, were initiated. The pus culture confirmed the presence of MRSA. Despite clinical improvement, the patient experienced two episodes of focal neurological seizures, prompting the initiation of prophylactic anticonvulsant therapy to prevent further seizures. **CONCLUSION:** Brain abscesses are a rare but serious complication in patients with Wiskott-Aldrich Syndrome, highlighting the complexity of managing CNS infections in immunocompromised individuals. Early recognition and aggressive management, including prompt imaging, targeted

microbiological analysis, and a multidisciplinary approach, are crucial for improving outcomes. This case underscores the necessity of maintaining a high index of suspicion for CNS infections in patients with WAS, especially when neurological symptoms are present. The successful management of this case demonstrates the importance of early intervention and tailored antibiotic therapy in achieving a favorable outcome, even in the context of severe underlying immunodeficiency.

**Figure.** Non-Contrast CT Scan Showing Ring-Enhancing Lesion in the Right Hemisphere Consistent with a Brain Abscess in a Wiskott-Aldrich Syndrome Patient.



**Key Words:** Wiskott-Aldrich Syndrome, Brain Abscess, Primary Immunodeficiency Diseases.

## 29. PREVALENCE AND RISK FACTORS OF ANEMIA AMONG CONFLICT-AFFECTED POPULATIONS IN SUDAN: A CROSS-SECTIONAL STUDY

Ibrahim Nagmeldin Hassan<sup>1</sup>, Mohamed Ibrahim<sup>2</sup>, Ahmed MohammedAlhassan Ismail Abdulsamad<sup>1</sup>

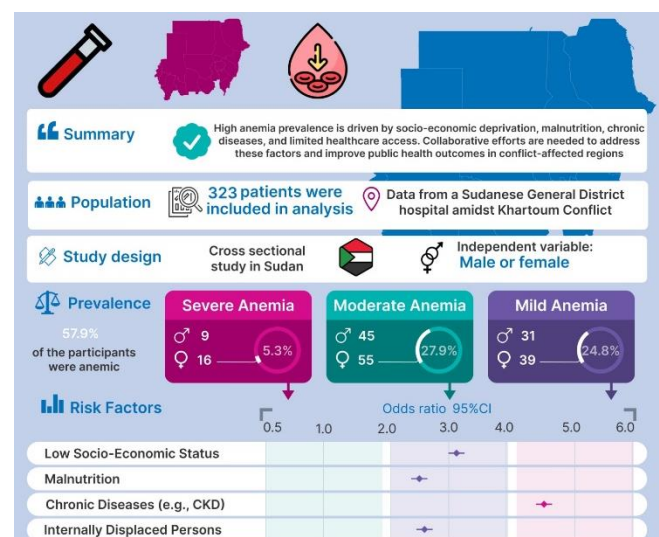
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**BACKGROUND:** Anemia is a significant public health concern, particularly in conflict-affected regions, where poor nutrition, limited access to healthcare, and displacement exacerbate its prevalence. Political tension between the leading military force in the nation, the Sudanese Armed Forces (SAF), and the Rapid Support Forces (RSF), which began on April 15, 2023, is currently ongoing mainly in Khartoum State. Despite the impact of the conflict on the region, there is a lack of data regarding the nutritional status of the residents. The aim of this study is to assess the prevalence, severity, and risk factors of anemia in populations affected by the ongoing armed conflict in Sudan. **METHODS:** We conducted a cross-sectional study among residents of Khartoum State at a regional hospital in Sudan between May 12 and July 26, 2024. We included 323 participants selected through a systematic random sampling method. We used a modified validated standard questionnaire to collect demographic information. We reviewed medical records to gather the participant's chronic and infectious disease history. We collected blood samples for laboratory assessments, including hemoglobin, serum iron, and vitamin B12 levels. The study also considered socio-economic status, dietary intake, and healthcare access. We analyzed the data using SPSS version 26.0. We used descriptive statistics to determine the prevalence and severity of anemia, and logistic regression was employed to identify predictors of anemia among the study population. A p-value of 0.05 or less was considered statistically significant. **RESULTS:** Out of the 323 participants in the study, 57.9% (95% CI: 52.7%-63.1%) were anemic, with 24.8% having mild anemia, 27.9% moderate, and 5.3% severe. The mean hemoglobin level was 10.4 g/dL (SD: 1.8). Anemia was significantly more prevalent among internally displaced persons (IDPs), accounting for 35.6%, with a strong association between displacement status and anemia (OR 2.6, 95% CI: 1.7-4.2). Socio-economic factors had an important role in the prevalence of anemia, with low income being a significant predictor (OR 3.2, 95% CI: 1.9-5.1). Participants with inadequate caloric intake (43.3%) were also more likely to be anemic (OR 2.5, 95% CI: 1.6-4.0).

Furthermore, chronic diseases such as chronic kidney disease (9.3%) and diabetes (14%) were associated with higher odds of anemia (OR 4.5, 95% CI: 2.1-9.6 for chronic kidney disease). Infectious diseases, particularly malaria (12.4%), also increased the risk of anemia (OR 2.8, 95% CI: 1.5-5.2). Nutritional deficiencies were prevalent, with 60.4% having low serum iron levels and 18.6% deficient in vitamin B12. Malnutrition was another factor, with 23.2% being underweight and 17% being severely malnourished. Access to healthcare was limited; 44.9% of participants reported no access to iron supplements, and 10.8% had received blood transfusions due to anemia. **CONCLUSION:** This study highlights that anemia is prevalent among Khartoum residents during the conflict in Sudan, with socio-economic deprivation, malnutrition, chronic and infectious diseases, and limited healthcare access being key contributors. Addressing the anemia situation in Sudan requires collaborative efforts from healthcare providers, government agencies, and international organizations to implement effective interventions that reduce the burden of anemia and improve the overall health of populations affected by conflict.

**Figure:** Prevalence and Risk Factors of Anemia in Conflict-Affected Populations in Sudan: A Cross-Sectional Analysis.



**Key Words:** Anemia, Conflict-Affected Populations, Sudan, Prevalence, Socio-Economic Factors, Malnutrition, Healthcare Access.

### 30. DIHYDROARTEMISININ-PIPERAQUINE FOR MALARIA PREVENTION IN HIV-POSITIVE PREGNANT WOMEN: SYSTEMATIC REVIEW AND META-ANALYSIS OF CLINICAL TRIALS

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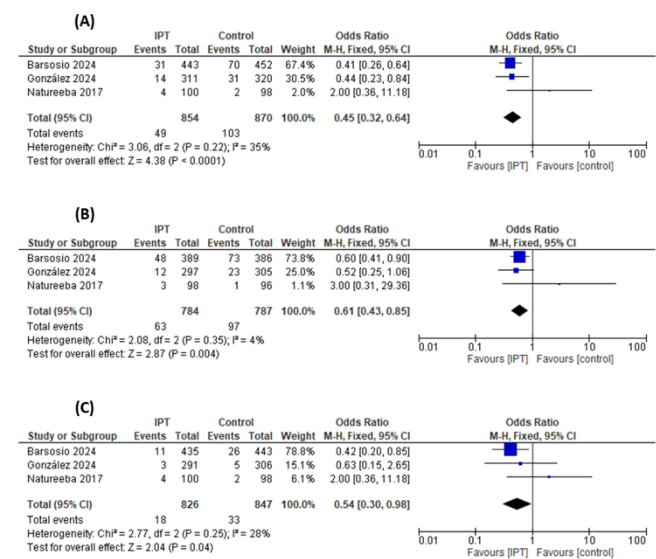
 <https://www.youtube.com/live/fSpXH-3Xy5w?t=17381s>

**BACKGROUND:** Dihydroartemisinin-piperaquine (DP) is a long-acting artemisinin combination treatment that provides effective chemoprevention and has been proposed as an alternative antimalarial drug for intermittent preventive therapy in pregnancy (IPTp). Prevention of malaria infection during pregnancy in HIV-negative women currently relies on the use of long-lasting insecticidal nets together with intermittent preventive treatment in pregnancy with sulfadoxine-pyrimethamine (IPTp-SP). Increasing sulfadoxine-pyrimethamine resistance in Africa threatens the current prevention of malaria during pregnancy. Thus, a replacement for IPTp-SP is urgently needed, especially for locations with high sulfadoxine-pyrimethamine resistance. Dihydroartemisinin-piperaquine is a promising candidate. This systematic review aimed to assess the effectiveness and safety of IPTp-DP in HIV-positive pregnant women.

**METHODS:** This systematic review and meta-analysis followed Cochrane guidelines. Our inclusion criteria were clinical trials on HIV-positive pregnant women using dihydroartemisinin-piperaquine regimens compared to any control group. Primary outcomes included maternal, placental, and cord malaria incidence; secondary outcomes included maternal and neonatal health and adverse effects. We searched PubMed, the Cochrane Library, and Scopus for relevant articles. Two independent reviewers screened the articles. A third reviewer resolved the discrepancies. Meta-analysis was done using RevMan 5.3. Fixed- or random-effects models were used based on heterogeneity, with odds ratios comparing intervention and control groups. **RESULTS:** Intermittent preventive treatment with dihydroartemisinin-piperaquine (IPT-DP) during pregnancy significantly reduces the risk of malaria-related outcomes. Specifically, IPT was associated with a 55% decrease in the odds of having malaria during pregnancy (OR = 0.45, 95% CI: 0.36, 11.18, P ≤ 0.001); a 39% decrease in the odds of placental malaria (OR = 0.61,

95% CI: 0.43, 0.85, P = 0.004); and a 46% decrease in the odds of malaria at delivery (OR = 0.54, 95% CI: 0.30, 0.98, P = 0.04) (Figure 1). However, there was no significant reduction in the risk of adverse events (OR = 0.94, 95% CI: 0.73, 1.20, P = 0.61); low birth weight (OR = 0.94, 95% CI: 0.73, 1.20, P = 0.61); foetal loss (OR = 1.14, 95% CI: 0.67, 1.94, P = 0.62); or stillbirth (OR = 1.03, 95% CI: 0.56, 1.89, P = 0.93). On the other hand, there was a statistically significant increase in the risk of miscarriage in the IPT group compared to the control (OR = 3.37, 95% CI: 1.08, 10.51, P ≤ 0.001). This is 3.37 times the odds of miscarriage with IPT use. **CONCLUSION:** Dihydroartemisinin-piperaquine reduces the risk of malaria and placental malaria in HIV pregnant women. Also, it does not significantly impact adverse pregnancy outcomes such as low birth weight, foetal loss, or stillbirth. However, DP increases the risk of miscarriage. This indicates the need for careful prescriptions for HIV pregnant women.

**Figure.** Effect of IPT on Malaria Outcomes in Pregnant Women; (A) Malaria During Pregnancy, (B) Placental Malaria, (C) Malaria at Delivery.



**Key Words:** Artemisinins, Malaria, HIV, Pregnant Women.



### 31. COMPARATIVE EFFECTIVENESS OF SEQUENTIAL HYGIENE EDUCATION INTERVENTIONS AMONG PRIMARY SCHOOL STUDENTS IN THAILAND: A RANDOMIZED CONTROLLED STUDY.

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 <https://www.youtube.com/live/fSpXH-3Xy5w?t=496s>

**BACKGROUND:** Infectious diseases remain a significant global health challenge, particularly in light of recent pandemics. Effective hygiene education is crucial in mitigating the spread of these diseases, especially among school-aged children. This study aimed to evaluate the effectiveness of two sequential hygiene education interventions—classroom teaching followed by animated videos (C2T) versus animated videos followed by classroom teaching (T2C)—in improving hygiene-related knowledge and practices among primary school students in Thailand. **METHODS:** A total of 2,188 students from six primary schools were enrolled in this randomized controlled study. Participants were randomly assigned to either the C2T (n=1,100) or T2C (n=1,088) intervention groups. Knowledge assessments were

conducted at three points: before the interventions (pre-test), after the first intervention (post-test 1), and after the second intervention (post-test 2). Classroom teaching covered a comprehensive set of 15 hygiene-related questions (Q1-Q15), while the animated videos focused on four key concepts (Q1, Q4, Q7, and Q10). The interventions were evaluated based on the improvement in test scores, with statistical significance determined using p-values.

**RESULTS:** Both interventions led to significant improvements in students' hygiene knowledge from pre-test to post-test 1 and post-test 2 ( $p < 0.001$ ). The T2C group showed a larger initial improvement from pre-test to post-test 1 (mean change = 0.87, 95% CI [0.82, 0.93]), compared to the C2T group (mean change = 0.66, 95% CI [0.60, 0.71]). However, from pre-test to post-test 2, the C2T group exhibited a slightly greater overall improvement (mean change = 0.42, 95% CI [0.37, 0.48]) compared to the T2C group (mean change = 0.31, 95% CI [0.25, 0.37]). These results suggest that while the T2C approach is more effective in the short term, the C2T approach may lead to better long-term retention of knowledge. **CONCLUSIONS:** Both educational sequences effectively enhanced hygiene knowledge among primary school students, with each approach offering unique advantages. The T2C method provides a stronger immediate impact, while the C2T method supports sustained learning. These findings highlight the importance of considering the sequence of educational interventions to maximize their effectiveness in promoting hygiene practices.

**Key Words:** Health Education; Infectious Disease Transmission; Randomized Controlled Trial; Students; Hygiene.

**AWARD FOR BEST RESEARCH PRESENTATION AT THE WCMSR ORIGINAL RESEARCH BASED ON JUDGE SCORES, 2ND PLACE**

**32. UNDERSTANDING THE ROLE OF INFLAMMATION IN ALS-FTSD: A SYSTEMATIC REVIEW AND META-ANALYSIS INVESTIGATING THE RELATIONSHIP BETWEEN INFLAMMATION AND AMYOTROPHIC LATERAL SCLEROSIS AND FRONTOTEMPORAL SPECTRUM DISORDER**



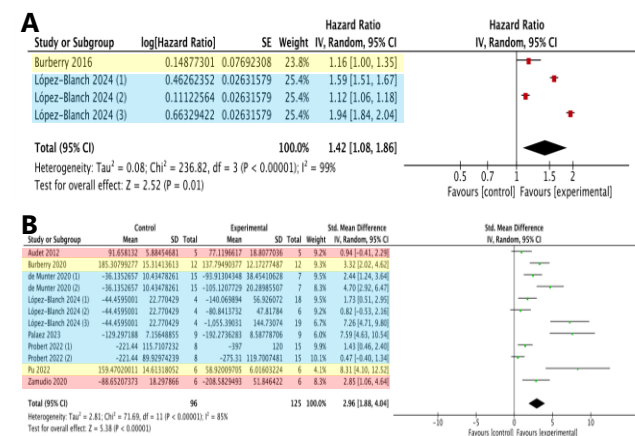
Scott Purdie<sup>1</sup>; William Daley<sup>1</sup>; Fergal Waldron<sup>1</sup>; Jenna Gregory<sup>1</sup>  
<sup>1</sup> University of Aberdeen

<https://www.youtube.com/live/fSpXH-3Xy5w?t=24111s>

**BACKGROUND:** Amyotrophic lateral sclerosis (ALS) is a rare, severely debilitating neurodegenerative disease characterised by progressive degeneration of upper and lower motor neurons. More than 50% of those affected also exhibit characteristic frontotemporal dementia (FTD) symptoms. Therefore, it is now widely recognised as a spectrum disorder encapsulating both motor and cognitive deficits, termed Amyotrophic lateral sclerosis frontotemporal spectrum disorder (ALS-FTSD). While the pathophysiology is poorly understood, a growing body of literature demonstrates the involvement of inflammation in ALS-FTSD. This systematic review and meta-analysis investigated the role of inflammation in ALS-FTSD and answer the question of whether interventions targeting inflammation will improve survival and motor outcomes through multiple biochemical pathways across the genetic and pathological spectrum of ALS-FTSD. **METHODS:** Three databases, (1) PubMed, (2) Ovid-Medline, and (3) Ovid-Embase, were searched using predetermined search terms. After Screening, 1,302 papers underwent data extraction and categorisation. These informed our choice to investigate in-depth, drug intervention studies targeting inflammation in relatively understudied preclinical genetic mouse models of ALS-FTSD. Of 53 potential papers identified, nine were meta-analysed quantitatively, yielding four interventions targeting inflammatory pathways which reported survival, and 12 interventions reporting rotarod latency to fall, a commonly reported motor phenotype. **RESULTS:** Following an overview of the current state of the research field, a specific focus of quantitative and qualitative analysis was determined. It was found that the SOD1 genetic mouse model are overrepresented and given that a published meta-analysis has already been carried out looking into therapeutic interventions on several physiological targets, including inflammation. It was decided to focus on the relatively understudied but incredibly clinically relevant TDP-43, C9orf72, and FUS mouse models for meta-analysis, which are more representative of human pathology than SOD1. Meta-analysis of the overall effect of inflammation-targeted interventions on survival in ALS-FTSD mouse models produced a hazard ratio of 1.42 (95%CI 1.08 to 1.86), with a Z-score of 2.52 (p=0.01), demonstrating inflammation-targeted interventions have a statistically significant positive effect on survival in ALS-FTSD mouse models. Meta-analysis of the overall effect of

inflammation-targeted interventions on motor function in ALS-FTSD mouse models produced a standardised mean difference of 2.96 (95%CI 1.88 to 4.04), with a Z-score of 5.38 (p<0.00001), demonstrating that inflammation-targeted interventions have a statistically significant positive effect on motor function in ALS-FTSD mouse models. **CONCLUSION:** The results of this meta-analysis demonstrate that interventions which decrease inflammation have significant positive effects on both survival and motor symptoms compared to controls in mouse ALS-FTSD model studies. This evidence demonstrates that inflammation is a crucial driver of the ALS-FTSD disease process although further investigation is required to fully characterise the nature of their mechanisms, side effects, and efficacy in human disease. Moving forward, the most challenging aspect of future research will be bridging the translation gap between preclinical studies and effective human therapeutics. This review suggests that interventions targeting inflammation are a promising avenue for future therapeutic research and development.

**Figure:** (A) Survival Hazard Ratios and (B) Motor Function Improvements with Inflammation-Targeted Therapeutics in Amyotrophic Lateral Sclerosis–Frontotemporal Spectrum Disorder Mouse Models.



**Legend:** (A) Forest plot illustrating the hazard ratio for survival between experimental (intervention) and control groups in ALS-FTSD mouse models. Data are presented using an inverse variance random-effects model with a 95% confidence interval (CI). The black diamond represents the overall effect, demonstrating a statistically significant improvement in survival for the intervention group. (B) Forest plot displaying the standardized mean difference (SMD) in rotarod fall latency time between experimental and control groups in ALS-FTSD mouse models. Data are presented using an inverse variance random-effects model with a 95% CI. The black diamond indicates a statistically significant improvement in motor function for the intervention group. Red highlights represent TDP-43 genetic models, yellow represents C9orf72 models, and blue represents FUS models.

**Key Words:** ALS, Inflammation, C9orf72, FUS Protein, Proteinopathy TDP43.

**AWARD FOR THE HIGHEST SCORE DURING THE ABSTRACT REVISION PROCESS FOR ORIGINAL RESEARCH, 3rd PLACE:****33. M.A.R.V.E.L.S. "MEDICAL STUDENTS ADVANCING RESEARCH, VISIBILITY, EDUCATION, LEADERSHIP, AND SUPPORT." A STUDENT-DRIVEN INITIATIVE**Molly Mehta<sup>1</sup>, Kayvon Yazdanbakhsh<sup>2</sup>, Elizabeth Hsu<sup>3</sup>, Olga Gomeniok<sup>1</sup>, Kayla Nenninger<sup>1</sup>, Devin P. Asher<sup>1</sup><sup>1</sup> BS, Third-year Medical Student. Rush University Medical College Chicago, USA<sup>2</sup> MPH, Third-year Medical Student. Rush University Medical College Chicago, USA<sup>3</sup> MA, Third-year Medical Student. Rush University Medical College Chicago, USA <https://www.youtube.com/live/fSpXH-3Xy5w?t=12628s>

**BACKGROUND:** Research activity is crucial for medical students' professional growth and development. However, significant barriers to accessing research opportunities remain. We introduce a student-led initiative designed to improve research accessibility and training for medical students while creating advancement opportunities for student researchers in their respective fields. **AIMS:** 1. Foster peer guidance in medicine to make research accessible to all students regardless of gender, experience, and specialty interests 2. Create student research training that integrates with medical school curricula 3. Facilitate ongoing communication regarding the current research and scholarly activities at our institution. **METHODS:** A committee of six second-year medical students and four faculty advisors established three networks to increase medical student involvement in research. The first is a Microsoft systems database containing contact, field of study, productivity, and project information of research faculty open to mentoring students aimed to facilitate meaningful collaboration between faculty seeking help with research projects and medical students eager to conduct research. The second is the creation of student researcher profiles that highlight medical students' anecdotal experiences, advice, and examples of successful

efforts to find faculty mentors, projects, and meaningful research in their specialty of interest. These student researchers serve as ambassadors in connecting medical students to ongoing research opportunities. The third is a series of student-led mentorship sessions that aim to build research skills, address knowledge gaps, and promote collaboration. **RESULTS:** The implementation of our initiative led to the expansion of our collaborating partners across the university by at least 70 personnel through their roles in events, ambassadorship, technological application creations, and mentorship sessions within the 10 months of creation. We have collected data from 30 researchers across 6 departments and identified over 45 available projects for students to contribute to. We have created public profiles of 20 student researchers ranging from first-year medical students to fourth-year students representing 13 different areas of medicine. Three mentorship events have been hosted thus far, with plans for monthly sessions. The pilot event supported first-year medical students in conducting independent summer research projects by discussing how to write a proposal, conduct a literature search, collect data, and analyze resources. Based on the input, future sessions have been scheduled to target material that falls short within our curriculum. **CONCLUSION:** This initiative promotes a philosophy of academic engagement driven by student leaders to empower peers to connect with research opportunities that align with their career aspirations; with our goal of embodying the depth of being a student leader and advocating for medical student research, we are providing the tools necessary for success. Its need is further driven by the increasingly demanding nature of research within residency applications and the need for expanded knowledge beyond clinical practices. It also offers innovative solutions to enhance the research activity of any academic institution that collaborates with student researchers. By encouraging proactive efforts, effective communication of opportunities, and fostering collaboration early, our initiative addresses the obstacles medical students encounter in becoming proficient researchers.

