

81. **REDDIT USERS' QUESTIONS AND CONCERNS ABOUT ANESTHESIA.**Khalid El-Jack¹, Korey Henderson², Anietie U. Andy³, Lauren Southwick⁴.¹ Third-year Medical Student. Perelman School of Medicine, Philadelphia, United States.² Second-year Medical Student. Perelman School of Medicine, Philadelphia, United States.³ PhD. Center for Digital Health, University of Pennsylvania, Philadelphia, United States.⁴ MPH. Center for Digital Health, University of Pennsylvania, Philadelphia, United States.

INTRODUCTION: Patients utilize social media in search of support networks. Reddit is one of the most popular social media sites and allows users to anonymously connect. Anesthesia patients are actively using Reddit to discuss their treatment options and experiences within the medical system. **METHODS:** Posts published on an active Reddit forum on Anesthesia (i.e., /r/Anesthesia) were used. Big Query was used to collect posts from /r/Anesthesia. We collected 3,288 posts published between December 2015 and August 2019. We collected a control group of 3,288 posts from a Reddit forum not related to Anesthesia. Using latent Dirichlet allocation (LDA) we extracted 20 topics from our data set. The LDA topic themes most associated with posts in /r/Anesthesia compared to the control group were determined. **RESULTS:** LDA analysis of posts in /r/Anesthesia relative to a control group produced 6 distinct categories of posts (Table 1). The posts most associated with /r/Anesthesia when compared to a control group were posts belonging to the "Physician-Patient Experience" category (Cohen's d= 0.389) while the posts least associated with /r/Anesthesia were from the "Uncertainties" category of posts (Cohen's d= 0.147). Example experiences from members of the /r/Anesthesia forum highlight subjective experiences of patients undergoing anesthesia. **CONCLUSION:** The language used on social media can provide insights into an individual's experience with anesthesia and inform physicians about patient concerns. Anesthesiologists are poised to address these concerns and prevent anonymous misinformation by providing verified physician insights on the forum /r/Anesthesia.

Table. Latent Dirichlet Allocation Topics Associated with /r/Anesthesia Posts with Correlated Words Used to Highlight the Topic and Redacted Illustrative Examples.

Category / Theme	Operational Definition	Cohen's D	Correlated Words	Redacted Illustrative Posts
Physician Experience	Posts surrounding relationship between members of the care team and patients	0.389	Anesthesia, surgery, procedure, sedation, anesthesiologist, patient, anesthetic, surgeon, pain, experience	Hello everybody, I underwent a procedure this morning while sedated. I came and read the pinned post in this subreddit since I had been worrying about it for weeks, and it truly helped me relax. I generally struggle with quite severe anxiety relating to my health. While getting ready this morning, I was still a little on edge, but my amazing and caring anesthesiologist basically informed me that given my health, she wouldn't even bother describing extreme risks; she only said that I might feel nauseous and have a sore throat after. I was asleep with one of the nurses holding my hand, and when I awoke, I was overjoyed. After roughly 4 hours of being awake, I feel great! The fear of the unknown made me worried, but I now get that it is truly okay. Thank you for your help across this forum.

Medication	Posts surrounding medication administration	0.365	Patient, risk, blood, propofol, dose, patients, anesthetics, pressure, drug, higher	Why does the white IV fluid hurt when it is inserted? I'm not sure what it was, but it quickly reached my brain and knocked me out in minutes Too bad it HURT LIKE HELL on my arm. Has Reynaud's been linked to this? I really struggle with that. What was this fluid, and why did they claim that some feel pain with it and others don't?
Health Care Infrastructure	Posts including various members of healthcare industry as a whole	0.336	CRNA, work, practice, school, medical, experience, states, nurse, job, hospital	I am currently completing a respiratory therapy AA program in California. I am very interested in pursuing anesthesia of some kind, and I am deciding between going to medical school to become an anesthesiologist, moving out of state to become an anesthesiology assistant, or returning to nursing school after I graduate from respiratory school and possibly pursuing a CRNA in the future. Can someone please describe the distinctions between the roles in terms of autonomy and the duties of each job?
Procedures	Posts surrounding specific procedures requiring anesthesia administration	0.304	Surgery, pain, block, body, nerve, heart, hospital, hours, spinal, epidural	I'm going to have a tummy tuck, and I read an article about someone who had general anesthesia and woke up, but they were paralyzed from the medication given along with the general anesthetic, so they couldn't tell anyone they were awake. I'm very scared right now! This surgery takes six hours! I hope I don't wake up during any of it, but if I do, I'd like to know how to let someone know so they can put me back to sleep!
Personal Inquiries	Posts including direct questions regarding anesthesia	0.201	Question, future, important, making, fact, learn, true, difficult, situation, personal	I have a cardiac problem and have a procedure tomorrow. I'm seeking feedback before scheduling this sedated procedure. For the last few years, I've experienced a persistent cough, shortness of breath, and periodic chest discomfort that feels like a heart attack (along with pain in my left arm, jaw, and back), as well as irregular heartbeats while lying down....I'm worried that because I'm unsure of whether I have a problem or not, I won't know whether I should be sedated for the surgery until I get more information. Even though it's a colonoscopy and not surgery, I'm worried.
Uncertainties	User posts regarding patient worries and fears	0.147	I'm, don't, shit, stop, smoking, give, smoke, week, anxiety, die	Help me. I spent three weeks without doing any drugs. A friend of mine invited me out to drinks last Thursday (also something I must stop, but anyway). I let him know that I stopped doing drugs and that I needed to keep clean (especially for two weeks) since I am scheduled to undergo major surgery on April 15... Does anyone here have any information on whether I should be able to have the surgery? Has anyone ever smoked meth and felt sick afterwards?

Key words: Social Media; Facebook, Reddit; Twitter, Anesthesia.