

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.