**Key Words:** Medical Student, Research Access, Initiative, Mentorship.

**AWARD FOR BEST RESEARCH PRESENTATION AT THE WCMSR ORIGINAL RESEARCH BASED ON JUDGE SCORES, 3RD PLACE**

**34. PSYCHIATRIC OUTCOMES IN PATIENTS WITH TRIGEMINAL NEURALGIA TREATED WITH ANTICONVULSANTS WITH OR WITHOUT ANTIDEPRESSANTS: A RETROSPECTIVE COHORT STUDY USING TRINETX**

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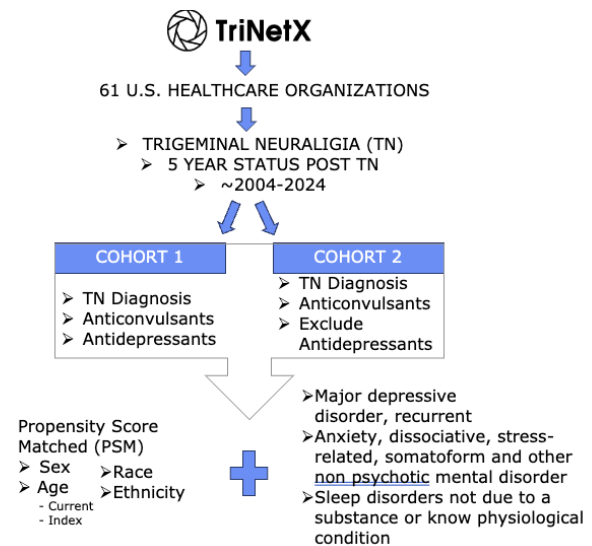


<https://www.youtube.com/live/fSpXH-3Xy5w?t=1835s>

**BACKGROUND:** Trigeminal Neuralgia (TN) presents as intense, spastic craniofacial pain that arises from a variety of causes including trigeminal nerve root compression, disruption in channel conductance, or idiopathic reasons. The chronicity and intensity of the pain leads to psychological co-morbidities including depression and anxiety. Because there is no cure for TN, treatment includes interventions that manage symptoms. **METHODS:** The data for this study was obtained from TriNetX, a multi-national collaborative health network spanning over 116 million patient records in the U.S. The data is de-identified, continuously updated, and provides a variety of data points including labs, diagnoses, medications, procedures, and demographics. IRB approval was not required. Data was queried using ICD-10 codes and NLM classification. All patients included in the study were diagnosed with Trigeminal Neuralgia (ICD-10 CM: G50). The study population was sorted into two cohorts. Cohort 1 was defined as patients diagnosed with TN (ICD-10 CM: G50) and prescribed anticonvulsants medication (VA: CN400) and antidepressant medication (ATC: N06A). Cohort 2 was defined as patients diagnosed with TN and prescribed anticonvulsants medication without antidepressant medication. The two cohorts were propensity scores matched on characteristics including sex, current age, age at index, race, and ethnicity. The psychiatric outcomes that were assessed were a diagnosis of 'major depressive disorder, recurrent (ICD-10 CM:F33)', 'Anxiety, dissociative, stress-related, somatoform and other non-psychotic mental disorders (ICD-10 CM:F40-F48)', and 'sleep disorders not due to a substance or known physiological condition (ICD-10 CM:F51).' **RESULTS:** After a 1:1 Propensity Score Match, each cohort comprised 21,252 patients. Post-matching, both cohorts showed a balanced profile: mean age of 60 years, 70% female representation, 71% non-Hispanic or Latino, and

70% white. Results indicate that patients with TN taking anticonvulsants and antidepressants had a higher risk and odds for development of depression (8.218 RR, 8.601 OR), anxiety (2.788 RR, 3.152 OR), and sleep disorder (4.45 RR, 4.568 OR) than their counterparts taking only anticonvulsants. Similarly, patients with TN taking both anticonvulsants and antidepressants demonstrated a markedly higher hazard ratio in depression (8.038 HR), anxiety (2.943 HR), and sleep disorder (4.231 HR) development compared to their counterparts only taking anticonvulsant. However, log-rank analysis did not show a statistical significance of time to development of depression (p=0.546), anxiety (p=0.259), and sleep disorder(p=0.101) between the two cohorts. **CONCLUSION:** Our findings align with current literature on the reciprocal relationship between pain and psychiatric symptoms. In TN, anticonvulsants are often prescribed to address pain, while antidepressants are prescribed to address psychiatric side effects of the chronic craniofacial pain. However, interaction between antidepressants and anticonvulsants are complicated and may influence the pharmacokinetics and pharmacodynamics of each other.

**Figure:** Selection Criteria for Retrospective Cohort Study.



**Key Words:** Trigeminal neuralgia, chronic pain, antidepressant drugs, anticonvulsant drugs.

### 35. THE EFFECT OF LATERALITY ON SQUAMOUS CELL CARCINOMA SIZE AND MOHS MICROGRAPHIC SURGICAL CHARACTERISTICS

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<sup>1</sup> Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, USA.

 <https://www.youtube.com/live/fSpXH-3Xy5w?t=23172s>

**BACKGROUND:** Mohs Micrographic Surgery (MMS) is a minimally invasive technique designed to treat skin cancers in cosmetically sensitive areas. MMS involves the sequential removal of horizontal layers of the tumor, which are processed in real-time to determine if the margins are cancer-free. As it relates to the development of tumors, certain activities and lifestyles may render patients susceptible to uneven distributions of sun exposure favoring specific lateralities of skin lesions. **METHODS:** To determine if there were any differences in laterality in patients with squamous cell carcinomas (SCCs) undergoing MMS, a retrospective chart review was conducted. This analysis included 255 patients with SCCs confirmed by biopsy who had undergone MMS at a single academic center. We evaluated the anatomical location of the tumor, preoperative tumor size, postoperative wound size, and number of layers removed during surgery. We then computed the average and standard deviation values for left- versus right-sided SCC tumors for the above

parameters. Subsequently, we computed a two-tailed T-test to determine if there was a statistically significant difference. **RESULTS:** Of the 255 patients analyzed, 121 had right-sided SCCs and 134 had left-sided SCCs. The means for the preoperative tumor size for the right versus left SCC tumors were 1.73 cm<sup>3</sup> versus 1.79 cm<sup>3</sup>, respectively (standard deviation of 1.56 versus 2.83 cm<sup>3</sup>, respectively). The means for the layers removed for the right versus left SCC tumors were 1.69 versus 1.61 layers, respectively (standard deviation of 0.72 versus 0.69, respectively). The means for the postoperative wound size for the right versus left SCC tumors were 3.44 cm<sup>3</sup> versus 3.63 cm<sup>3</sup>, respectively (standard deviation of 2.92 versus 4.98 cm<sup>3</sup>, respectively). The p-values were all above 0.1 for left versus right SCC comparing these three metrics. **CONCLUSION:** Despite the slight leftward preponderance of the SCC cases, there was no statistical difference in preoperative tumor size, postoperative wound size, or number of layers removed during surgery. Therefore, differences in occupational or activity-based lateral sun exposure did not appear to have a significant effect on SCC tumor size laterality in this patient cohort. The increase in left-sided cases could be due to leftward sun exposure or could be due to normal statistical variation. Further research may analyze a larger patient cohort to better quantify the prevalence of left-sided tumors.

**Key Words:** Mohs micrographic surgery, Squamous cell carcinoma, Lifestyle.

### 36. DENGUE: NEUROLOGICAL MANIFESTATIONS, CASE SERIES IN A TERTIARY HOSPITAL IN CENTRAL COLOMBIA

Erika Angarita Ramirez<sup>1</sup>

<sup>1</sup>Estudiante de medicina

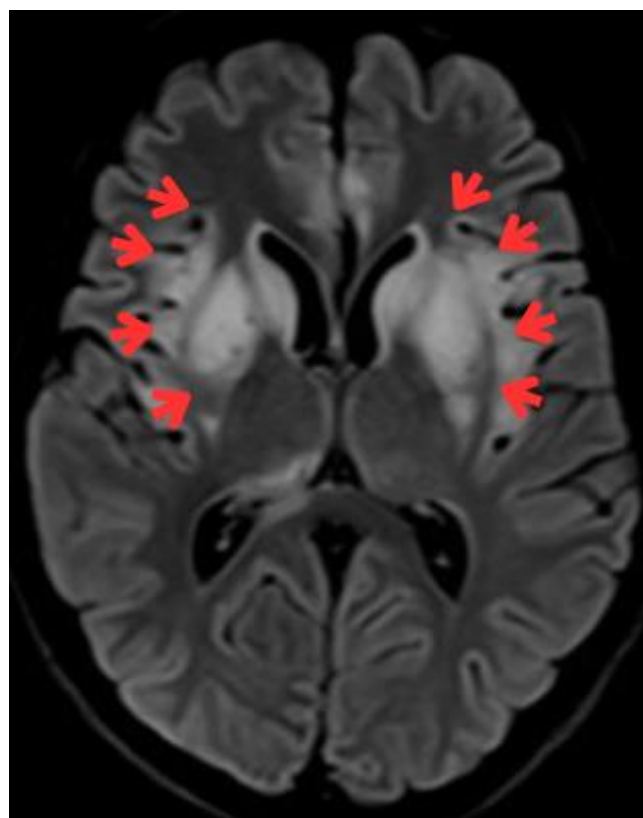
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#### ABSTRACT.

Dengue virus infection, an arbovirus endemic to South America, represents an increasing public health concern due to its ability to produce a wide spectrum of clinical manifestations, including neurological complications stemming from its high genetic diversity and neurotropic potential. Despite the growing evidence linking dengue with these neurological complications, gaps remain in understanding the pathogenic mechanisms, risk factors, and optimal management of these patients. Therefore, this case series report aims to describe the clinical characteristics, management, and outcomes of patients with dengue who developed complications such as encephalopathy and encephalitis due to this virus, thus contributing to a broader understanding of this clinical entity and improving prevention and management strategies. **CASE 1:** A 23-year-old male presented to the emergency department with febrile symptoms, dizziness, abdominal pain, hematemesis, diarrhea, and seizures. Dengue with encephalitis and intracranial hemorrhage was suspected. The patient was administered mechanical ventilation, deep sedation, and anticonvulsants. Tests revealed severe thrombocytopenia and signs of dengue. A CT scan ruled out hemorrhage, and dengue encephalitis was diagnosed. Treatment was adjusted, and the patient was extubated with neurological improvement before discharge. **CASE 2:** An 83-year-old male with significant medical history presented with fever, asthenia, headache, and severe thrombocytopenia. The diagnosis was severe dengue with decompensated heart failure. Despite platelet transfusion and ICU management, the patient developed status epilepticus and a subdural hematoma on CT. He was treated with anticonvulsants and, after stabilization, was transferred to inpatient care with a long-term management plan. **CASE 3:** An 18-year-old male was admitted with progressive headache, fever, and episodes of vomiting and seizures. CT showed cerebral edema, and CSF indicated non-herpetic viral encephalitis. After discontinuing antibiotics and continuing with acyclovir, dengue encephalitis was confirmed. Despite a positive clinical evolution, seizures persisted. Additional studies showed brain damage secondary to hypoxia, and the patient was discharged with recommendations and follow-up. **CONCLUSION:** The cases emphasize the critical need to consider dengue as a trigger for severe neurological complications, underscoring the importance of timely clinical evaluation and management to improve patient outcomes. Dengue's impact on both the central and peripheral nervous systems

highlights its relevance as a differential diagnosis in patients with acute neurological alterations, particularly in endemic areas. A multidisciplinary approach is essential in managing these complications, while ongoing surveillance, public awareness, and the potential for an effective vaccine offer hope for early intervention and reduced morbidity and mortality.

**Figure:** Contrast-Enhanced Magnetic Resonance Imaging Demonstrating Bilateral Nucleobasal Hyperintensities with Involvement of the Insular, Frontal Cortex, and Thalamus in a Case of Dengue Encephalitis.



**Legend:** The red arrows highlight areas of hyperintensity indicating inflammation and edema, which are consistent with dengue encephalitis. These findings include bilateral nucleobasal regions and additional involvement of the insular cortex, frontal cortex, and thalamus.

**Key Words:** Dengue; Neurology; Tropical; Encephalopathy; Encephalitis; *Aedes aegypti*.

AWARD FOR BEST CASE REPORT PRESENTATION AT THE  
WCMSR BASED ON JUDGE SCORES, 2nd PLACE

### 37. VERTIBRAL ARTERY DISSECTION SECONDARY TO MALIGNANT HYPERTENSION PRECIPITATING A POSTERIOR CIRCULATION STROKE

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Sanwal Singh Mehta<sup>1</sup>.

<sup>1</sup> Emory University

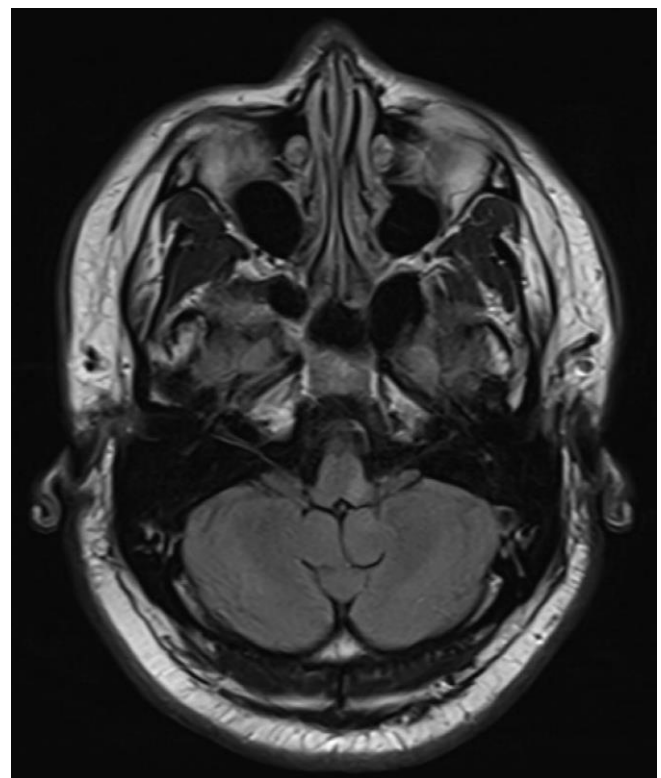


<https://www.youtube.com/live/fSpXH-3Xy5w?t=10790s>

**Background:** Diagnosing posterior circulation strokes is challenging due to non-focal symptoms and their overlap with anterior circulation ischemia. Common presentations include lateral medullary syndrome (Wallenberg) and cerebellar infarctions, with symptoms like nystagmus, truncal ataxia, tongue deviation, internuclear ophthalmoplegia, and contralateral pain and temperature impairment. These strokes are often missed on NCCT head scans. High clinical suspicion and evolving neurological signs should prompt a CT angiogram of the head and neck, though MR angiography remains the gold standard for confirming vertebral artery dissection. **Case:** A 35-year-old male with a history of hypertension, chronic kidney disease, pre-diabetes, left ventricular hypertrophy, and previous left Bell's palsy presented with sudden left facial paralysis, dizziness, blurred vision, nausea, vomiting, and a blood pressure of 217/141 mmHg. In the emergency room, his vitals included a pulse of 110 bpm, temperature of 36.6 °C, respiratory rate of 23/min, and a BMI of 47.5 kg/m<sup>2</sup>. Examination revealed bilateral nystagmus, ongoing cranial nerve VII deficits, slurred speech, and left upper limb ataxia. A stroke alert was triggered, and an initial non-contrast head CT was negative. Given an NIH Stroke Scale score of 3 and persistent symptoms, a CT angiogram was performed which showed occlusion of the left vertebral artery in the distal V3 and V4 segments, while the basilar artery remained patent with right-dominant circulation. MRI confirmed a left lateral medullary stroke. Management included placing a nasogastric tube, initiating dual antiplatelet therapy (Aspirin 75 mg and Clopidogrel 75 mg), and administering antihypertensives (Hydralazine, Lisinopril-Hydrochlorothiazide, Metoprolol, and Amlodipine). The patient was discharged three days later with instructions

to continue dual antiplatelet therapy for 90 days. **Conclusion:** Malignant hypertension can trigger vertebral artery dissection, leading to a posterior circulation stroke, which has an ambiguous clinical presentation and is often missed on a non-contrast head CT. If clinical symptoms and exam findings suggest this condition, a CT angiogram of the head and neck should be performed, with MRI and MR angiography used for confirmation. Treatment decisions are complicated by the choice between anticoagulants and antiplatelets with antiplatelets being preferred due to their safety profile.

**Figure.** MRI showing Left Vertebral Artery Dissection.



**Key Words:** Posterior Circulation Stroke, Vertebral Artery Dissection, Malignant Hypertension, Lateral Medullary Syndrome, CT Angiogram, Dual Antiplatelet Therapy, Stroke Diagnosis.

**AWARD FOR BEST CASE REPORT PRESENTATION AT THE WCMSR BASED ON JUDGE SCORES, 1st PLACE****38. FOX – FORDYCE DISEASE: A CASE REPORT**Monika Rimdeikaite<sup>1</sup>, Tadas Raudonis<sup>2</sup>, Gintare Kazbaraite<sup>2</sup><sup>1</sup> Sixth-year Medical Student. Vilnius University Faculty of Medicine, Vilnius, Lithuania<sup>2</sup> MD. Vilnius university, Faculty of Medicine, Clinic of Infectious Diseases and Dermatovenerology, Vilnius, Lithuania <https://www.youtube.com/live/fSpXH-3Xy5w?t=11315s>

**Background:** Fox-Fordyce disease (FFD), also referred to as apocrine miliaria, is a rare inflammatory condition, that mainly affects the apocrine sweat glands. The disease mainly manifests with intensely pruritic papules, with the itching intensifying during sweating, stress, and exercise. Although more predominant in the axillary region, other areas, such as the lips, perineum, sternum and anogenital region can also be affected. The disorder is more often observed in females and due to its uneven distribution between the genders, it is thought that the hormonal component is of utmost importance in the development of FFD. Moreover, the symptoms initially present at the onset of puberty, starting at around 13 years of age, are mostly present around the time of menstruation, and often resolve at the time of pregnancy or after menopause. The treatment of FFD is often intricate, requiring multiple treatment modalities to achieve optimal results. The options mainly rely on reducing inflammation and sweating, as well as inhibiting sweat duct occlusion. Inflammation-reducing approaches, such as topical calcineurin inhibitors, clindamycin and corticosteroids are considered first-line options;

however, retinoids may also be used to reduce follicular occlusion. We present a case of FFD, that affects both the scalp and the axillary areas. **Case:** A 23-year-old patient was referred to a dermatologist due to an itching scalp and hair loss, presenting for 6 months. The patient was otherwise healthy and did not have a family history of similar diseases. Examination of the patient revealed erythematous scalp skin and excoriations. Scalp follicle hyperkeratosis, as well as perifollicular oedema in the axillary region, was observed via digital dermoscopy. Upon further consideration, a decision to perform a punch biopsy was reached. The biopsy revealed hair follicle epidermal hyperkeratosis and parakeratosis, as well as a vacuolization, spongiosis, lymphocytic and histiocytic infiltration of the basal epidermal layer of the follicular infundibulum. Furthermore, histiocyte accumulation was observed within the deep segment of the sweat duct; overall, indicating that the changes are similar to those seen in FFD. The patient was prescribed 5 percent minoxidil solution for scalp and axillary areas, 10 mg of peroral isotretinoin, as well as 1 percent pimecrolimus cream for the pruritic regions of the scalp. Upon further inspection, after 3 months, there has been a slight improvement in the patient's condition. While there has been an improvement in pruritus, erythema persists in both the scalp and axillary regions.

