

Trends in Preoperative Self-Disclosure of Cannabis Use in Adult and Adolescent Orthopedic Surgical Patients: An Institutional Retrospective Study

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Abstract : Background & Significance: The increasing prevalence of cannabis use in the United States has important safety considerations in the perioperative setting, as chronic or heavy preoperative cannabis use may increase the risk of intraoperative complications, postoperative nausea and vomiting (PONV), increased postoperative pain levels, and acute side effects associated with cannabis use cessation. In this retrospective chart review study, we sought to determine the prevalence of self-reported cannabis use in the past 5-years at a single institution in New York City. We hypothesized that there is an increasing prevalence of preoperative self-reported cannabis use among adult and adolescent patients undergoing orthopedic surgery. Methods: After IRB approval for this retrospective study, surgical cases performed on patients 12 years of age and older at the hospital's main campus and two ambulatory surgery centers between January 1st, 2018, and December 31st, 2023, with preoperatively self-disclosed cannabis use entered in the social history intake form were identified using the tool SlicerDicer in Epic. Case and patient characteristics were extracted, and trends in utilization over time were assessed by the Cochran-Armitage trend test. Results: Overall, the prevalence of self-reported cannabis use increased from 6.6% in 2018 to 10.6% in 2023. By age group, the prevalence of self-reported cannabis use among adolescents remained consistently low (2018: 2.6%, 2023: 2.6%) but increased with significant evidence for a linear trend ($p < 0.05$) within every adult age group. Among adults, patients who were 18-24 years old (2018: 18%, 2023: 20.5%) and 25-34 years old (2018: 15.9%, 2023: 24.2%) had the highest prevalences of disclosure, whereas patients who were 75 years of age or older had the lowest prevalence of disclosure (2018: 1.9%, 2023: 4.6%). Patients who were 25-34 years old had the highest percent difference in disclosure rates of 8.3%, which corresponded to a 52.2% increase from 2018 to 2023. The adult age group with the highest percent change was patients who were 75 years of age or older, with a difference of 2.7%, which corresponded to a 142.1% increase from 2018 to 2023. Conclusions: These trends in preoperative self-reported cannabis use among patients undergoing orthopedic surgery have important implications for perioperative care and clinical outcomes. Efforts are underway to refine and standardize cannabis use data capture at our institution.

Keywords : orthopedic surgery, cannabis, postoperative pain, postoperative nausea

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