**Conclusion:** To summarize, the management of FFD is intricate, often requiring the exploration of various different treatment modalities, in order to find the most effective approach. We present a case of axillary and scalp FFD, that was managed with topical calcineurin inhibitors and peroral retinoids

**Key Words:** Fox-Fordyce disease, Apocrine Miliaria, Fox-Fordyce Syndrome.



### 39. CHURG-STRAUSS SYNDROME IN AN HIV-POSITIVE SUDANESE PATIENT: A CHALLENGING TREATMENT CASE

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**BACKGROUND:** Churg-Strauss syndrome (CSS), also known as eosinophilic granulomatosis with polyangiitis (EGPA), is a rare form of systemic vasculitis characterized by asthma, eosinophilia, and multi-organ involvement. The syndrome primarily affects the lungs, heart, and kidneys. Managing CSS becomes even more challenging in patients with additional comorbidities like chronic kidney disease (CKD) and HIV, particularly when considering the risks associated with immunosuppressive therapy, which is standard for CSS but can exacerbate the immunosuppressed state in HIV-positive individuals. **Case:** A 34-year-old Sudanese male with no history of smoking, except for occasional sheesha use (2-3 times per week for one year), presented with multiple symptoms. The patient had been diagnosed with hypertension four months prior and CKD five months before this presentation, for which he was undergoing regular hemodialysis. He also had a history of asthma diagnosed five months earlier, managed with salbutamol and symbicort nebulizers. His hypertension was controlled with candesartan 16 mg and nifedipine 24 mg daily. The patient reported shortness of breath, particularly exacerbated by exercise, dialysis, and hot weather, which was relieved by Atrovent. He also had a two-week history of fever, primarily during dialysis, along with headache, rigors, a single episode of vomiting, recurrent epistaxis, and weight loss of 5 kg over five months.

Additionally, he experienced numbness in both upper and lower limbs, generalized body swelling, and altered bowel habits. **THE CASE:** The patient appeared unwell, distressed, and dyspneic. Physical examination revealed raised jugular venous pressure, bilateral wheezing, fine crackles in the chest, mild lower limb edema, flat feet, and lower limb paresthesia. There was no evidence of pallor, jaundice, purpura, lymphadenopathy, skin nodules, or hemoptysis. Initial laboratory investigations showed anemia, electrolyte imbalances, and significant renal impairment. A chest X-ray revealed interstitial infiltrates with prominent bronchovascular markings. Follow-up tests showed improved hemoglobin levels but persistent renal impairment. Urinalysis revealed red blood cells (RBCs) and pus cells, while malaria was ruled out. **Diagnosis:** Based on the clinical presentation, including the history of asthma, eosinophilia, and multi-organ involvement, the patient was diagnosed with Churg-Strauss syndrome (CSS). Additionally, the patient developed septicemia secondary to an infected pericath catheter, and subsequent HIV testing returned positive. The presence of HIV further complicated the management of CSS, as the standard immunosuppressive therapy posed a risk of worsening the patient's immunocompromised state. The patient received emergency dialysis and broad-spectrum antibiotics, including meropenem and vancomycin, to treat the septicemia. The infected pericath catheter was replaced with an arteriovenous catheter to reduce the risk of recurrent infections. Despite the diagnosis of CSS, immunosuppressive therapy was deferred due to the patient's HIV status, given the increased risk of opportunistic infections. **CONCLUSION:** This case illustrates the complexities of managing Churg-Strauss syndrome (CSS) in a patient with multiple comorbidities, including CKD and HIV. The coexistence of these conditions presents significant therapeutic challenges. This case underscores the necessity of a multidisciplinary approach and tailored treatment plans to optimize outcomes in patients with complex, overlapping medical conditions.

**Key Words:** Churg-Strauss Syndrome, HIV, Eosinophilic granulomatosis with polyangiitis, Chronic kidney disease, Systemic vasculitis.

**AWARD FOR BEST RESEARCH PRESENTATION AT THE WCMSR ORIGINAL RESEARCH BASED ON JUDGE SCORES, 1ST PLACE****40. PAIN SEVERITY RATINGS AMONG PATIENTS WITH COMORBID CHRONIC PAIN AND PTSD**Lily Charron<sup>1</sup>, Eduardo Espiridion<sup>2</sup><sup>1</sup> Second-year Medical Student, Drexel University College of Medicine at Tower Health, West Reading, USA.<sup>2</sup> MD, Drexel University College of Medicine at Tower Health, West Reading, USA. <https://www.youtube.com/live/fSpXH-3Xy5w?t=21703s>

**BACKGROUND:** Posttraumatic stress disorder (PTSD) is a psychiatric disorder that may occur after experiencing or witnessing a traumatic event. PTSD is associated with many physiological symptoms, including sleep disturbances and hyperarousal. One understudied symptom in PTSD patients is chronic pain (CP). Acute pain can lead to CP when it persists beyond adaptation. The interconnection between stress and pain has been well-established in fields of neuroscience

and psychology. Though the association is well-documented in literature, there are still gaps in our understanding of the nature of this clinical relationship. **METHODS:** In the current study, we use a retrospective cohort of patients with PTSD and CP through a database of numerous healthcare organizations called TriNetX. We compare the reported pain severity rating between three groups: those with PTSD and no CP, those with CP and no PTSD, and those with comorbid PTSD and CP. The summary data was compared using a one-way analysis of variance. **RESULTS:** The average reported pain severity was significantly different between all three groups. The patients with comorbid PTSD and CP reported the highest average pain severity, followed by patients with only CP and then patients with only PTSD. **CONCLUSION:** Our results demonstrate a need to further investigate the complex relationship between PTSD and CP. That the patients with both disorders reported a higher average pain severity indicates that pain management and psychiatric care should become a focus for this population.

**Key Words:** Stress Disorders, Post-Traumatic; Chronic Pain; Pain Measurement; Stress Disorders, Traumatic.

#### 41. ASSESSMENT OF DOCTOR'S SATISFACTION WITH GOVERNMENTAL HOSPITAL AFTER THE WAR, IN PORT SUDAN, 2024

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**BACKGROUND:** After the war in Sudan, and especially after the occupation of the city of Madani, a large number of people were displaced to the city of Port Sudan, including doctors. There was great pressure on government hospitals in Port Sudan and therefore doctors. This research shows the extent to which doctors were affected by the changes after the war and are they satisfied with these changes. **METHOD:** This is a descriptive cross-sectional study to develop and validate a self-administered doctor's satisfaction survey. This study was conducted based on a literature review from published literature from google scholar, PubMed, journals and for finding relevant information from WHO and UNICEF websites. The data have been collected through a designed questionnaire via Google form consists of 9 multiple choices questions, 4 questions measured on a 5-point Likert scale and 2 short answer questions. The questionnaire has been spread to doctors in governmental hospitals in Port Sudan. The data collected analyzed statistically by google form. **RESULTS:** The outcome from our analyzed data and findings that female to male ratio is (~1:1), most of them from (20-30) and (30-40) age groups represented in (70.8%) and (29.2%) respectively. (37.5%) are Refugees from other states and Khartoum represents (36.4%) from the total. The majority of them in the beginning of their career, "houseman" representing (41.7%) followed by (33.3%) are registrar, then general practitioners by (12.5%) and lastly specialists by (8.3%). Only (8.3%) have 6-9 years' experience in hospital, 3-6 years' experience by

(12.5%), 1-3 years' experience by (29.2%) and less than 1-year experience represents the most by 45.8%. Satisfaction of Doctors [From 1-5 (1 represents the lowest and 5 is highest)] (62.5%) give scale (1/5) the lowest to salary, (33.4%) are ok with work time, (41.6%) are not satisfied from the work experience (give scale 2/5), (70.8%) are not satisfied from the learning methods, only (1.6%) are satisfied from hospital environment, no (5/5) response in hospital cleaning, (75%) agreed on there is low safety equipment's, only (20.8%) are satisfied from the work place, (58.3%) are not satisfied from work schedule and (50%) are not satisfied from working hours (given scale 2/5 and 1/5), (62.5%) give (1/5) and not satisfied at all from hospital sanitation, for work over load (91.6%) are suffering, (37.5%) are satisfied from doctor patient relationship and (75%) are satisfied from hospital colleagues. Overall satisfaction is (16.6%). • Training experience beneficiary out of 5 (5 represents the highest and 1 represents the lowest), (4.2%) give scale (5/5), while (41.7%) give (3/5) and (29.2%) give (4/5) and (1/5 - 2/5) scales represents (12.5%) for both. • (66.7%) agreed with that doctors stick to federal ministry of health guidelines in treatment while (29.2%) are disagree. Unfortunately (27.3%) see that current low can prevent their rights on the other hand (31.8%) they Don't see that and (40.9%) are not sure. **CONCLUSION:** The Doctors are not satisfied, and they aspire to increase salaries, provide all supplies and medicines for emergency cases, provide facilities and equipment, take care of the hospital environment, continuous training for doctors, and create a good work environment while preserving all their rights, because all of this will develop health and raise the health care system.

**Key Words:** Satisfaction, Doctors and hospital.

## 42. MEDICAL UNIVERSITY STUDENTS LIFESTYLE AND VALUE OF HEALTH

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**BACKGROUND:** The risk of cardiovascular diseases (CVD) can be reduced by non-pharmacological approaches. Lifestyle medicine involves evidence-based interventions in physical activity, nutrition, sleep, and stress management. The feasibility of studying CVD risk factors (RFs) in groups of medical students with the development of programmes for the modification of the RFs can improve the health and qualification of medical staff in the future. **Aim:** To evaluate the CVD risk factors in students of different courses at Grodno State Medical University (GrSMU). **METHODS:** An online survey was conducted of 82, 1st and 5th year GrSMU students with their own consent. The questionnaire was based on the 2021 ESC Guidelines on cardiovascular disease prevention. All respondents were divided into two groups: 1 (5th year) and 2 (1st year). The "STATISTICA 10.0" computer programme was applied for investigation (Mann-Whitney test and Pearson  $\chi^2$ ). The p-value less than 0.05 was statistically noteworthy. **RESULTS.** The prevalence of the main modifiable RFs in the groups is in Table 1. No significant differences were found in the BMI, target WC in the 2 groups; 7.3% had a non-target BMI and 11% non-target WC; 14.6% of females and 1.2% of males are not aware of CVD heredity ( $p = 0.03$ ). 83% of both groups ate "fast-food" (burgers, fries, pizza) 2 times a week or daily, the number of 1st year students was 58.5%, and the number of 5th year students – 24.4% ( $p = 0.005$ ). It was found that 3.7% of students (all respondents were in 5th year) did not consume "fast-food" at all ( $p = 0.03$ ). 60 out of 82 people ate salty food 2 times a week or daily (73.4%). No differences were found depending on age (course) in the consumption of sweet-drinks. 68% of the surveyed groups of 1 and 5 courses did not drink sweet-drinks or drank them less than 1-2 times a week; on the contrary, 6.1% of respondents drank them daily. 90% of all the students did not eat fish at all; 9.8% ate fish 1-2 times a week. Daily consumption of

vegetables/fruits was indicated by 13.4% of students of both courses; 1.2% did not consume vegetables/fruits at all (5th year); 25.6% of students of both courses noted consumption less than 1-2 times per week; no differences were found depending on gender between groups. **CONCLUSIONS.** Medical students have an unhealthy diet: more than 20% of both groups consume "fast-food" everyday, and 90% do not eat fish at all or less than 1-2 times a week; only 13.4% of respondents indicate daily consumption of vegetables and fruits, of which majority are girls.

**Table:** Cardiovascular Risk Factors and Dietary Habits Among 1st and 5th Year Medical Students at Grodno State Medical University.

Risk factors	Group 1, (n=31)	Group 2, (n=51)
Age, years	21,5±0,56	17,9±0,57*
Body Mass Index (BMI), kg/m <sup>2</sup>	22,2 [19,7-23,9]	21,06 [19,5-23,05]
Waist Circumference (WC), cm	72,2 [64,0-77,0]	69,9 [62,0-74,0]
Salty food, weekly/daily, (n,%)	13(15.9%)/ 7 (8,5%)	30(36.8%)/ 10 (12,2%)
"Fast-food", weekly/daily, (n,%)	11(13.4%)/ 9 (11%)	26 (31.7%)/ 22 (26,8%)*
Fish 1-2 times/weekly or more often, (n,%)	3(3,7%)	5(6,1%)
Sweet-drinks, daily, (n,%)	4(4,9%)	1(1,2%)
Fruits/Vegetables, 300 (300) g/day, (n,%)	5(6,1%)	6(7,3%)

**Legend:** : \* –  $p < 0,05$ , significant differences between groups.

**Key Words:** Cardiovascular Risk Factors, medical students, Dietary approach.

#### 43. REAL WORLD EXPERIENCE OF BEDAQUILINE-BASED ANTI-TUBERCULAR REGIME IN MULTI-DRUG RESISTANT TUBERCULOSIS

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<sup>1</sup>Dept of pulmonology

**BACKGROUND:** Tuberculosis is an important public healthcare problem in our country. Drug-resistant Tuberculosis is like a smoldering fire that if not controlled will flare up to an uncontrolled inferno. The conventional therapy for multidrug-resistant TB is associated with multiple issues like prolonged duration and various side effects. Newer anti-tubercular drugs are available but there is a lack of real-world evidence of their use. Bedaquiline is a novel drug belonging to the diarylquinolone group. It has a bactericidal action and works by inhibiting the mycobacterial ATP synthase enzyme limiting the provision of ATP to mycobacterium. **METHODS:** This was an observational study done at a tertiary respiratory care center on MDR TB patients to study the efficacy and adverse event profile of Bedaquiline in a clinical setting by

examining the culture and smear conversion time. **RESULTS:** 30 patients with MDR TB were included in the study. 28 patients had Kat G mutation of Isoniazid while 2 patients had InH A resistance. The second line probe assay showed additional resistance to fluoroquinolones in 27 patients and 2 patients had resistance to aminoglycosides. Twenty-one patients were on the first line while 9 patients were on second-line ATT drugs at the time of presentation to our center. The median smear conversion time was 4 weeks while the median culture conversion time was 10 weeks. The average weight gain was 9 kilograms. All patients recovered with a 100 % success rate. There were no life-threatening adverse effects noted, while two patients developed prolonged QTc on ECG. However, the QTc interval was less than 500 ms, and thus bedaquiline was not discontinued. **CONCLUSION:** Our study aims to highlight the use of Bedaquiline-based anti-tubercular therapy in drug-resistant tuberculosis.

**Key Words:** Bedaquiline, multidrug-resistant tuberculosis, anti-tubercular therapy, culture conversion, adverse effects.

**44. UTILIZING LINER ARTIFICIAL INTELLIGENCE IMAGE RECOGNITION FOR IDENTIFYING SKIN DISORDERS IN SKIN OF COLOR**

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**BACKGROUND:** Advances in artificial intelligence (AI) with machine learning have allowed for the use of this technology to identify the contents of images and answer questions about the contents of the images. Technologies, such as artificial intelligence, offer a potential avenue to improve medical care to marginalized communities. In this study we attempted to see how well the Liner AI model was able to detect ten dermatological diseases from Skin of Color images of the diseases. **METHODS:** To test the model, two to three images each from the Dermatology Atlas for Skin of Color for the following diseases: vitiligo, mycosis fungoides, tinea, lentiginos, acne vulgaris, rosacea, hidradenitis suppurativa, basal cell carcinoma, squamous cell carcinoma, and melanoma were input into the AI model and the AI model was prompted with the question: "What is the differential diagnosis?" **RESULTS:** Liner generated variable length lists for the images and these differential diagnoses lists were analyzed. Liner's accuracy of correctly diagnosing the correct diagnosis as the first diagnosis in the generated differential diagnosis list was only 34.6%, but the accuracy of the model to generate a differential diagnosis list that contained the correct diagnosis was 53.8%. **CONCLUSION:** Liner demonstrated limited diagnostic accuracy, critically missing all the

basal cell carcinoma cases, demonstrating present diagnostic limitations for potential future clinical use. Further, research could look to compare Liner against other patient demographics to see if the limitations were limited to the Skin of Color cases tested and to guide future development of this technology.

**Table:** Correct First Diagnosis/Differential Compared Against Images Tested.

Case	Correct 1 <sup>st</sup> Diagnosis /# of Images	Correct Differential /# of Images
Vitiligo	3/3	3/3
Mycosis Fungoides	0/2	0/2
Tinea	2/2	2/2
Lentiginos	0/3	2/3
Acne Vulgaris	1/3	1/3
Rosacea	1/2	1/2
Hidradenitis suppurativa	0/2	1/2
Basal Cell Carcinoma	0/3	0/3
Squamous Cell Carcinoma	1/3	1/3
Melanoma	1/3	3/3
<b>Average Correct</b>	<b>Overall Percentage 34.6%</b>	<b>53.8%</b>

**Key Words:** Machine learning, Dermatology, Vitiligo, Tinea, and acne vulgaris.

#### 45. IMPACT OF SODIUM FLUCTUATIONS ON PROGNOSIS IN HOSPITALIZED PATIENTS: A RETROSPECTIVE OBSERVATIONAL STUDY

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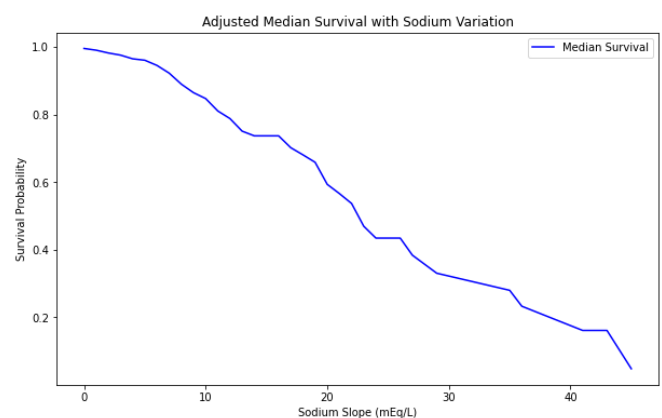
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<sup>5</sup> MD. Chairman. Internal Medicine Department, Mexicali's General Hospital (Hospital General de Mexicali), Autonomous University of Baja California, Faculty of Medicine (Universidad Autónoma de Baja California, Facultad de Medicina), Mexicali B.C., México.

**BACKGROUND:** In hospitalized patients, electrolyte alterations have a significant impact in patient outcomes particularly dysnatremias. Hyponatremia and hypernatremia are the two main sodium disturbances, which have been associated with increased morbidity and mortality. Nevertheless, the particular influence of sodium variations during hospitalization in mortality risk remains an area less studied and therefore less understood. Our study seeks to investigate the relationship between sodium fluctuations and mortality in hospitalized patients at Mexicali General Hospital, Mexico. **METHODS:** We conducted a retrospective, single-center, observational study at a secondary care hospital in Mexicali, Mexico, from January 1, 2023, to May 31, 2023. The study included adult patients with normonatremia at admission (serum sodium levels between 135-145 mmol/L), with minimum hospitalization time of 48 hours and at least two sodium measurements. Patients with chronic kidney disease, tuberculosis, or pregnancy were excluded. Dysnatremia was defined as serum sodium levels outside the 135-145 mmol/L range during hospitalization. The primary outcome was to establish a relationship between the sodium fluctuation and mortality among all the patients that were hospitalized; while secondary outcomes demographic characteristics and a multivariable analysis to assess how these variables influenced the outcome. Statistical analyses included ANOVA, Fisher's exact test, unpaired t-tests, Kaplan-Meier survival curves, and multivariate analysis using the Cox Proportional Hazard Model. **RESULTS:** We had 284 patients from which 117 (41.2%) developed dysnatremia, with the highest incidence occurring in the intensive care unit (73.3%) and internal medicine services (50.4%). A total of 58 patients

(20.4%) died during hospitalization, and among those, 36 (62.1%) had developed dysnatremia, with hypernatremia being more common. The odds ratio for mortality among dysnatremic patients was 2.7 (95% CI: 1.5-4.8,  $p=0.0009$ ). Patients who developed hyponatremia had a mean length of stay of 12.28 days compared to 9.12 days for eunatremic patients. although, mixed dysnatremia was associated with the longest hospital stay (22.33 days). Patients with greater sodium fluctuations had a higher mortality risk, with a mean sodium variation difference of 7.01 mEq/L (95% CI: 4.99-9.03,  $p<0.0001$ ) between survivors and non-survivors. Multivariate analysis revealed that age and serum creatinine at admission were significant predictors of mortality, with each year of age increasing the risk of death by 1.35% ( $p=0.027$ ) and each 0.1 mg/dL increase in creatinine raising the risk by 1.16% ( $p=0.008$ ). **CONCLUSION:** Our findings underscore the importance of monitoring and managing sodium levels in hospitalized patients. Fluctuations in serum sodium levels during hospitalization are associated with increased mortality risk, particularly greater levels than 145 mmol/l and those in intensive care and internal medicine settings. Strategies aimed at the importance of closely monitoring and managing sodium levels improve outcomes in-hospital stay. Future research should focus on developing targeted interventions to stabilize sodium levels and further explore the mechanisms linking sodium dysregulation to mortality.

**Figure:** Relationship between Sodium Variation and Probability for Survival using Cox Proportional Hazards Model, adjusted for sex, age, initial creatinine, myocardial infarction, cerebrovascular diseases, GI bleeding, acute pancreatitis and traumatic brain injury.



**Key Words:** Hyponatremia, hypernatremia, mortality, classification, sodium fluctuation, sodium variation, hospitalization.

#### 46. INVESTIGATING POTENTIAL GENDER DIFFERENCES IN CHATGPT-DIAGNOSED CLINICAL VIGNETTES

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**BACKGROUND:** The integration of artificial intelligence (AI) in medical decision-making introduces additional concerns, particularly regarding information bias within AI models such as ChatGPT, which heavily rely on training data. With gender-based disparities in diagnosis and treatment being well-documented in healthcare, there is a pressing need to evaluate the potential of AI models to perpetuate or alleviate these gender biases. **AIMS:** This study seeks to investigate gender differences in diagnostic accuracy within ChatGPT 3.5 by evaluating the accuracy and completeness of its responses to various clinical vignettes. **METHODS:** Ten medical conditions (including psychiatric, respiratory, cardiac, and cerebrovascular cases) previously reported for gender-based misdiagnoses, were selected for the study. Two identical clinical vignettes were created for each condition, with the only difference being the gender of the patient. These 20 vignettes were entered into ChatGPT 3.5 randomly by a single researcher, each accompanied by a prompt requesting the most likely explanation for the patient's symptoms and the next appropriate step in management. The responses generated by ChatGPT were evaluated for accuracy and completeness by two independent evaluators, utilizing a scale set by Johnson et al., which included a six-point Likert scale ranging from 1 (completely incorrect) to 6 (correct) for accuracy, and a three-point scale for completeness, ranging from 1 (incomplete) to 3 (comprehensive). Discrepancies were resolved through a blind consensus process. Data analysis and visualization was done using RStudio v4.3.2, with statistical significance between accuracy and completeness was determined using Spearman's R and Mann-Whitney U Tests. **RESULTS:** Among the 20 cases, six were incorrectly diagnosed, with two instances attributed to gender-based misdiagnoses. Specifically, ChatGPT misclassified ectopic pregnancy as appendicitis, and paroxysmal supraventricular tachycardia (PSVT) as a panic attack in female patients, despite indicative symptoms and prior correct diagnoses in male counterparts. Additionally, systemic lupus erythematosus (SLE) was inaccurately labeled as rheumatoid arthritis (RA) in both male and female patients. Moreover, eating disorders were misidentified, with ChatGPT failing to provide definitive diagnoses for these conditions. The overall median accuracy score was 6, (Mean = 5.5, SD = 0.6), while the median completeness score was 2.5 (Mean = 2.5, SD = 0.5). Correlation analysis indicated a non-significant relationship between accuracy and completeness (Spearman's R:  $r_s = 0.23139$ ,  $p = 0.3263$ ), although Mann-Whitney U test results suggested significant discrepancies in accuracy between correctly and incorrectly diagnosed cases ( $z$ -score = 5.39649,  $p < .00001$ ). **CONCLUSION:** While the AI's responses were generally accurate and complete, the observed misdiagnoses of conditions such as PSVT and eating disorders highlight the need for a more thorough examination of potential biases in AI-driven chatbots. The varying outcomes in the Spearman's R and Mann-Whitney U tests indicate that, although there may not be a consistent linear

relationship between accuracy and completeness, ChatGPT's performance differs significantly across scenarios, necessitating further investigation. Moreover, the small sample size of vignette may not fully capture the extent of potential biases. Despite these limitations, the findings underscore the complexity of AI in healthcare and the critical importance of continuous scrutiny and refinement of these models.

**Table:** Summary of Diagnostic Accuracy and Completeness of ChatGPT 3.5 for Gender-Based Clinical Vignettes.

Case Number*	Correct Diagnosis	Diagnosis by ChatGPT	Accuracy Score	Completeness Score
Case 1	ADHD	ADHD	6	3
Case 2	ADHD	ADHD	5	3
Case 3	Autism Spectrum Disorder	Autism Spectrum Disorder	5	3
Case 4	Autism Spectrum Disorder	Autism Spectrum Disorder	5	3
Case 5	Ectopic Pregnancy	Appendicitis	6	2
Case 6	Appendicitis	Appendicitis	6	2
Case 7	Multiple Sclerosis	Multiple Sclerosis	6	2
Case 8	Multiple Sclerosis	Multiple Sclerosis	6	2
Case 9	Chronic Obstructive Pulmonary Disease (COPD)	Chronic Obstructive Pulmonary Disease (COPD)	6	3
Case 10	Chronic Obstructive Pulmonary Disease (COPD)	Chronic Obstructive Pulmonary Disease (COPD)	6	3
Case 11	Asthma	Asthma	6	3
Case 12	Asthma	Asthma	6	2
Case 13	Transient Ischemic Attack (TIA)	Transient Ischemic Attack (TIA)	6	3
Case 14	Transient Ischemic Attack (TIA)	Transient Ischemic Attack (TIA)	6	3
Case 15	Paroxysmal Supraventricular Tachycardia (PSVT)	Panic Attack	5	2
Case 16	Paroxysmal Supraventricular Tachycardia (PSVT)	Paroxysmal Supraventricular Tachycardia (PSVT)	6	3
Case 17	Systemic Lupus Erythematosus (SLE)	Rheumatoid Arthritis	5	2
Case 18	Systemic Lupus Erythematosus (SLE)	Rheumatoid Arthritis	5	2
Case 19	Eating Disorder	No definitive diagnosis, concluded that the symptoms were due to a "combination of factors included hormonal imbalances, nutritional deficiencies, overtraining syndrome and psychological factors"	4	2
Case 20	Eating Disorder	Relative Energy Deficiency in Sport (RED-S)	5	2
Mean Score (SD)			5.55 (0.6)	2.5 (0.5)
Median Score			6	2.5
Spearman's R			$r_s = 0.23139$ , $p = 0.3263$ .	
Mann-Whitney U			$z$ -score = 5.39649, $p < 0.00001$	

**Legend:** \*Case numbers 2, 4, 5, 7, 10, 11, 14, 15, 18, 20 were clinical vignettes of female patients. Case numbers 1, 3, 6, 8, 9, 12, 13, 16, 17, 19 were clinical vignettes of male patients.

**Key Words:** Artificial intelligence, ChatGPT, Gender bias, Healthcare, Misdiagnosis.



#### 47. CRIMEAN-CONGO HEMORRHAGIC FEVER AND AUTOIMMUNITY: A GEORGIAN VIEWPOINT IMPROVED BY AWARENESS SURVEY

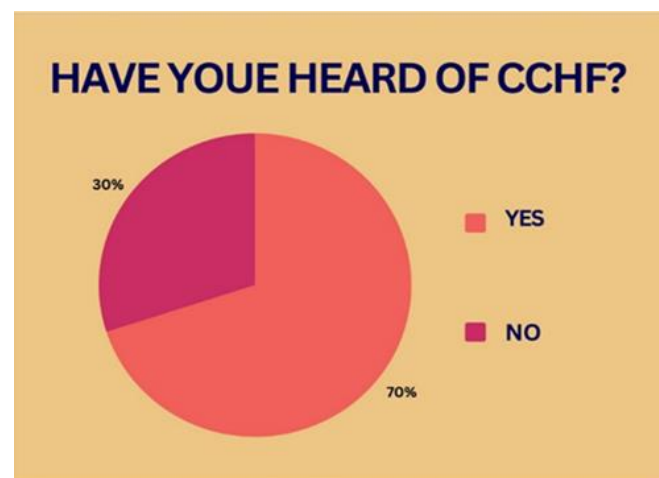
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**BACKGROUND:** Crimean Congo hemorrhagic fever (CCHF) is primarily transmitted through the Hyalomma tick a virus found in the Bunyaviridae family. The disease spreads when an individual is bitten by a tick or comes into contact, with one directly. Additionally consuming milk or being exposed to contaminated animal tissues or blood can lead to transmission. While human-to-human transmission can occur through contact with blood or bodily fluids such cases are mostly observed in settings. Around one out of every five individuals infected with the virus shows signs of illness whereas animals and ticks do not exhibit any symptoms of infection. People infected with CCHF typically experience a specific fever at the onset, which may progress rapidly into a hemorrhagic syndrome causing organ failure and potentially leading to death in severe instances. Georgia, located in the South Caucasus region shares borders with countries where CCHF transmission is prevalent. Given that, nearly half of Georgia's population engages in agriculture and resides in areas where they may be at risk, of contracting CCHF. In 2009 the National Electronic Integrated Disease Surveillance System (EIDSS) was introduced to monitor cases in Georgia. Physicians, in healthcare facilities in Georgia suspect a patient may have CCHF and report it to the Georgian National Centre for Disease Control and Public Health through EIDSS, a part of the surveillance system for reporting diseases. **METHODS:** To study, CCHF information was collected from news media and health publications between 2014 and 2023. Additionally, a cross-sectional survey was conducted to assess peoples' understanding of CCHF and autoimmunity. The survey consisted of twenty multiple-choice questions covering transmission, symptoms, prevention, and basic autoimmune concepts. The sample of 500 participants ensured representation. Descriptive statistics were utilized to analyze the data for awareness levels and common beliefs. **RESULTS:** Insights from survey responses collected from individuals in Georgia unveiled intriguing aspects of their awareness and attitudes toward autoimmunity and CCHF. While most participants (60%) were familiar with CCHF it was concerning that 40% could accurately identify the disease transmission methods. Furthermore, the survey indicated that

70% of students expressed worries regarding autoimmunity. However, there seems to be a gap between awareness and understanding of conditions as half of respondents admitted knowing, about them. The difference, in outcomes, demonstrates the impact of campaigns and awareness programs in enhancing students understanding and correcting misconceptions. It underscores the importance of public health strategies that focus on educating people about disorders alongside managing infectious diseases like CCHF. Collaboration among health authorities, schools, and community groups is crucial for bridging knowledge gaps and promoting understanding among students. **CONCLUSION:** The comprehensive examination of CCHF, in Georgia, enhanced by a study involving adults offers perspectives on existing awareness levels and misunderstandings. Closing these knowledge disparities through focused public health efforts and educational programs is crucial, for empowering individuals to safeguard themselves and their communities from autoimmune conditions.

**Figure:** Awareness of Crimean-Congo Hemorrhagic Fever (CCHF) Among Survey Participants in Georgia.



**Key Words:** Georgia (Republic), Student Awareness, Infectious Diseases, Crimean-Congo Hemorrhagic Fever, CCHF.

#### 48. ATTRIBUTES AND ATTITUDE TOWARDS CRYSTAL METHAMPHETAMINE USERS: A CROSS-SECTIONAL STUDY

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**BACKGROUND:** Crystal methamphetamine (CM) is a powerful CNS stimulant, which causes a psychological disorder known as "ice psychosis," characterised by paranoid delusions, hallucinations, and strange, violent, or aggressive behavior. Permanent structural brain damage may also occur. It was reported that negative attitudes about medical conditions can directly affect patients' health and the quality of healthcare they receive, posing a major hurdle to healthcare delivery. Not enough studies were conducted to investigate the attitude towards CM users among medical students, especially here in Sudan. **Aim:** In this study, we aim to determine the prevalence of negative attitudes towards CM users among medical students and investigate the correlation between certain attributes and that may affect their attitude.

**METHODS:** A cross-sectional study was conducted from March to July 2023 using an online questionnaire to examine the attitude of Sudanese medical students in Al-Neelain University towards CM users. The questionnaire was structured from a total of 31-items to assess other covariates including the demographics, experience with addiction, and previous CM use. **RESULTS:** The study included 300 students, 191(63.7%) of them are females. Age median 21.1 years (IQR=2.3). 153(51%) were in preclinical levels. Most students 274(91.3%) were single. 79(26.3%) of students had monthly income  $\geq$  100,000 SDG. Majority of students 252(84%) resided with family, in urban areas 266(88.6%). Students with GPA  $\geq$  4.1 were 137(45.7%). 12(4%) of students smoke. 48(16%) of students have a close one who uses CM. Only 5(1.7%) of students reported prior or current use of CM. Of those who use CM, only 2(0.7%) said they faced discrimination due to CM use. Students' attitudes mean score was  $47.4 \pm 6.8$ . Most students held a negative attitude against people who use CM, with majority reluctant to accept them. There was significant difference in attitude scores between females (Md= 47, n=191) and males (Md=49, n=109), p value = 0.002. Furthermore, those who used CM had a median of 38 in comparison to those who never used CM (Md=48), p value = 0.01. Indicating that males and non-users showed higher degrees of stigmatization towards people who use CM.

**CONCLUSION:** Majority of students had negative attitude toward CM users with males and non-CM users representing most of the stigmatizing group. Therefore, stigma reduction initiatives and community educational programmes are required especially among higher stigmatizing group. Further in-depth studies are required at a national level.

**Table:** Frequencies and Percentages of Participants Demographic Variables.

Characteristic	M	SD
Age	21.1	2.3
Attitudes towards people who use crystal methamphetamine	47.4	6.8
	n	%
<b>Negative Attitudes</b>		
I won't associate with people who use ice if I can help it	99	33
I avoid people who use ice whenever possible	206	68.7
Use of ice is just plain wrong	198	66
People who use ice are dangerous	197	65.7
A person using ice could recover if they just stopped using	57	19
If I had a problem with ice, I would not tell anyone	43	14.3
Use of ice is immoral	198	66
Using ice is a sign of personal weakness	187	62.3
People who use ice should be locked up to protect society	141	47
<b>Positive Attitudes</b>		
People should feel sympathetic and understanding of people who use ice	127	42.3
People who use ice are mistreated in our society	152	50.7
People who use ice should be accepted completely into our society	39	13
People who use ice have a perfect right to their lifestyle, if that's the way they want to live	22	7.3
The use of ice is merely a different kind of lifestyle that should not be condemned	41	13.7

**Key Words:** Medical students, Methamphetamine, Attitude.

#### 49. COMPARING TREATMENT RECOMMENDATIONS FOR TEN DERMATOLOGICAL CONDITIONS USING CHATGPT, CLAUDE, AND PI AI MODELS

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**BACKGROUND:** Artificial Intelligence (AI) is being increasingly utilized in healthcare and offers a potential alternative for gathering medical information in the future. The gold standard for many physicians on guiding their approach to medical management has been UpToDate and PubMed. In this review we attempted to see how well three AI models (ChatGPT, Pi, and Claude) could perform in generating first line treatment recommendations when compared against UpToDate. **METHODS:** To test the performance of these AI models, medical scenarios describing physical exam findings and patient histories, were sourced from the clinician generated medical education platform for ten dermatological diseases and inputted into the models. The models were then prompt with the query: "What is the first line treatment?" **RESULTS:** The results were tabulated, and it was found that Claude could successfully generated first line treatment recommendations that corresponded to UpToDate for all ten of the diseases tested with the other models successfully predicting nine of the ten correct treatment regimes. However, ChatGPT and Pi mistakenly diagnosed the squamous cell carcinoma vignette as actinic keratosis and provided inaccurate treatment advice. **CONCLUSION:** These AI models demonstrate that future developments in artificial intelligence may offer a free alternative to UpToDate as

improvements in management recommendations are made as artificial intelligence models are further refined. However, the benefits of future utilization must be weighed against the risks of overreliance on this type of technology, especially if proper validation of information does not take place.

**Table:** Comparison of Correct Treatment Recommendations for Ten Dermatological Conditions Across ChatGPT, Pi, and Claude AI Models.

Case	ChatGPT	Pi	Claude
Acne Vulgaris	Correct	Correct	Correct
Contact Dermatitis	Correct	Correct	Correct
Actinic Keratosis	Correct	Correct	Correct
Squamous Cell Carcinoma	Incorrect	Incorrect	Correct
Basal Cell Carcinoma	Correct	Correct	Correct
Cellulitis	Correct	Correct	Correct
Pemphigus Vulgaris	Correct	Correct	Correct
Seborrheic dermatitis	Correct	Correct	Correct
Rosacea	Correct	Correct	Correct
Androgenetic Alopecia	Correct	Correct	Correct
<b>Correct</b>	<b>9</b>	<b>9</b>	<b>10</b>

**Key Words:** Machine learning, Dermatology, Acne vulgaris, Keratosis, Carcinoma, Cellulitis.

## 50. SHIFTS IN CALIFORNIA STATEWIDE CELLULITIS HOSPITALISATION RATES WERE FOUND BETWEEN 2017 TO 2022 USING A RETROSPECTIVE ANALYSIS

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**BACKGROUND:** Cellulitis accounts for \$3.7 billion in ambulatory healthcare costs. We wanted to determine statewide trends for inpatient cellulitis cases as well as anatomic distribution of cases.

**METHODS** A retrospective analysis was performed using California's Department of Health Care Access and Information's "Hospital Inpatient - Diagnosis, Procedure, and External Cause Codes. Codes were extracted relevant to cellulitis, analyzed in excel to compile data

on temporal trends and summing anatomical distribution over the timespan of 2017-2022. **RESULTS:** We found 986,655 cases of inpatient cellulitis over the time frame with a nadir during 2020 (151,100 cases) and a peak at 2019 (175,360 cases). The anatomic location with the highest prevalence of cellulitis was the lower limbs (295,913 in right lower limbs, 295,162 cases in left lower limbs over the timeframe). **CONCLUSION:** The shifts in patient cases may be due to changes in access to care during the COVID-19 pandemic that could inform future care during future pandemics. Additionally, the anatomical locational distribution favoring the lower limbs could be explained by preponderance of wound generation in this region. Future research could evaluate factors such as wound severity in a similar patient cohort in relation to anatomic location as well as analyzing epidemiological factors that could better explain the temporal trends observed around 2020.

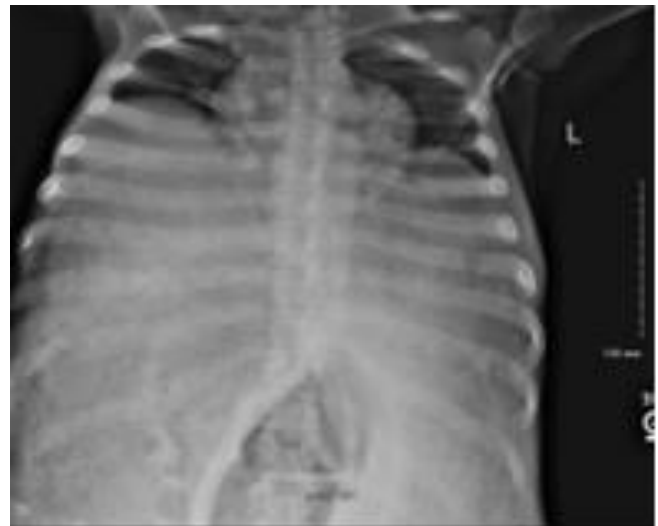
**Key Words:** Cellulitis, Dermatology, Wound, Epidemiology.

**51. CASE REPORT: ADULT HIRSCHSPRUNG DISEASE**Kevin Wortman II<sup>1</sup>, Brooklyn Hornbuckle<sup>2</sup>, Morgan Robinson<sup>2</sup><sup>1</sup> East Alabama Health - Opelika, AL, USA<sup>2</sup> Edward via College of Osteopathic Medicine - Auburn, AL, USA

**BACKGROUND:** Hirschsprung's disease (HD) remains the most common condition to cause low functional intestinal obstruction in children. It is caused by the failed migration of colonic ganglion cells during gestation. The aganglionic sections of the colon are subsequently unable to relax, halting digestive consumption within the gastrointestinal tract resulting in prolonged constipation symptoms. Although it is primarily diagnosed in infants and children, there are cases of diagnosis not being made until adulthood. **CASE:** A 19-year-old African American male with a history of asthma, chronic constipation, and medication noncompliance that presented to a local free-standing emergency department with constipation and severe abdominal distension. Per the patient's mother, AB was also previously evaluated by a gastroenterologist at a children's hospital and no findings that they are aware of were discovered. His vitals on presentation were temperature 36.8°C, heart rate 98, blood pressure 130/99, respiratory rate 32, oxygen saturation of 95% on room air. On physical exam he had diminished breath sounds at his expected lung bases and his abdomen measured 112 cm at its largest circumference. At the emergency department a KUB was obtained and showed functional obstruction diffuse fecal loading throughout the colon. AB was subsequently admitted to the hospital. He was started on oral polyethylene glycol, dulcolax, and senokot with minimal response. A pulsated irrigation evacuation (PIE) procedure was performed on 2/10 with significant stool debulking, but his abdominal circumference remained unchanged. He was started on polyethylene glycol via NG tube and underwent manual disimpaction on 2/11 with large volume stool evacuation. His team of physicians decided that he needed a colon biopsy to confirm the suspicion of Hirschsprung's. After discussion with the patient, he deferred colonoscopy and biopsy until outpatient. After continued improvement in his stool output and abdominal circumference to roughly 65 cm, he was transitioned to oral polyethylene glycol and ultimately discharged on polyethylene glycol with follow up appointment scheduled to establish care with a primary care provider and a local gastroenterologist. The patient underwent an outpatient colon/rectum biopsy approximately one month after discharge. The biopsy was sent to pathology and was reported as follows: "Sections from the rectal biopsy specimen show

well-oriented fragments of anorectal mucosa consistent with segments of squamous mucosa with adjacent colonic type columnar mucosa. Findings are consistent with sampling at the anal transitional zone. There is no significant inflammatory infiltrate. No ganglion cells are identified. Occasional lymphoid aggregates are noted. These findings are consistent with Hirschsprung's disease". **CONCLUSION:** Hirschsprung's induced constipation can lead to severe consequences and should be promptly treated. Since there are no guidelines for severe constipation in HD patients, we recommend a stepwise approach starting with osmotic laxatives and stool softeners in conjunction with manual disimpaction. For refractory cases we recommend PIE, in areas where this procedure is available. Although this stepwise approach to severe constipation avoidance of life-threatening complications, definitive treatment is still colectomy once the bowel is evacuated; if the patient is agreeable to an invasive procedure.

**Figures:** Radiograph of the patient read as the following. the lungs are hypo-aerated. There is severe diffuse fecal loading throughout the colon. There is mild bowel distention in the mid-abdomen, likely from functional obstruction. No obvious free air or pneumatosis.



**Key Words:** Hirschsprung's disease, chronic constipation, slow transit time, acute severe constipation, adult Hirschsprung's disease.

## 52. EVALUATING THE QUALITY OF SCHOOL HEALTH SERVICES IN SECONDARY SCHOOLS WITHIN GBARAIN/EKPETIAMA CLAN, BAYELSA STATE, NIGERIA

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**BACKGROUND:** The Gbarain/Ekpetiama clan is located in Bayelsa State, Nigeria, within the Niger Delta region, predominantly inhabited by the Ijaw people. School health services are essential for promoting the well-being of students and ensuring they are physically and mentally prepared to learn. However, the availability and quality of these services in secondary schools can vary significantly, especially in rural and underserved communities. This study aims to assess the presence and effectiveness of school health services in secondary schools within the Gbarain/Ekpetiama clan to understand how well these services support the health and education of students. **METHODS:** A descriptive cross-sectional study was conducted among 380 secondary school students and teachers in Gbarain/Ekpetiama clan, Bayelsa State. A multistage sampling technique was employed to select participants from various communities, schools, and classes. Data collection involved questionnaires and interviews with students, teachers, and principals. Ethical approval was obtained from the Ethics and Research Committee of the College of Health Sciences, Niger Delta University. Verbal consent was obtained from community leaders, school authorities, and teachers, while parental consent forms were provided for students. Data were analyzed using SPSS version 22.0, with results

presented in frequency tables and summarized using proportions. Statistical significance was assessed using p-values, with a threshold of  $p < 0.05$  considered significant. Key areas of analysis included the presence of essential health services, availability of first aid and sick bays, and the frequency of health inspections and screenings. **RESULTS:** The study found that 77.1% of the schools lacked formal school health services, and only 16.8% had essential drugs in their first aid boxes. A significant majority (95.3%) of schools did not have a functional sickbay, and 89.2% lacked a regular supply of drugs. Additionally, 94.2% of schools did not have a first aid box, and 95.8% had no emergency transport. (See table 1). Health education and routine medical screenings were also inadequate, with 88.7% of schools not conducting any screening activities. There were notable differences between public and private schools, with private schools generally having slightly better health services than public schools. **CONCLUSION:** The assessment reveals that the provision of school health services in the secondary schools of Gbarain/Ekpetiama clan is significantly lacking, especially in public schools. These inadequacies pose a risk to the health and academic performance of students. To achieve better health outcomes and educational success, it is crucial to enhance the availability and quality of health services in schools. Recommendations include assigning medical officers to oversee school health, implementing pre-admission medical screenings, and ensuring regular health education and services in all schools.

**Key Words:** School Health Services, Health Education, sickbay, Ijaw people.

**53. COMMUNITY APPROACHES TO COMBAT DENGUE TRANSMISSION IN MORELIA, MICHOACAN**Ezequiel Sandoval<sup>1</sup>, Damaris Guzmán<sup>1</sup>, Bruno Michel Muñiz<sup>1</sup><sup>1</sup> Universidad Vasco de Quiroga, Mexico

**BACKGROUND:** Around the world, it has been shown that many countries know a diversity of community strategies techniques approaches to combat Dengue Transmission. Due to a lack of awareness and use of dengue prevention measures, there is no indication of people in Mexico experiencing a decline in the virus's ability to spread.

**METHODS:** Data were collected through surveys conducted on Google Forms, where participants were asked about their personal physical, chemical, and household protection measures. The study sample and population selection are 'non-probabilistic or targeted. It included people aged 18 years and older who live in the Primo Tapia Poniente neighborhood of Morelia, Michoacán, Mexico. Exclusion criteria were applied, such as the death of the patient, refusal to give informed consent, no longer willing to participate, lack of communication or, moving.

**RESULTS:** *Prevalence of the use of household protection tools* Comparing knowledge with usage in Table 1 shows that 69% use three or more tools, and 20% use two. According to the surveys, 69% of the people knew at least one household protection tool against dengue and accepted the fumigation service. In comparison, 30% of the people knew at least one household protection tool against dengue but did not accept the fumigation service. *Prevalence of actions or use of personal protection tools*

From the whole sample, 28% use two or more personal protection tools, followed by mosquito repellent (17%), but 55% do not use it. 30% of participants do not use any personal protection tools.

**CONCLUSION:** Increasing dengue prevention and having a population more equipped to manage the dengue season is crucial, as this research has shown that the community uses more informed preventive measures.

**Table:** Community Knowledge and Acceptance of Fumigation Services and Household Protection Tools Against Dengue in Morelia, Michoacán.

How many household protection tools do you know?	Yes (n, %)	No (n, %)	Total
House and yard cleaning	7 (2%)	2 (0.6%)	9
Use of abate	3 (0.9%)	1 (0.3%)	4
Mosquito Net	2 (0.6%)	1 (0.3%)	3
Insecticides or larvicides	2 (0.6%)	2 (0.6%)	4
Removal of stagnant water	0 (0%)	2 (0.6%)	2
Fumigation	2 (0.6%)	5 (1.5%)	7
2 answers	46 (14.6%)	19 (6%)	65
3 or more answers	155 (49.5%)	63 (20.2%)	218
<b>Total</b>	<b>217 (69.6%)</b>	<b>95 (30.4%)</b>	<b>312</b>

**Legend:** Two answers refer to selecting 2 individual options (House and yard cleaning, Use of abate, Mosquito nets, Insecticides or larvicides, Elimination of stagnant water, Fumigation). Three or more answers refer to selecting 3 to 6 individual options (House and yard cleaning, Use of abate, Insecticides or larvicides, Elimination of stagnant water, Fumigation).

**Key Words:** Dengue virus, personal protective equipment, prevention

**54. ATYPICAL VULVAR MASS: METASTATIC VULVAR CROHN'S DISEASE IN A YOUNG FEMALE WITH RHEUMATOID ARTHRITIS: A CASE REPORT**

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**BACKGROUND:** Crohn's disease (CD) is an inflammatory bowel disease that usually manifests in any part of the gastrointestinal tract from the oral cavity to the anus, with well-known extraintestinal presentations such as uveitis, erythema nodosum and arthritis. Rarely, it can also present with metastatic vulvar lesions, a conundrum for the gynecologist and gastroenterologist, owing to its similarity with other granulomatous and dermatological conditions like hidradenitis suppurativa, cellulitis and secondary abscess, making it a diagnostic dilemma. **CASE:** We present the case of a 24-years-old female, married with bilateral swelling in the vulvar region, insidious in onset, associated with pain, watery discharge, red discolouration of the surrounding skin and mild itching since 5 years that worsened in the past 6 months. She also had pain in multiple joints bilaterally, associated with early morning stiffness since childhood that worsened in the past 2 years and a history of hypothyroidism since 6 years followed by irregular menses since 4 years. She consulted a private clinic and the prescribed medications provided relief.

However, her symptoms recurred a year later along with additional presentations of fissures and skin tags that gradually increased in severity. On visiting another hospital, a diagnosis of vulvar CD was confirmed on biopsy. She was started on methotrexate, oral steroids and azathioprine; which she adhered to for 6 months with failure to follow up thereafter. It eventually flared up for which she was referred to our hospital, where a thorough evaluation was done by several relevant departments. Positive biopsy findings showing non-caseating granulomas with giant cells along with positive ANA (Anti-nuclear antibody) and anti-CCP antibody (Anti-cyclic citrullinated peptide) correlated with the clinical symptoms confirmed the diagnosis of CD and rheumatoid arthritis respectively. The debulking procedure was done considering the severity of the lesion and the failure of the medications. Post-operative pathological evaluation of the procured tissue confirmed the pre-operative diagnosis.

**CONCLUSION:** This case underscores the difficulties encountered during the diagnosis of vulvar CD, especially in the absence of any gastrointestinal symptoms and signs on colonoscopy. It also emphasizes the importance of considering the differential of CD when faced with multiple vulvar symptoms. Undoubtedly, biopsy remains the cornerstone of diagnosis; and early diagnosis and treatment significantly is quintessential to improve the quality of life.

**Key Words:** Crohn Disease; Inflammatory Bowel Disease; Vulva; Rheumatology; Gynecology.



## 55. ANALYZING THE RELATIONSHIP BETWEEN PREVENTATIVE HEALTHCARE UTILIZATION AND HIGHER EDUCATION LEVELS IN UNDERSERVED LOS ANGELES COMMUNITIES

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**BACKGROUND:** Despite significant advancements in scientific research to reduce the risk of various illnesses and health conditions, the underutilization of preventive healthcare poses a significant barrier to enhancing public health outcomes.<sup>1</sup> A 2020 study found that only 8% of Americans undergo routine preventive care screenings<sup>2</sup>; racial minorities such as Hispanic Americans are even less likely to receive preventive health services due to socioeconomic disparities.<sup>3</sup> Individuals with higher educational attainment are more likely to receive routine health checkups<sup>4</sup>, and have higher vaccination rates.<sup>5</sup> To illustrate these dynamics, this case focuses on Maywood and Bell, two adjacent cities with large patient populations from immigrant and refugee backgrounds. Educational attainment rates, which represent the percentage of residents with at least a bachelor's degree level of education, are notably lower in Maywood and Bell (8.7% and 8.8%) compared to California as a whole (37.0%). The percentage of residents without health coverage in Maywood and Bell (18.0% and 13.9%, respectively) are higher than California's average of 6.5%.<sup>6,7</sup> **THE CASE:** This case was conducted by The International Healthcare Organization (IHO), a 501(c)-3 nonprofit composed of doctors, nurses, medical students, non-profit advisors, and healthcare administrators.<sup>8</sup> IHO team members conducted a convenience sample of adult community members from Maywood and Bell during a mobile community health clinic event. 120 adult respondents were given a survey to complete anonymously. All participants provided informed consent. The survey contained questions pertaining to respondents' educational attainment and whether they had received various medical examinations during the year. Respondents completed the survey by selecting one of the following options, depending on the question: yes/no; numerical response; age range; frequency range; 5-point Likert scale. Table 1 reveals substantial disparities across three main areas: vaccinations, routine medical examinations, and female-specific cancer screenings. Rates of vaccination uptake differed greatly between college-educated and non-college-educated groups: 68.8% of college-educated individuals receiving a COVID-19 vaccination, whereas only 56.8% of their non-college-educated counterparts indicated the same. Disparities were also evident in dental and blood examinations, participants with a college education were over 10% more likely to have had at least one blood or dental examination within the year. Finally, a sizable gap was observed in the category of female-specific screenings. Only 11.1% of college-educated women reported receiving both a pap smear and mammogram test, whereas none of

the non-college-educated women respondents reported receiving either screening. **CONCLUSION:** The findings of the survey, as well as results from other literature, underscore how educational attainment not only influences preventative care usage but could also potentially be the driving factor behind it. Tertiary education teaches individuals the importance of preventive health practices, leading to higher health status and overall health awareness,<sup>9</sup> but also leads to significantly higher risk perception in comparison to their less educated counterparts. Current literature and this study emphasize the need for targeted interventions to ensure equitable healthcare access and utilization. Education greatly enhances public health outcomes<sup>10</sup>, suggesting that future interventions should prioritize addressing educational disparities.

**Table:** Comparison of Preventative Healthcare Utilization Between College-Educated and Non-College-Educated Individuals in Underserved Los Angeles Communities.

Preventive Services	College Graduate	
	Yes	No
Physical examination		
Yes	24	56
No	8	32
Blood test		
Yes	22	60
No	10	28
Flu vaccination		
Yes	20	42
No	12	46
COVID-19 booster shot		
Yes	22	50
No	10	38
Dental examination		
Yes	26	50
No	6	38
Pap smear*		
Yes	2	0
No	16	44
Mammogram**		
Yes	1	0
No	11	36

**Legend:** \*Sample includes only females age 25 or older. \*\*Sample includes only females age 45 or older.

**Key Words:** Health disparities, Education, Immigrant, Healthcare.

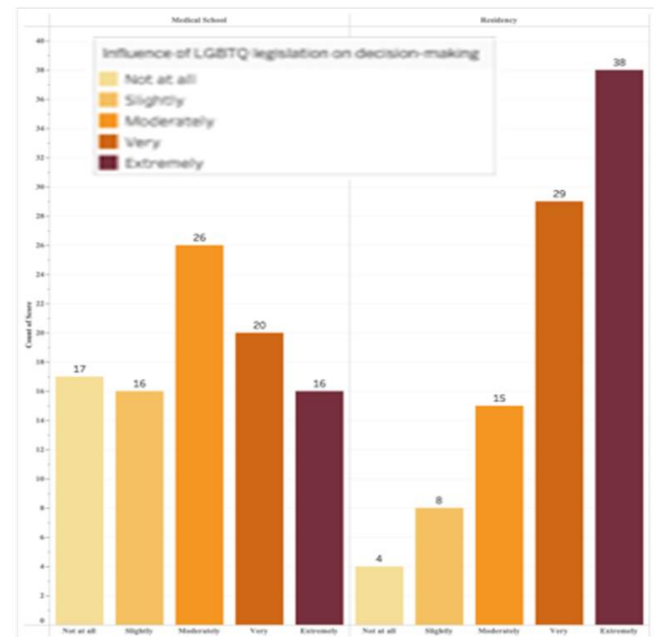
**56. THE IMPACTS OF STATE-SPECIFIC LGBTQ POLICIES ON CAREER PLANNING AMONG MEDICAL STUDENTS IN THE UNITED STATES**

Katrina Hayes <sup>1</sup>

<sup>1</sup> University of Miami

**BACKGROUND:** According to the American Civil Liberties Union, a record 510 anti-LGBTQ bills were filed across the United States in 2023.<sup>1</sup> These bills impact a wide range of LGBTQ rights. Amid these trends in legislation, many LGBTQ medical students face amplified stressors when deciding where to train and eventually practice. This study aims to understand how state-specific LGBTQ legislation and students' perceptions of safety shape their decision-making while pursuing careers in medicine. **METHODS:** Between March and April of 2024, medical students across the United States who self-identify as LGBTQ were surveyed via university-affiliated LGBTQ student organizations. The survey assessed students' perceived level of safety and comfort with LGBTQ status among different social networks. Students also rated their knowledge of anti-LGBTQ legislation and classified the degree to which this legislation impacts their choice of residency program. **RESULTS:** Survey data was collected from 96 medical students from 14 different states. Participants reported feeling least comfortable/safe with hospital staff and most comfortable/safe with friends. Respondents reported that states' LGBTQ legislation had a greater influence on their residency program applications in comparison to their prior medical school applications ( $p < 0.001$ , CI [-1.15 to -0.68]). LGBTQ-identifying medical students perceived California and New York as safer compared to Florida and Texas ( $\chi^2 = 330.57$ ,  $df = 4$ ,  $p < 0.001$ ). **CONCLUSION:** Amidst the multitude of factors influencing medical students' decisions regarding residency programs, the level of LGBTQ acceptance within states emerges as a crucial consideration. With looming physician shortages, creating inclusive training environments is vital, given the profound influence of LGBTQ climates on career choices.

**Figure:** Level of Impact of LGBTQ Legislation on Training Program Location.



**Legend:** Description: LGBTQ medical students reported the influence of state-specific LGBTQ legislation on their location preferences when applying to medical schools retrospectively, as well as their future residency program applications.

**Key Words:** LGBTQ, Career choice, Continuing medical education, Population Law, Internship and residency.

## 57. SNAKE ENVENOMATION: A RARE CAUSE OF HYPOPITUITARISM - A CASE REPORT

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**BACKGROUND:** Snake bites are frequent in a developing country like India, especially rural areas. Mostly they are minor and never reported but sometimes they may be serious and fatal. Occasionally, Viper bites induced hemorrhagic complications land the patient into hypovolemic shock, leading to Sheehan's syndrome-like condition and causing panhypopituitarism. The onset of features of panhypopituitarism may be delayed by a few years. **THE CASE:** With this background, we are presenting a case of a 27-year-old male who presented to us in April 2022 with a history of reduced growth of facial hair, which was normal a few years back, along with associated

symptoms of polyuria, polydipsia, polyphagia, and cold intolerance. Most importantly, he gave a history of a viper bite in 2017 for which he was hospitalized in a state of hypovolemic shock. At the time of presentation to us, his BP was 96/64 mm Hg, and pulse was 70/min. His investigations showed low T3, T4, TSH, low testosterone, reduced levels of Sr FSH, Sr LH, and Sr Prolactin. His 24-hour urine volume was 2.8 L, his testicular volume was low, and MRI Brain showed empty Sella. He was managed conservatively with oral hydrocortisone, levothyroxine tablets, and injectable testosterone. He has been under our follow-up for the last 2 years and has responded well to the treatment both symptomatically and in terms of blood parameters.

**CONCLUSION:** Hypopituitarism is a rare complication of snake bite. Therefore, it is important to undergo relevant hormonal tests in persons who have a history of snake bite in the past.

**Key Words:** Snake Envenomation, Hypopituitarism, Viper Bite.

58. **ASSESSING NEUROSURGERY RESIDENCY PROGRAM RANKINGS: A NOVEL APPROACH WITH RESIDENCY AFFILIATED ACADEMIC NEUROSURGEONS (RAAN)**

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**BACKGROUND:** When medical students create their residency rank order lists, they consider a myriad of factors such as program reputation, research opportunities, and geographical location; however, it is unclear whether some factors such as the likelihood of acquiring an academic position, are adequately reflected in established ranking systems. The Doximity Reputation Navigator (DRN) reputation rank methodology is dubious. In this study, we aim to investigate the relationship between ranks of neurosurgical residency program ranks in DRN and Blue Ridge Institute for Medical Research (BRIMR) rankings, to identify potential underlying relationships between academic neurosurgeons and ranks. The primary objective of this study was to assess the relationship between established neurosurgical residency program rankings, specifically those from DRN and BRIMR, and the academic contributions of affiliated neurosurgeons. This was done by developing a new ranking system based on the proportion of neurosurgeons from these programs who hold academic positions. **METHODS:** We conducted a cross-sectional analysis of neurosurgical residency programs accredited by the Accreditation Council for Graduate Medical Education (ACGME). We included 1623 faculty members from these programs, focusing on those with publicly available education and training histories in our analysis. The newly developed ranking

system, Residency Affiliated Academic Neurosurgeons (RAAN), was created to rank programs based on the proportion of neurosurgeons in academia. This study involved the development of Residency Affiliated Academic neurosurgeons ranking system, which was then compared to the existing DRN and BRIMR rankings. The correlations between these rankings and academic positions of neurosurgeons were analyzed to identify any significant relationships. **RESULTS:** We find that in our system, the program ranking had a significant correlation with Doximity Residency Navigator or Blue Ridge Institute for Medical Research ( $R=0.73$ ,  $p<0.0001$  and  $R=0.45$ ,  $p<0.001$ , respectively). The median rank of faculty across Residency Affiliated Academic Neurosurgeons, Doximity Residency Navigator, and Blue Ridge Institute for Medical Research correlated significantly ( $R=0.83$ ,  $p < 0.0001$ ,  $R=0.75$ ,  $p < 0.0001$ , and  $R=0.69$ ,  $p < 0.0001$ ). Notably, the percentage of legacy faculty (defined as faculty who are appointed at the same location as residency training) had a significant association with Residency Affiliated Academic Neurosurgeons and Doximity Residency Navigator ( $R=-0.33$ ,  $p<0.05$  and  $R=-0.38$ ,  $p<0.001$ , respectively). **CONCLUSION:** In conclusion, this study developed a novel ranking system based on the output of academic neurosurgeons affiliated with residency programs. Regardless of this ranking system, medical students should utilize a combination of established objective ranking systems that fit their needs to ensure they match at a well-suited accredited neurosurgery residency program.

**Key Words:** Internship and Residency; Neurosurgery; Students, Medical; Education, Medical, Graduate; Accreditation.

### 59. UN-SEEN BURDEN: LIFESTYLE FACTORS IMPACT ON MENTAL HEALTH AMONG KHARTOUM UNIVERSITY MEDICAL STUDENTS

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**BACKGROUND:** Mental illnesses are prevalent among youths globally, with the World Health Organization reporting 800,000 suicide deaths annually, making it the second leading cause of death worldwide. This study aimed to evaluate the mental health of medical students at Khartoum University and explore the relationship between lifestyle factors and their mental status. **METHODS:** This descriptive, cross-sectional, institution-based study was conducted at the University of Khartoum, Faculty of Medicine. A sample of 322 medical students was selected using multistage stratified random sampling. Data were collected via a self-administered online form incorporating the General Health Questionnaire (GHQ-12) and the Depression, Anxiety and Stress Scale (DASS-21). Statistical analyses included chi-square testing and correlation analysis to examine the relationships between lifestyle factors and mental health. Results: The study found that 43.8% of the respondents experienced depression,

55.9% anxiety, and 48.5% stress. Severe stress was significantly associated with female gender ( $p = 0.02$ ) and smoking ( $p = 0.004$ ). Sleep disturbances were significantly linked to severe depression, stress, and anxiety ( $p < 0.01$ ). Additionally, inadequate sleep was significantly associated with severe depression ( $p = 0.007$ ) and stress ( $p = 0.031$ ). Consuming a daily diet rich in fruits, vegetables, whole grain bread, and drinking water was associated with lower stress levels ( $p = 0.015$  and  $p = 0.018$ , respectively). Overall, 22.6% of the students were found to be in psychological distress. A significant positive correlation was observed between GHQ-12 and DASS-21 scores for depression ( $r = 0.589$ ;  $p < 0.001$ ), anxiety ( $r = 0.538$ ;  $p < 0.001$ ), and stress ( $r = 0.718$ ;  $p < 0.001$ ). **CONCLUSIONS:** The study concluded that depression, anxiety, and stress levels are notably high among medical students at Khartoum University. Factors such as female gender, smoking, and poor sleep quality are associated with increased stress levels, while healthy dietary habits correlate with reduced stress. These findings highlight the need for establishing counseling services in medical schools, integrating mental health into the medical curriculum, and empowering medical students through support from academic staff.

**Key Words:** Medical students, Mental health, Lifestyle, Sudan.

**60. KNOWLEDGE, ATTITUDES, AND BARRIERS TOWARD MEDICAL RESEARCH AMONG AL-NEELAIN MEDICAL STUDENTS, SUDAN**

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**BACKGROUND:** Early involvement of medical students in research during school years has led to excellence in the research field and clinical practice during their careers. Previous studies try to evaluate knowledge and attitudes toward medical research in medical students in many countries. Limited studies are conducted in Sudan. In This study, we aimed to assess knowledge to, and attitudes towards and identify barriers to medical research among medical students at Al-neelain University. **METHODS:** The cross-sectional study was conducted among medical students of Al-Neelain University from October 21 2023, to January 2, 2024. This survey involved medical students in 4th and 5th academic years. An online self-administered questionnaire was used to assess knowledge related to and attitude towards and identify barriers to medical research. SPSS version 26 was used to analyze the data. **RESULTS:** The study included 139 students. 95(68.3%) of them were female. 61 (43.9%) of them were final-year students. The mean age was (22.95±1.1). Most students were single 135 (97.1%). Students showed an average attitude score of mean (3±1.2) (out of 5). Meanwhile, a low knowledge score is revealed with (45.9%) the percentage of correct answers. Younger students had better knowledge (spearman's rho = -0.228, p=0.006). Students with higher GPAs in their previous year had better knowledge (spearman's rho = 0.293, p=0.000). The following barriers were the most agreed upon by students: lack of time due to being overburden with educational activities (64.8% agreed) lack of knowledge and skills (64.1% agreed), lack of facilities (60.4% agreed), lack of research

funding (56.1% agreed). **CONCLUSION:** This study showed a low level of knowledge and an average attitude toward medical research. Many perceived barriers were also addressed. Curriculum change and raising awareness about the importance of research among students are mandatory to ensure the improvement of the quality and quantity of research among medical students.

**Table:** Medical Students' Knowledge and Attitudes Toward Medical Research: Perception of Science and Research-Related Barriers at Al-Neelain University, Sudan.

ITEMS	Disagree* n(%)	Undecided n(%)	Agree** n(%)	Score Mean±SD
1- Science has prolonged human life	38(27.3)	20(14.4)	81(58.3)	3.40±1.3
2- There would be no progress of humankind without the progress of science.	32(23)	13(9.4)	94(67.6)	3.63±1.3
3- Valid discoveries are impossible without scientifically sound research.	30(21.6)	25(18)	84(60.5)	3.52±1.2
4- Science gives us a better understanding of the world	22(15.8)	8(5.8)	109(78.4)	4.05±1.2
5-Scientific approach facilitates better understanding of problems	19(13.7)	17(12.2)	103(74.1)	3.86±1.1
6 - Use of scientific methodology is the basis of medical progress	22(15.8)	18(12.9)	99(71.2)	3.73±1.1
7 - Every physician has to be well acquainted with the scientific methodology.	31(22.3)	20(14.4)	88(63.3)	3.55±1.2
8 - The knowledge of scientific methodology is essential for obtaining accurate and objective data.	22(15.8)	18(12.9)	99(71.2)	3.71±1.1
9 - A fact can be established only by a scientific approach.	45(32.3)	35(25.2)	59(42.5)	3.12±1.2
10 - Scientists are creative and interesting people.	28(20.1)	25(18)	86(61.8)	3.57±1.1
11 - Physicians believing only in science are small-minded.	59(42.4)	41(29.5)	39(28.1)	2.80±1.1
12 - The scientific approach limits a physician's choices.	64(46)	43(30.9)	32(23)	2.7±1.1
13 - Science is the main cause of the ecological catastrophe we face.	68(48.9)	40(28.8)	31(22.3)	2.6±1.1
14 - If science continues in the same direction it has so far, it will lead to the destruction of humankind.	78(56.1)	34(24.5)	27(19.5)	2.5±1.1
15 - The scientific approach lacks humanity.	71(51.1)	39(28.1)	29(20.9)	2.6±1.1
16 - Scientific methods impose unnecessary rules.	62(44.6)	47(33.8)	30(21.6)	2.7±1.1
17 - Scientific methodology only makes the implementation of medical research more difficult.	82(59)	27(19.4)	30(21.6)	2.5±1.1
18 - Negative effects of science exceed positive ones	87(62.6)	29(20.9)	23(16.6)	2.3±1.1
19 - If there were no science, we would lead less troubled and healthier lives.	91(65.5)	22(15.8)	26(18.7)	2.2±1.2
20 - The scientific way of thinking is dull and boring.	75(57.6)	31(22.3)	28(20.1)	2.5±1.2

**Key Words:** Medical research; Medical student; Knowledge; Attitudes.

## 61. EVALUATING THE EFFICACY AND SAFETY OF TOLVAPTAN IN AMERICAN PATIENTS WITH AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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**BACKGROUND:** Autosomal dominant polycystic kidney disease (ADPKD) causes end-stage renal disease (ESRD) and a decline in the estimated glomerular filtration rate (eGFR) (1,2). In this meta-analysis, we aimed to assess the efficacy and safety of tolvaptan in delaying both eGFR decline and total kidney volume (TKV) increase in patients with ADPKD. **METHODS:** A systematic search was conducted on PubMed, EMBASE, Web of Science, and Cochrane databases from inception to July 2024. We used the relevant keywords to include studies reporting delay in both eGFR decline and total kidney volume (TKV) increase after tolvaptan therapy. The definition of delay in both eGFR decline and total kidney volume (TKV) increase was identified across the included studies. The number of patients who achieved delay in both eGFR decline and total kidney volume (TKV) increase were extracted from the included studies. Review Manager Version 5.4 (RevMan 5.4) was used for meta-analysis. The random effect model was used in the presence of heterogeneity. **RESULTS:** 4 studies

(3-6) with 1775 patients were included. The pooled mean difference showed that tolvaptan significantly delays eGFR decline [MD = 1.21, 95% CI (0.81, 1.62), P = 0.001, I<sup>2</sup> = 40%] and total kidney volume (TKV) increase [MD = -3.02%, 95% CI (-3.62%, -2.42%, P = 0.001, I<sup>2</sup> = 42%) compared to placebo in ADPKD patients. Furthermore, our pooled analysis demonstrated a significant difference in our secondary outcomes, in which tolvaptan reduced the likelihood of complications such as hypertension [OR = 0.87, 95% CI (0.72, 1.05)], hematuria [OR = 0.92, 95% CI (0.78, 1.09)], renal pain [OR = 0.89, 95% CI (0.75, 1.05)], and urinary tract infection [OR = 0.96, 95% CI (0.82, 1.12)]. However, tolvaptan-treated patients had increased adjusted odds of adverse effects, including polyuria [OR = 5.2, 95% CI (4.3, 6.3)], polydipsia [OR = 3.0, 95% CI (2.4, 3.8)], and hepatic injury [OR = 2.5, 95% CI (1.9, 3.3)]. **CONCLUSION:** Based on this meta-analysis, tolvaptan was associated with a significant delay in both eGFR decline and total kidney volume (TKV) increase. We observed a substantial reduction in the likelihood of complications such as hypertension, hematuria, renal pain, and urinary tract infection in ADPKD patients compared with placebo. However, a slightly higher risk of adverse effects such as polyuria, polydipsia, and hepatic injury was demonstrated. Additional randomized, large-volume clinical trials with long-term follow-ups are required, as tolvaptan may carry short and long-term prognostic implications.

**Key Words:** Autosomal dominant polycystic kidney disease (ADPKD), Tolvaptan, eGFR (estimated glomerular filtration rate), TKV (total kidney volume), Systematic review, Meta-analysis.

**62. LIVED EXPERIENCES OF PATIENTS FOLLOWING MYOCARDIAL INFARCTION DIAGNOSIS IN AN IMPOVERISHED REGION IN PAKISTAN—A QUALITATIVE STUDY**

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**BACKGROUND:** Cardiovascular disease (CVD) is a leading cause of death worldwide, accounting for 19 million deaths in 2020 alone. Ischemic heart disease being the leading cause of CVD-related health impairment worldwide impacts an individual's social, physical, economic, and psychological well-being significantly. Socioeconomic factors such as poverty, inflation, and literacy rates can impact individual experiences of Myocardial infarction (MI). Given the limited awareness and facilities in smaller regions of Pakistan, this study aims to explore the lived experiences of individuals following MI, in a district general hospital in Pakistan covering a large geographical area. **METHODS:** The study was conducted in a one-to-one interview fashion at a cardiology outpatient clinic in a remote region of Punjab, where people from all over Pakistan attend. To help guide the interviews, a questionnaire was designed. Interview questions were asked using a funnelled approach—starting with a general subject and progressing to more focused inquiries. The questionnaire consisted of six open-ended questions, followed by additional questions, specifically structured to elicit detailed responses regarding patients' experiences post-MI diagnosis. For data analysis, each statement was carefully coded, and sub-themes were identified using similar coded statements. Then, after a thorough assessment of data integrity, pertinent themes were identified to create distinct themes, which were then combined into groups. These themes were classified into physical, psychological and social impacts. **RESULTS:** 51 patients (34 men, 17 women) aged 37-86 years were interviewed. Analysis of interviews revealed both positive and negative biopsychosocial effects following diagnosis and treatment. Table 1 illustrates the major themes identified. Physically, participants reported improved chest symptoms and a partial return to routine activities but also reduced physical activity and weakness. Psychologically, experiences ranged from increased lifestyle modification to anxiety and persistent

low mood. Lifestyle changes like dietary modifications and exercise were common, but negative impacts included loss of employment and reduced social contact. **CONCLUSION:** The findings of this study highlight the multifaceted impact of MI and underscore the need for comprehensive care plans by healthcare professionals in developing countries like Pakistan, delineating the need to incorporate physical rehabilitation, psychological support, and social engagement. Further research should delve deeper into these changes to formulate optimal post-MI care.

**Table:** Physical, Psychological and Social Impacts of Myocardial Infarction.

Category	Themes	Details
Physical Impacts	Positive Themes	Improved tiredness, Improved chest pain, Improved symptoms
	Negative Themes	Reduced physical activity, Weakness, Shortness of breath, Headache, Weight gain, Somnolence, Lethargy, Stomach pain
Psychological Impact	Major Positive Themes	Willingness to adopt lifestyle changes, Enhanced faith in God, Acceptance
	Major Negative Themes	Persistent low mood, Insomnia, Irritability, Decreased motivation, Fear of death/heart attack, Anxiety, Anger, Restlessness
Social Impacts	Positive Themes	Diet change to heart-healthy foods, Adoption of a healthy lifestyle (exercise, better diabetes control), Loss of employment or earnings,
	Negative Themes	Lack of interest in family issues, Reduced contact with family and friends, as well as fear of taking on family responsibilities

**Key Words:** Myocardial Infarction, Impacts on Quality of Life, Psychological stressors.



### 63. UNCOMMON PRESENTATION: SIMULTANEOUS HERPES ZOSTER INFECTION IN IMMUNOCOMPETENT PATIENTS

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**BACKGROUND:** Herpes Zoster occurs due to reactivation of the varicella zoster virus (VZV). It mainly affects patients with suppressed cell-mediated immunity, however, there have been cases reported in immunocompetent patients. **THE CASES:** Case 1: A 26-year-old male presented with severe headache in the frontal region on his right side, nausea and dizziness. Analgesic treatment with oral Diclofenac every 12 hours at unspecified dose was indicated. Three days later she returned with vesicles with erythematous base in the course of the ophthalmic trigeminal branch (Figure 1). The patient referred varicella at 6 years of age. Treatment was started with 1 tablet of Acyclovir 400 mg per oral (PO) every 6 hours for 8 days, Diclofenac Complex B intramuscularly (IM) at a dose of 1 ampoule every 24 hours for six days and sublingual ketorolac every 24 hours for eight days. Case 2: A 19-year-old woman with erythematous lesions with vesicular lesions in the abdominal region. She reported a history of chickenpox at 3 years of age. Treatment with 1 tablet of Acyclovir 400 mg PO every 6 hours for 8 days, B complex with Diclofenac IM every 24 hours for six days and ketorolac sublingual every 24 hours. Case 3: A 56-year-old male with erythematous lesions and papules on the neck with mild pain and a history of chickenpox in childhood, without the presence of any immunosuppressive symptoms. She started treatment with oral acyclovir 400 mg every 8 hours PO for 7 days and diclofenac every 12 hours PO. All three patients presented at the follow-up visit with disappearance of all skin lesions, and without any complication. **CONCLUSION:** All patients had an atypical presentation, secondary to the lack of a history of immunosuppression. Although advanced age is one of the most important risk factors, the three patients did not meet this factor. There are few cases of immunocompetent patients reported in the

literature, which were treated mainly with Acyclovir, as used in our patients, obtaining a positive response. This type of presentation is important for medical literature, mainly because it is not considered as differential diagnosis, therefore it is important to consider it due to the recent cases reported in the last years.

**Figure:** Presence of vesicular lesions in trigeminal ophthalmic region (blue arrow).



**Key Words:** Herpes Zoster, Acyclovir, Case Reports.

#### 64. KNOWLEDGE AND PRACTICE OF FAMILY PLANNING AMONG WOMEN OF REPRODUCTIVE AGE IN OKOLOBIRI, BAYELSA STATE, NIGERIA

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**BACKGROUND:** The term "Family planning" is often used as a synonym for birth control. However, family planning does not only involve contraception but also considers planning a child's birth for specific times (spacing the births a few years apart) and planning for a child when there are challenges in conception. Family planning services have the potential to build the quality of lives of people as it is important in the economic situation of the mother or family due to the financial demands in bringing up children. Family planning includes contraceptives, sexuality education and natural family planning. This study therefore seeks to understand the underlying factors and proffer solutions through the promotion of relevant approach to family planning. **METHODS:** A descriptive cross-

sectional study design was conducted, and data was collected from 224 respondents using self-administered questionnaires and analyzed using statistical package for social science (SPSS) version 2.2. **RESULTS:** From the study, (87.9%) of respondents were aware of available family planning options, with male condom being the preferred option. Factors such as age, level of education, occupation, religion as well as the sociocultural influence of male partners may account for the significantly low acceptance of family planning options. **CONCLUSION:** The research findings show that in spite of the fact that there is an increment in the awareness of family planning, additional work needs to be done on its usage. From the study, the significance of males in family planning cannot be overstressed, for this reason they need to be involved in pre counselling. Furthermore, the side effect and health concerns of the female preponderance on the various contraceptive options obtainable needs to be addressed by the health officials. Similarly, effort should be made to embark on public enlightenment on the importance of contraceptive use among the target group of this study.

**Key Words:** Family Planning Services, Female, Condoms, Sex Education, Reproduction.

## 65. ROBOTIC VERSUS LAPAROSCOPIC SLEEVE GASTRECTOMY OUTCOMES: A SYSTEMATIC REVIEW AND META-ANALYSES

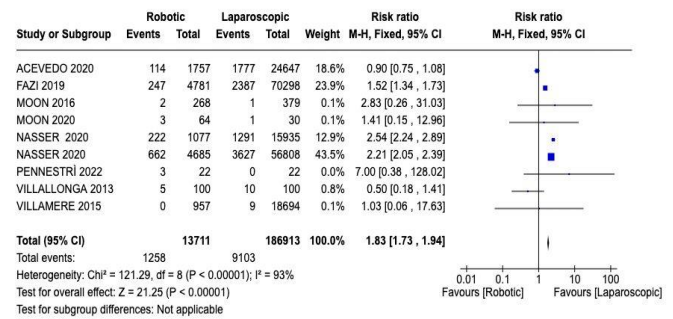
Carlos Esteban Vidal Valderrama<sup>1</sup>, Ramón Adrián Magaña Dávalos<sup>1</sup>, Jessica Edith Acevedo Rodríguez<sup>1</sup>, Valeria Michelle Pérez Alvarado<sup>1</sup>

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**BACKGROUND:** Among the various bariatric procedures, sleeve gastrectomy is a highly effective intervention for achieving significant and sustained weight loss in morbidly obese patients. In recent years, advancements in surgical techniques have introduced robotic-assisted procedures alongside traditional laparoscopic methods, promising improved precision and outcomes. This meta-analysis was conducted to assess the operative outcomes and complications of these two techniques. **METHODS:** We systematically searched PubMed, Embase, Web of Science, and Cochrane, including systematic reviews, meta-analyses of randomized controlled trials, cohort studies, and case-control studies comparing robotic surgery with laparoscopic procedures in patients located in England, Italy, Japan, USA and Germany. **RESULTS:** 9 studies with 1, 203, 901 adult patients were included in this systematic review and meta-analysis. Overall complications of the laparoscopic group were 1.94 [1.82, 2.06]

( $P < 0.00001$ ). The operative time were significantly less in time in the laparoscopic group 28.28 [19.74, 36.82] ( $P < 0.00001$ ). **CONCLUSION:** This meta-analysis indicates that laparoscopic sleeve gastrectomy is associated with a lower complication rate as well as a shorter operation time.

**Figure.** Comparative Risk Ratio of Complications: Robotic vs. Laparoscopic Sleeve Gastrectomy Based on Meta-Analysis Data.



**Key Words:** Laparoscopy, Gastrectomy, operation, remote robotics.

**66. LUMP IN THE MUSCLE: SHOULD WE FORGET A RARE CAUSE?**Amitoj Sidhu<sup>1</sup>; Preeyati Chopra<sup>1</sup>; Vishal Chopra<sup>1</sup><sup>1</sup> Government Medical College, Patiala

**BACKGROUND:** Cysticercosis is a parasitic disease caused by the larval form of *Taenia solium* (pig tapeworm). It most commonly affects the human nervous system. Isolated involvement of the muscle is rare and only sporadic case reports are available. **THE CASE:** A 49-year-old male presented with pain and swelling in the right lateral infraclavicular area for 2 weeks. The swelling was well defined, 2×1.5 cm in size, firm on palpation and immobile. It was non fluctuant and non-reducible with no tenderness or overlying skin changes. There was no other swelling on the body. The patient complained of mild pain on movement of the right arm especially on overhead abduction but without any neurological involvement. There was no history of fever, cough or any recent sick contacts. There was a history of neurocysticercosis in the past. Rest of the physical examination and laboratory results were within normal limits. Ultrasonography showed a cyst with an echogenic scolex and an inflammatory mass

surrounding it. Magnetic resonance imaging showed a 15×10×9mm cystic mass in the right pectoralis major muscle, accompanied by scolex, muscular oedema, and subcutaneous oedema. The patient refused surgical intervention. He was started on albendazole for two weeks to expedite cyst involution and corticosteroids to minimize inflammation around the lesion. Steroids were stopped after two weeks and Albendazole was continued for three months. The patient showed complete resolution of the swelling after 3 months. This case highlights the need of investigating intramuscular cysticercosis as a possible diagnosis for individuals with a single intramuscular or subcutaneous mass. Early suspicion of cysticercosis especially in endemic areas is important, to distinguish it from various similar conditions. **CONCLUSION:** The diagnosis of intramuscular cysticercosis is frequently delayed or overlooked due to vague clinical symptoms. Clinically, the diagnosis of intramuscular cysticercosis might be problematic because there are various clinical differentials, including epidermoid cysts, lipoma, sarcoma, neuroma, neurofibromas, cold abscess, and pyomyositis. Therefore, radiological evaluation is at times the only diagnostic modality especially when patient refuses surgical intervention.

**Key words:** Cysticercosis, Muscle, Isolated, Intramuscular.

## 67. EN BLOC KIDNEY TRANSPLANTATION, THE BEST OPTION?

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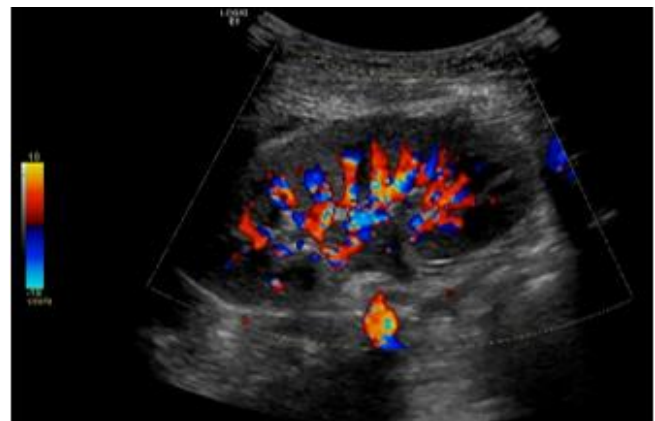
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**BACKGROUND:** Kidney transplantation is the treatment of choice in pediatric patients with end-stage renal disease. Among the transplantation techniques, en bloc renal transplantation, first practiced in 1969, has been considered, nevertheless, it increased the risk of urinary, vascular and functional complications. In recent years, there have been reports of better results compared to the standard technique. **THE CASE:** A 15-year-old male patient with a history of chronic kidney disease stage KDIGO V of unspecified etiology undergoing hemodialysis. His case was discussed in the transplant department, who indicated renal transplantation. During the protocol for his inclusion in the national waiting list, a positive purified protein derivative (PPD) test of 20 millimeters of induration was detected, which required a computed tomography scan, locating areas of ground glass bilaterally, therefore prophylaxis with isoniazid 300 mg daily orally for six months was indicated. At the end of the regimen, he was considered eligible to receive a transplant. The first option was to receive a kidney transplant from a living related donor; however, the donor had a positive COVID 19 test, therefore it was decided to switch to receiving the transplant from a deceased donor. Availability of en bloc kidneys was reported, and the transplant was performed successfully. During his post-transplant stay, he showed adequate

blood flow by doppler ultrasound with no evidence of thrombosis (Figure 1) and adequate renal function. He is currently in good health, complying with his immunosuppressive regimen and without complications. **CONCLUSION,** Despite the refusal to perform it in previous decades due to complications, it is currently considered an acceptable technique, even showing a long-term graft survival similar to grafts obtained from living donors. Despite these good results, kidneys from low weight donors are rarely used. One of the main complications is urological, however, they do not have an impact on graft survival, in addition, they did not occur in the patient. It is important to consider en bloc kidney transplantation as one of the options due to its good results and long-term graft survival similar to the most commonly used technique.

**Figure:** Doppler ultrasound with adequate blood flow and no suggestive evidence of renal thrombosis.



**Key Words:** Kidney Transplantation, Renal Insufficiency, Case Report.

## 68. DIAGNOSTIC CHALLENGE OF PAROXYSMAL NOCTURNAL HEMOGLOBINURIA (PNH) WITH APLASTIC ANEMIA: A CASE REPORT

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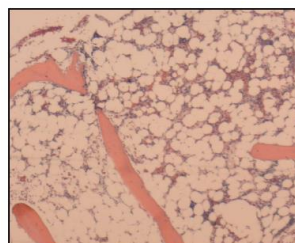
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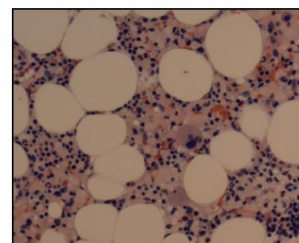
**Background:** Paroxysmal Nocturnal Hemoglobinuria (PNH) is a rare, acquired blood disorder caused by somatic mutations in the phosphatidylinositol glycan protein A (PIG-A) gene within hematopoietic stem cells. This mutation impairs the production of glycosylphosphatidylinositol (GPI) anchor proteins CD55 and CD59, which regulate complement activity. Their deficiency leads to uncontrolled complement activation, resulting in hemolysis and other PNH manifestations, including pancytopenia and aplastic anemia. Pancytopenia is a reduction in all three blood cell types below normal ranges, while aplastic anemia is pancytopenia with hypo cellular bone marrow. Aplastic anemia can create an environment conducive to PNH clone expansion. PNH's close association with aplastic anemia causes a diagnostic dilemma as to whether it is a cause or effect of aplastic anemia complicating the determination of the primary disease. Here, we present a case of a 39-year-old woman with transfusion-dependent pancytopenia, later diagnosed with PNH and aplastic anemia. **Case Report:** A 39-year-old woman presented with shortness of breath, palpitations, light-headedness, easy bruising, and heavy menstrual bleeding. She experienced significant fatigue and a near-fainting episode. Initial blood tests revealed pancytopenia, leading to an emergency department referral. Her medical history included Vitamin B12 deficiency, hypothyroidism, galactosemia, anxiety disorder, and a previous COVID-19 infection. On examination, she was alert but fatigued and dizzy, with pallor, hypotension (99/37 mm Hg), and bradycardia (57/min). Lab tests showed severe anemia (hemoglobin 4.8 g/dL), thrombocytopenia (platelets 22,000/ $\mu$ L), and signs of hemolysis (elevated LDH and low haptoglobin). Despite treatment with intravenous Vitamin B12 and steroids, there was no improvement. Blood tests for Epstein-Barr and Parvovirus were positive, but methyl prednisone and intravenous immunoglobulin treatment had no significant effect. This made it clear that her

pancytopenia was not due to these viral infections. A bone marrow biopsy (image 1) revealed hypo cellular marrow with decreased trilineage hematopoiesis, and there was no evidence of myeloid or lymphoid neoplasms. She was diagnosed with aplastic anemia based on these findings. Given the persistence of pancytopenia and the absence of other identifiable causes, a workup for PNH was initiated. Flow cytometry confirmed the presence of GPI-deficient cells, consistent with a diagnosis of PNH with immune-mediated aplastic anemia. The patient was started on Pegcetacoplan, a proximal complement inhibitor, which led to significant clinical improvement. However, due to persistent thrombocytopenia, she was also considered for a bone marrow transplant and referred for further evaluation. **CONCLUSION:** PNH is a rare hematological disorder that can present with diverse clinical features, including pancytopenia and aplastic anemia. The diagnosis is challenging and requires a thorough evaluation to exclude other potential causes. In this case, the patient's pancytopenia was initially attributed to various reversible causes, but the persistence of symptoms and detailed investigations ultimately led to the diagnosis of PNH. Treatment with complement inhibitors like Pegcetacoplan can significantly improve clinical outcomes, although bone marrow transplantation remains the only curative option. Close monitoring and individualized treatment plans are essential for managing the complications associated with PNH.

**Figure:** Bone Marrow Biopsy Findings in Paroxysmal Nocturnal Hemoglobinuria with Aplastic Anemia.



Core biopsy: hypocellular marrow for age



Core: mixed hematopoiesis

**Key Words:** (Hemoglobinuria, Paroxysmal), (Anemia, Aplastic), Pancytopenia.

### 69. AM I A FRAUD? OCCURRENCE AND FACTORS ASSOCIATED WITH IMPOSTOR PHENOMENON AMONG MEDICAL STUDENTS OF KHARTOUM UNIVERSITY, 2022.

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**BACKGROUND:** The impostor phenomenon (IP) is the tendency to attribute success to external factors rather than to one's abilities. It is frequent among medical students and has a negative impact on their wellbeing. This study aimed to assess the occurrence and mental health factors associated with IP in medical students in Sudan. **METHODS:** A cross-sectional analytical study was conducted among University of Khartoum faculty of medicine students from December 2021 to January 2022, utilizing non-probability convenience sampling. The data collection tool employed was a Google form containing the Clance Impostor Phenomenon Scale (CIPS), Anxiety and depression were assessed using the Patient Health Questionnaire-4 (PHQ-4), burnout using the 2-item Maslach B burnout Inventory (MBI), and self-esteem with the Single-Item Self-Esteem Scale (SISE), with ethical clearance obtained from the department of community medicine at the faculty of medicine. Data was analyzed using SPSS version 26 with correlation analyses and Chi-square tests. **RESULTS:** In the study sample (n = 409), IP was found in 216 students (52.8%). Statistical association was found between IP and gender (p = 0.028) and academic year (0.008). A regression model found statistical association (p<0.001) between IP and self-esteem, parental over-protection, anxiety, depression, burnout, and perfectionism. Individual CIPS items corresponded with the total CIPS scores, and the responses to individual CIPS items differed based on gender. **CONCLUSIONS:** IP is frequent among University of Khartoum medical students and is linked to various family dynamics,

personality traits, and mental health issues. Efforts to increase awareness and facilitate IP management should be implemented.

**Table:** Predictors of Impostor Phenomenon Among the Students of the University of Khartoum Faculty of Medicine by Using Multiple Linear Regression.

variables	Coefficients	p-value	95% Confidence Interval of the coefficients	
			Lower Bound	Upper Bound
(Constant)	37.424	<.001	31.414	43.434
Burnout scale score	1.323	<.001	.944	1.703
self-esteem	-4.193	<.001	-5.221	-3.165
perfectionism scale	.856	<.001	.660	1.052
Parental overprotection	2.429	<.001	1.418	3.441
pressure-based maternal relationship	3.496	.028	.381	6.611
Depressed or not	2.902	.024	.386	5.418

**Legend:** The linear combination of the measures was significantly related to the IP score,  $F(6, 394) = 80.3$ ,  $p < .001$ .

**Key Words:** Impostor, Imposter, Impostorism, Depression, Anxiety, Burnout, Self-esteem, Perfectionism, Family dynamics.

## 70. IMPACT OF THE SUDAN CONFLICT ON ASTHMA MANAGEMENT: A CROSS-SECTIONAL STUDY OF PATIENT OUTCOMES AND HEALTHCARE CHALLENGES

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**BACKGROUND:** Asthma is a chronic respiratory condition that requires effective and continuous management to prevent severe health complications and to ensure a high quality of life. In regions affected by ongoing conflict, such as Sudan, the disruption of healthcare systems can significantly impact asthma management. This study aims to evaluate the impact of the Sudan conflict on asthma management and to identify specific challenges faced by asthma patients and healthcare providers, including disruptions in medication access, healthcare services, and overall patient health outcomes. **METHODS:** We conducted a cross-sectional study involving 400 asthma patients in conflict-affected regions of Sudan. The study collected data on demographic variables including age, gender, residence (urban vs. rural), and socioeconomic status. Clinical variables were measured, including asthma severity (mild, moderate, severe), medication adherence, frequency of exacerbations, lung function (FEV1 levels), and asthma control as assessed by the Asthma Control Test (ACT). Healthcare access variables included medication availability, frequency of healthcare visits, healthcare provider

availability, and healthcare infrastructure. The impact of conflict variables comprised disruptions in medication supply, damage to healthcare facilities, barriers to accessing healthcare (e.g., roadblocks, insecurity), and the psychological impact on patients, such as increased stress and anxiety levels. The data was obtained through patient surveys and medical records. **RESULTS:** The conflict has severely impacted asthma management in the Sudanese population. Among the 400 patients, 65% reported significant interruptions in their medication supply, leading to a 50% increase in asthma exacerbations and emergency room visits. Medication adherence decreased by 40% due to the inconsistent availability of essential drugs. Lung function assessments revealed a 30% decline in FEV1 levels compared to pre-conflict measurements. Patient-reported asthma control, measured using the ACT, deteriorated in 55% of patients, with average scores dropping from 22 to 16, indicating poorer control. Healthcare providers reported severe shortages of essential supplies and equipment, with 70% experiencing difficulties in maintaining consistent care. Additionally, 45% of patients reported heightened psychological distress, including elevated stress and anxiety levels, which exacerbated asthma symptoms. Barriers to accessing healthcare, such as roadblocks and insecurity, led to a 35% reduction in healthcare visits. **CONCLUSION:** The ongoing conflict in Sudan has critically impaired asthma management, resulting in increased health complications and deteriorated patient outcomes. A comprehensive approach is needed, including improving medication distribution, strengthening healthcare services, and offering psychological support. This study provides valuable insights into the intersection of chronic disease management and conflict, offering lessons for enhancing care in similar crises.

**Key Words:** Asthma, Conflict, Healthcare disruption, Sudan, Chronic respiratory diseases, Medication access, Patient outcomes.



## 71. KNOWLEDGE, ATTITUDE AND PERCEPTION OF MEDICAL STUDENT TOWARDS A CAREER IN ANAESTHESIOLOGY

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**BACKGROUND** Anesthesia is a crucial specialty in the medical field as it transcends both medical and surgical specializations. However, it is vital to Global Surgery. **AIM:** This study aims to assess and evaluate the knowledge, attitudes and perceptions of medical students towards anaesthesiology and a career in it. **METHODOLOGY:** It was a descriptive cross-sectional study quantitative study conducted amongst clinical students of Afe

Babalola University Medical School. Using simple balloting method, the 5<sup>th</sup> year medical students were chosen. Data collected was then organized on a google sheet and analyzed. **RESULT:** Majority (82.7% n=86) of the respondents were females, while a few ((17.3% n=18) were males. All (100% n=104) of the respondents had undergone academic lectures in pharmacology of anesthetics, majority (60.6% n=63) did not find it easy and had to put in extra efforts to understand it. Practically, 76% (n=79) of the respondents had completed clinical rotations in anaesthesiology as part of their medical training. Most (49% n=51) of them are not considering a career in Anesthesiology. While 7.7% (n=8) of them are definitive about wanting a career in anaesthesiology, 43.3% (n=45) see it as a possibility. As regards intra-personal work relationship in the hospitals, 95.2% (n=99) of the respondents observed a positive relationship that resulted in good surgical outcomes. **CONCLUSION:** The anaesthesiology training of medical students is curricular and not competence based. Less than 1 in 10 students are considering Anesthesia as a definitive career path. A positive relationship between surgeons and anesthetists promotes good surgical outcomes.

**Key Words:** Anaesthesiology, Medical students.

**72. A CROSS-SECTIONAL EVALUATION OF MEDICAL STUDENTS, INTERNS AND POSTGRADUATES REGARD FOR PATIENTS WITH SUBSTANCE ABUSE USING THE MEDICAL CONDITION REGARD SCALE (MCRS) IN ANDHRA PRADESH**

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**BACKGROUND:** Positive attitudes and empathy from healthcare providers are essential in the effective treatment of patients with substance abuse, impacting both treatment outcomes and patient well-being. In India, attitudes towards substance abuse often reflect a lack of awareness and limited understanding of effective rehabilitation procedures. The Medical Condition Regard Scale (MCRS) is a valuable tool and has been shown to effectively capture the complexity of provider attitudes. However, its use in the Indian context for substance abuse has been limited. **AIMS:** The study aims to evaluate and compare the regard for patients with substance abuse among medical students, interns, and postgraduates using the MCRS, and to determine any potential significant differences in attitudes based on gender, age, and occupation. **METHODS:** A cross-sectional survey was conducted between June and August 2024 using an online self-administered questionnaire distributed via Google Forms through social media. The survey included medical students (MBBS 3rd and 4th year), interns, and postgraduates in Andhra Pradesh. The questionnaire collected informed consent and demographic information (gender, age, state, year of study, marital status, and religion), and responses to the MCRS, which includes eleven items rated on a six-point Likert scale (1 = strongly disagree, 6 = strongly agree), with five items reverse-scored. The total regard score was derived from the sum of individual item scores, ranging from 11 to 66. Statistical analyses were performed using Microsoft Excel and RStudio v4.3.3. Chi-square tests were used to compare the number of participants with positive (total score 44 and above) and negative (total score 43 and below) regard against demographic variables. **RESULTS:** A total of 206 responses were collected, of which 187 met the inclusion criteria. The majority of participants were male (n=98, 52.4%), aged 21-25 years (n=133, 71.1%), interns (n=85, 45.5%), unmarried (n=179, 95.7%), and Hindu (n=160, 85.6%). The median total regard score was 44, with a mean score of 44.7 (SD=6.7), reflecting a generally positive regard for patients with substance abuse. The highest positive regard was noted for the statement, "I wouldn't mind getting up on call nights to care for patients with substance-use disorder" (mean=4.4, SD=1.1), indicating a position of uncertainty leaning towards agreement. The highest negative regard was for the reverse-scored statement, "Treating patients with

substance-use disorder is a waste of money" (mean=4.8, SD=1.2), indicating disagreement with this viewpoint. Chi-square analysis showed that females had a significantly higher positive regard compared to males (p=0.04085). No significant differences were found with respect to age groups (p=0.3442) or occupation (p=0.6534). **CONCLUSION:** This study highlights a generally positive regard toward patients with substance abuse. However, limitations include respondent bias, and restriction to a single state, potentially limiting generalizability. The skewed distribution of respondents, with a predominance of unmarried and Hindu participants, prevented analysis of associations with religion and marital status. Future research should therefore include diverse regions and demographic groups. Targeted educational interventions for healthcare professionals, and incorporating substance abuse care into medical curricula and providing opportunities for hands-on experience can help to reduce stigma and improve patient outcomes.

**Table:** Attitudes Toward Patients with Substance Use Disorders Among Medical Students, Interns, and Postgraduates Using the Medical Condition Regard Scale (MCRS).

Question	Mean (SD)
1. Working with patients with substance-use disorder is satisfying <sup>^</sup>	3.9 (1.3)
2. Insurance plans should cover patients with substance-use disorder to the same degree that they cover patients with other conditions (Insurance) <sup>^</sup>	2.9 (1.3)
3. There is little I can do to help patients with substance-use disorder*	4.3 (1.4)
4. I feel especially compassionate toward patients with substance-use disorder <sup>^</sup>	4.3 (1.1)
5. Patients with substance-use disorder irritate me*	3.8 (1.3)
6. I wouldn't mind getting up on call nights to care for patients with substance-use disorder <sup>^</sup>	4.4 (1.1)
7. Treating patients with substance-use disorder is a waste of money*	4.8 (1.2)
8. Patients with substance-use disorder are particularly difficult for me to work with <sup>^</sup>	3.5 (1.2)
9. I can usually find something that helps patients with substance-use disorder feel better <sup>^</sup>	4.3 (1.0)
10. I enjoy giving extra time to patients with substance-use disorder <sup>^</sup>	4.0 (1.1)
11. I prefer not to work with patients with substance-use disorder*	4.3 (1.3)
<b>Maximum Total Score</b>	<b>62</b>
<b>Minimum Total Score</b>	<b>27</b>
<b>Median Total Score</b>	<b>44</b>
<b>Mean Total Score</b>	<b>44.7 (6.7)</b>

**Key Words:** Substance abuse, attitudes, healthcare professionals, medical students, India.

### 73. PREVALENCE AND PATTERNS OF GENDER-BASED VIOLENCE AMONG UNDERGRADUATES IN A NIGERIAN UNIVERSITY

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**BACKGROUND:** Gender-based violence (GBV) is an umbrella term for any harmful act against a person's will based on socially ascribed differences between males and females. It can manifest as various forms of physical, sexual or psychological/emotional violence. These forms of GBV are not mutually exclusive, as multiple types can happen simultaneously and reinforce each other. Various factors encourage the perpetuation of GBV, including traditional attitudes towards women, race, social class, and sexuality. Staying far away from family, early life experiences of divorce, and parental violence are also familial factors that predispose to GBV. Violence survivors and their families suffer greatly from the impacts of GBV, which has major health, social and economic ramifications. **AIM:** To assess the prevalence and pattern of GBV among undergraduates and respondents' knowledge of its effects. **METHODOLOGY:** A cross-sectional descriptive study was employed in which self-administered questionnaires were distributed to 413 students in 7 faculties at the University of Calabar, Nigeria, chosen using a multi-stage sampling technique. The questionnaire inquired about the experience of GBV and respondents' knowledge of its effects. Analysis was done using Statistical Package for Social Science (SPSS) version 21.0 for Windows. The significance level was set at a p-value less than or equal to 0.05. Relationships were tested using inferential statistical techniques (chi-square) appropriate for categorical variables. We employed multivariate analysis to assess the relationship between GBV and various potential contributing factors, account for multiple variables simultaneously, and identify significant predictors. **RESULTS:** The response rate for the study was 100%, and the overall prevalence of GBV among participants was 80 (19.4%), with emotional violence being the most prevalent experienced by the victims (18.6%). The prevalence of GBV was slightly higher in males than in females, but

this difference was not statistically significant ( $p > 0.05$ ). Other variables such as age, marital status and year of study were also not significantly associated with GBV ( $p > 0.05$ ). Most respondents agreed that GBV has psychological, social and health implications. The Multivariate Regression Analysis also identified the second year of schooling as a significant predictor of Gender-Based Violence, as students in their second year exhibited a higher likelihood of experiencing GBV compared to their peers ( $p = < 0.027$ ), with a Confidence Interval of 1.18 to 15.09. **CONCLUSION:** The study showed that Gender-based violence is a problem in Nigeria, affecting both genders. The results challenge entrenched gender stereotypes and suggest the need to develop inclusive policies and programs that support both male and female victims. These findings emphasize the importance of an inclusive approach, including heightened awareness and education, support services like mental health care and legal assistance, and addressing factors that promote violence among both sexes, including cultural and social norms, to ensure all victims receive the necessary support and protection. The university authority should also implement precise and clear-cut sanctions and penalties against GBV. Our findings' lack of statistical significance also underscores the need for further research with larger sample sizes to understand male GBV better and ensure robust, evidence-based interventions.

**Table:** Frequency and Patterns of Gender-Based Violence.

Variable	Frequency	Percentage (%)
Frequency of Occurrence		
Daily	11	13.8
Weekly	16	20
Two times weekly	13	16.3
Four times monthly	4	5
Monthly	36	45
Prevalent Patterns		
Physical	75	18.2
Emotional	77	18.6
Sexual	55	13.3

**Key Words:** Gender-based violence, Prevalence, Students, Male, Female.

**74. PSYCHOSOCIAL SUPPORT AND QUALITY OF LIFE IN CKD PATIENTS ON HEMODIALYSIS AMIDST THE SUDAN CONFLICT: A CROSS-SECTIONAL STUDY**

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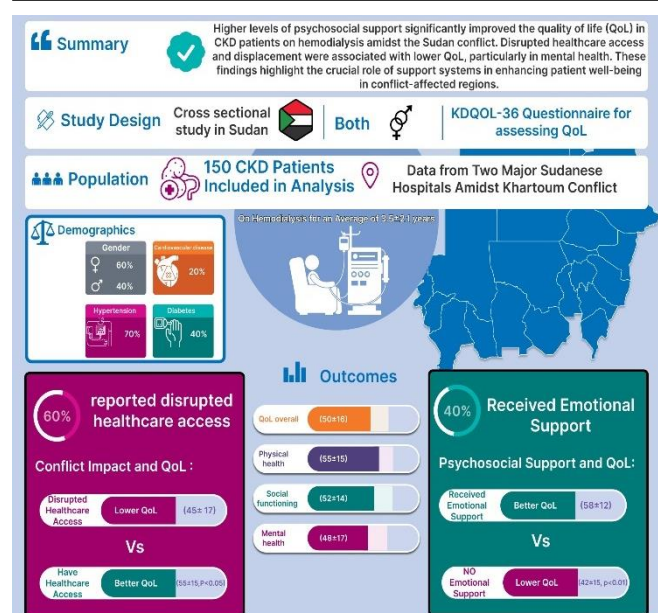
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**BACKGROUND:** Chronic kidney disease (CKD) patients undergoing hemodialysis often experience significant physical and psychological challenges. The quality of life (QoL) for these patients is influenced by various factors, including psychosocial support (1). In conflict-affected regions like Sudan, the ongoing armed conflict has further complicated these challenges (2). This study aims to assess the impact of psychosocial support on the QoL of CKD patients on hemodialysis amidst the Sudan conflict and to evaluate how conflict-related disruptions affect their well-being. **METHODS:** We conducted a cross-sectional study involving 150 CKD patients on hemodialysis at two major hospitals in Khartoum, Sudan. Participants were selected through purposive sampling, ensuring diversity in demographics and clinical characteristics. We used standardized screening questionnaires, including the Kidney Disease Quality of Life-36 (KDQOL-36) for assessing QoL (3). Additional questions assessed psychosocial support levels and the impact of the Sudan conflict. We analyzed the data using SPSS version 26.0. We used descriptive statistics to measure the central tendencies and variability of demographic and clinical characteristics; we also used frequencies and percentages for psychosocial support levels and conflict-related factors among CKD patients. A p-value of 0.05 or less was considered statistically significant. **RESULTS:** Out of the 150 participants in the study, 60% were females and 40% were males, with a mean age of 55 ± 12 years. Most participants had been on dialysis for an average of 3.5 ± 2.1 years. Comorbidities included hypertension (70%), diabetes (40%), and cardiovascular disease (20%). Socioeconomic status varied, with 45% below the poverty line. The mean Quality of Life (QoL) scores were 55 ± 15 for physical health, 48 ± 17 for mental health, 52 ± 14 for social functioning, and 50 ± 16 overall. High emotional support was associated with significantly higher QoL scores (mean overall QoL 58 ± 12) compared to low emotional support (mean overall QoL 42 ± 15, p < 0.01). Strong social support correlated with better physical health (mean 60 ± 14 vs. 50 ± 16, p <

0.05) and overall QoL (mean 55 ± 13 vs. 45 ± 14, p < 0.01). Disrupted access to healthcare services was reported by 60% of participants, and 20% had been displaced due to the conflict. Disruption in healthcare access was linked to lower QoL scores (mean overall QoL 45 ± 17) compared to those with no disruptions (mean overall QoL 55 ± 15, p < 0.05). Displaced patients had poorer mental health scores (mean 42 ± 18) compared to non-displaced patients (mean 50 ± 16, p < 0.05). **CONCLUSION:** This study highlights the significant impact of psychosocial support on the QoL of CKD patients undergoing hemodialysis in conflict-affected settings. Higher levels of psychosocial support are associated with better QoL outcomes. The ongoing Sudan conflict amplifies the challenges faced by these patients, stressing the need for targeted psychosocial interventions and support systems to alleviate the adverse effects of the conflict on patient well-being. The findings call for implementing strategies to improve QoL and health outcomes for CKD patients in conflict zones.

**Figure:** Psychosocial Support and Quality of Life in Chronic Kidney Disease Patients on Hemodialysis During the Sudan Conflict.



**Key Words:** Chronic kidney disease, Hemodialysis, Quality of life, Psychosocial support, Sudan conflict, Cross-sectional study.

### 75. PRIMARY HEALTH CARE SERVICES UTILIZATION AND ITS DETERMINANTS IN RURAL AREAS, CENTRAL SUDAN

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**BACKGROUND:** In 2022, the World Health Organization and Sudan's transitional government developed a country cooperation strategy to move closer to universal health coverage (UHC) by enhancing access to quality primary health care (PHC). Evaluating PHC centers and identifying factors influencing their utilization is essential for improving these services. This study aimed to assess the perceptions of Om Shanig residents regarding PHC services at their rural hospital and to determine the factors affecting their usage. **METHODS:** This was a cross-sectional, community-based study conducted in Om Shanig, a rural area in Gezira State, from December 20-24, 2022. Data were collected from adults aged 18 years and older using a pretested,

interviewer-administered questionnaire. The data were analyzed using SPSS version 23. **RESULTS:** A total of 95.7% of participants had visited the PHC center and were generally satisfied with most services. However, 21.7% reported poor sanitation, 42.2% noted the absence of radiologic services, and 23.8% found laboratory services to be only sometimes available. Additionally, 4.5% expressed an unwillingness to continue using the center. Key factors influencing the decision to utilize the center included waiting time ( $p = 0.013$ ), availability of medications ( $p = 0.003$ ), and satisfaction with diagnostic services, treatment, nursing care, administration, laboratory tests, doctors, and vaccinations ( $p < 0.001$  for all). **CONCLUSION:** The overall utilization of primary healthcare services was good. However, it may decline due to issues such as the lack of medications and laboratory tests. Ensuring the availability of essential services and educating the community about what services to expect at each level is crucial for maximizing the potential of primary care.

**Key Words:** Primary Health Care, Utilization, Rural Areas, Central Sudan.

**76. Eyelid Tumor and Microcephaly in Hunter's Disease**

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**BACKGROUND:** Hunter disease, or mucopolysaccharidosis type 2, is an X-linked inherited disease characterized by deficiency of the enzyme iduronate 2 sulfatase, which leads to accumulation of glycosaminoglycans. **THE CASE:** A 17-year-old male patient diagnosed with Hunter's disease at 15 months of age. He started his condition one year and three months earlier with edema in the right eye and inability to open it, which improved slightly with medical treatment. Eight months later, he came to our institution due to a tumor in both upper eyelids and microcephaly (Figure 1). Subsequently, surgical resection and external canthoplasty were performed. The surgical report showed pseudoepitheliomatous hyperplasia with no evidence of malignancy. Currently, the patient is stable with adequate healing and no visual sequelae. **CONCLUSION:** This condition usually manifests between two and four years of age, however, the most severe forms appear earlier. The most common ocular symptoms include glaucoma, retinopathy and hypertelorism, contrasting with the rare tumorization in both patient's eyelids. Although macrocephaly is common, the patient had microcephaly, a previously undocumented finding, therefore, to the best of our

knowledge, it is the first reported case of a patient with microcephaly. Early identification and appropriate management are crucial to improve the quality of life and prognosis of these patients.

**Figure:** Protrusion of Both Upper Eyelids Due to Tumorization (Orange Arrows).



**Key Words:** Eyelids, Pediatrics, Ophthalmology.

**77. THE IMPACT OF THE COVID-19 LOCKDOWN ON CANCER REFERRALS IN PRIMARY CARE IN THE UK: TWO YEARS ON**

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**BACKGROUND:** Cancer is common, with most cancer patients presenting initially to a general care practitioner. The COVID-19 pandemic led to changes in the delivery of primary care, which could have affected cancer referrals. This observational study looked at cancer referrals made before, during and after the first UK COVID-19 lockdown in 2020, at a GP practice in the Wirral, England. **METHODS:** A search was conducted to find the cancer referrals made between 23<sup>rd</sup> March 2020 - 1<sup>st</sup> July 2020, during the first lockdown. Using the same methodology, cancer referral data was collected for the corresponding time periods in 2019 and 2021. The number of cancer referrals, and their positive diagnostic yields, were then compared.

**RESULTS:** The number of cancer referrals decreased by 40.4% in 2020, compared to 2019. In 2021, the number of referrals then increased by 225%, compared to 2020. Overall, the number of cancer referrals increased between 2019-2021. The positive diagnostic yield for the 2020 cancer referrals increased by 251.4%, compared to that of 2019. The calculated yield for the 2021 data then decreased by 10.8% compared to 2020. Overall, the positive diagnostic yield increased between 2019-2021. **CONCLUSION:** The numbers and outcomes of cancer referrals at this GP practice have changed considerably, following the first UK COVID-19 lockdown in 2020, and the influence of the pandemic was still affecting cancer referrals in 2021. A greater focus on early detection of cancer in primary care could help overcome the ways in which the pandemic has affected primary care delivery.

**Key Words:** Referrals; Primary care; Clinical Audit; Observational Study; Coronavirus.

### 78. COMPETENCY-BASED MEDICAL EDUCATION (CBME)- AN INCREMENTAL BOON FOR UNDERGRADUATE MEDICAL STUDENTS OF INDIA

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**BACKGROUND:** Competency based education has been defined as a result-based program to design, implement, assess and evaluate medical education using an organizing framework of competencies. According to the vision document put forth by MCI, the undergraduate medical education program was designed with a goal to create an Indian Medical Graduate (IMG) possessing requisite knowledge, skills, attitudes, values, and responsiveness, so that he or she may function appropriately and effectively as a "physician of first contact" of the community while being globally relevant too. Albeit the CBME curriculum has been introduced in the country since 5 years, but such evaluation of the curriculum has not been carried out so extensively so far. Hence, this study fulfills the need of the hour and may suggest to rectify the education system accordingly in the nation as well as being a role model for other nations. **METHODS:** Ethical approval was obtained from the Institutional Ethics Committee (IEC). The study population included 214 CBME exposed and 214 CBME non-exposed undergraduates of the same college. A retrospective preformed Google Form based questionnaire with digitally signed informed written consent was used to measure knowledge and attitudes of CBME exposed undergraduate graduates and CBME non-exposed undergraduate students about the peculiar concept of CBME viz. Foundation Course, Early Clinical Exposure (ECE), Attitude, Ethics and Communication (AETCOM), Objective Structured Practical

Examination (OSPE). Statistical analysis was done using SPSS 19 software and appropriate statistical tests were applied. The questionnaire comprised of 4 sections: 1- Knowledge about Foundation Course components such as: Basic Life Support training, Field/Health care center visit, Time management, Stress management, Language skills, Professionalism, Biomedical waste management, IT skills, 2- Attitude, Ethics and Communication (AETCOM), 3- Early Clinical Exposure (ECE) practice objectives: Basic science correlation, Basic clinical skills due to clinical witnessing clinical scenario, Basic clinical skills, Problem solving skills, Better retention of topics, 4- Knowledge and practice about Objective Structured Practical Examination (OSPE). **RESULTS:** At the end of the study, it was found that among CBME-exposed 76% had clear idea and 7% had No idea, whereas among CBME non-exposed 94% had No idea and 1% had clear idea about foundation course components. Regarding AETCOM, 81% Strongly agreed and 1% Strongly disagreed/disagreed among CBME-exposed; while 91% Strongly disagreed and 1% were neutral among CBME non-exposed. Among CBME-exposed, 70% practiced ECE whereas 95% CBME non-exposed never came across ECE. Among CBME-exposed, 88% were sure and 2% had no idea, while among CBME non-exposed 95% had No idea and 1% were not sure about OSCE and its components. **CONCLUSION:** As per the study, there is substantial difference among CBME-exposed and CBME non-exposed undergraduates, regarding knowledge, attitude and practice of key components of newly introduced Competency Based Medical Education (CBME). The increase in knowledge, communication and attitudes scores suggests CBME as an incremental boon to MBBS students. Shortcomings in the CBME curriculum may be used as a basis to bring modifications and build one of the best medical education systems, in order to bring out the most competent doctors in future.

**Key Words:** Competency-based education, Knowledge, Attitudes, Practice, Professionalism.



## 79. EVALUATING THE EFFECTIVENESS AND COMPLICATIONS OF ROBOTIC VS OTHER SURGERY TECHNIQUES FOR MITRAL VALVE REPAIR OR REPLACEMENT: A COMPREHENSIVE SYSTEMATIC REVIEW AND META-ANALYSIS

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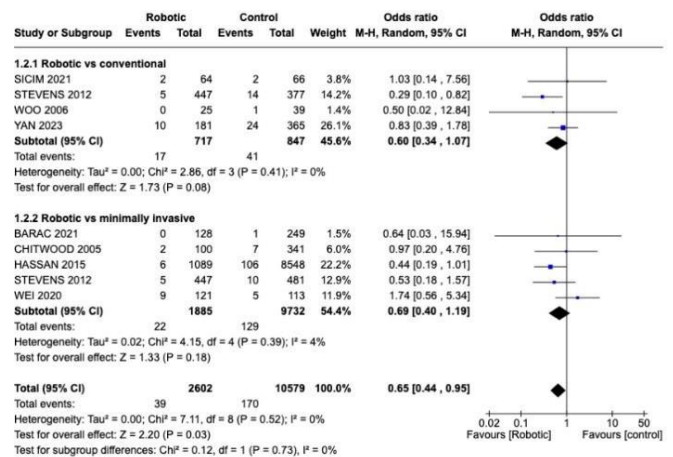
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**BACKGROUND:** Mitral valve repair and replacement are common critical surgical procedures. Traditional open-heart surgery has long been the standard approach, offering reliable outcomes through direct visualization and access to the heart. However, advancements in minimally invasive techniques, particularly robotic-assisted surgery, have introduced new possibilities in the field of cardiac surgery and benefits to the patients regarding the outcomes and complications. Despite these advantages, the technique requires specialized training and has a steep learning curve, leading to variability in outcomes depending on the surgeon's experience. This abstract aims to compare robotic mitral valve repair versus other surgical techniques, providing insights into the evolving approaches to performing this procedure. **METHODS:** We conducted a search in PubMed, Scopus, Web of Science, and Cochrane, including systematic reviews, meta-analyses of randomized controlled trials, cohort studies, and case-control studies comparing robotic surgery with conventional techniques and MIS in patients located in Turkey, Italy, Japan, USA, Australia, Germany, Netherlands, England and China. **RESULTS:**

Eighteen studies with 16,220 adult patients were included in this project. Hospital stay and complications were significantly shorter than conventional procedures in length of stay and Intensive Care Unit (ICU) stay. The mean difference of ICU stay of the conventional group was -0.85 days [95% CI -1.22, -0.47] compared to the robotic group. The mean difference of length of stay in the conventional group was -1.34 days [95% CI -2.12, -0.57] compared to the robotic group. The odds ratio of the mortality overall of the two groups was significantly lower with 0.65 [95% CI 0.44, 0.95] compared to the robotic group. However, the robotic group was associated with longer cardiopulmonary bypass and cross-clamp. Total transfusion rate and overall complications did not show a significant difference. **CONCLUSION:** Compared with conventional and MIS procedures, robotic surgery has the advantage of reduced hospital stays, ICU stays and mortality. Therefore, we suggest that surgical decisions should be tailored to each case, considering previous experience. This highlights the importance of personalized evaluations for achieving the best treatment results.

**Figure:** Differences in the Articles Analyzed Between Robotic Surgery Compared to Conventional and Minimally Invasive Surgery.



**Key Words:** Robotic Surgical Procedures, Mitral Valve, Minimally Invasive Surgical Procedures.

### 80. PRIMARY HEADACHE IN MEDICAL RESIDENTS-A WEB BASED SURVEY

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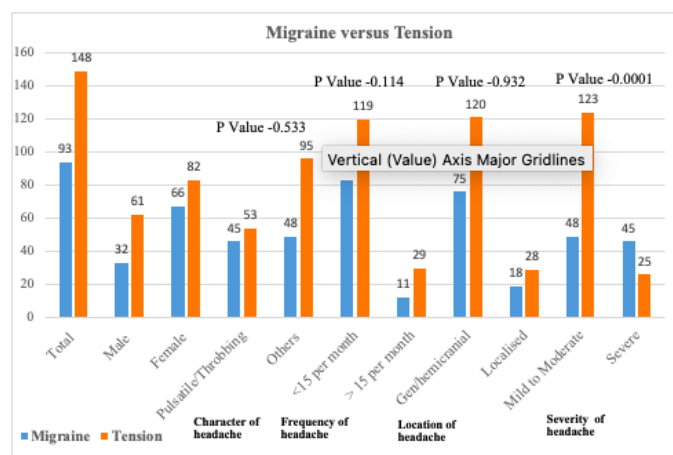
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**BACKGROUND:** Primary headache disorders, such as migraine and tension-type headaches are the most common type of headache disorder, accounting for up to 90% of all headache cases. They have a significant global impact, particularly among young individuals aged 15-49. Medical residents, due to their demanding lifestyles, are especially vulnerable to these disorders. This study was conducted on Indian medical residents, with the aim of establishing the prevalence, sub-types, triggers, and treatment preferences for primary headaches, addressing a research gap in this specific population.

**METHODS:** A cross-sectional study was conducted among medical residents for three months. A validated, web-based questionnaire with 22 questions was used, inviting participants via SMS, email, and social media. Patients having primary headache episodes in the last 1 year were included in the study. Data was collected for the duration, frequency, type, severity, localisation of headache and disability caused by headache. Also, history of preceding or associated symptoms, triggers and relieving factors for headache, and medication used for treatment was collected. **RESULTS:** 382 medical residents initially participated. After excluding 24 with pre-existing conditions and 117 without recent headaches, 241 residents were analysed revealing a 67.31% prevalence of primary headaches. The prevalence was higher in females (77.71%). Based on location generalised headache was the most common, accounting for 59%, and localised headache was reported by 19% of the residents. Most residents (41%) had a pulsating or throbbing type of headache, while 36.5% experienced a dull headache. A tight band-like sensation around the head was noticed by 20% of the medical residents. Common triggers for initiating headaches were lack of sleep (73%), mental stress (71.8%), fasting (44%), sunlight (26.1%), and around one-fifth of women (18.18%) experienced headaches during their menstrual cycle. Relief of migraine was achieved using medication/analgesic (43.6%); while others mentioned sleep, coffee,

and tea to reduce the severity of the attack. However, more than 90% of the medical residents who used medication to relieve their pain have taken a Non-Steroidal Anti-Inflammatory Drug, to get relief from their headache. Triptan was used as an acute remedy by less than 1% of the participants. The use of prophylactic medicine for primary headache prevention was also very limited (<1%). 70/241 (29%) residents experienced severe headache episodes. 47 (19.5%) were frequently prevented from doing their daily activity, while 42 (17.4%) took a day off due to headache. Tension headache was more common (61%) as compared to migraine (39%). Migraine headaches were likely to be of severe intensity in comparison to tension headaches. (p value -0.0001). Other factors such as location, frequency, and character were not significantly different between the two. (p value>0.05; figure 1) **CONCLUSION:** Primary headache disorders significantly affect medical residents globally. Prioritising mental health and support might help in mitigating these issues, enhancing the quality of life for medical professionals. This can potentially reduce absenteeism at work and improve productivity.

**Figure:** Comparative Analysis of Migraine and Tension-Type Headaches Among Medical Residents.



**Key Words:** Primary headache, Migraine, Tension headache, Medical residency.