



In the Weeds: Nation's First Guidelines for Management of Perioperative Patients on Cannabis

Kim Sumrak

Whether due to legalization, culture change, or other reasons, Americans have been using more cannabis over the past 20 years. According to the U.S. Substance Abuse and Mental Health Services Administration, it's the most commonly used recreational drug in the U.S., with about 10% of Americans reporting monthly use in 2018 (asamonitor.pub/33PVpBL). It ranks second only to alcohol as the most common psychotropic substance. While it may be years until there's clear consensus on the health implications of cannabis, some in the anesthesiology community have concerns that it could potentially interact with anesthesia and lead to surgical complications. Addressing the ambiguity on how to manage these patients, the American Society of Regional Anesthesia and Pain Medicine (ASRA Pain Medicine) charged a special task force to develop guidelines for the perioperative use of cannabis in November 2020.

The Perioperative Use of Cannabis and Cannabinoids Guidelines Committee, composed of 13 panelists, was tasked with drafting responses to nine key questions posed. The multidisciplinary group included those in the fields of cannabis research, acute pain, chronic pain, anesthesiology, psychology, obstetrics, neurology, and patient advocacy. The experts on the panel separated this guideline document from any other review that was completed prior.

Three years later, after extensive research, literature searches, countless revisions, and approval cycle, the guidelines were published online (asamonitor.pub/3RPOLKB). The guidelines' 21 recommendations achieved full consensus. The published report provides expertise

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Management of the Perioperative Patient Using Cannabis or Cannabinoids

- Evidence-based recommendations based on extensive literature review and experience of a 12-member expert panel
- Panel consisted of anesthesiologists, chronic pain physicians, and a patient advocate and used a modified Delphi method
- Nine questions and 21 recommendations, all with 100% consensus



Figure: ASRA Pain Medicine consensus guidelines on the management of the perioperative patient on cannabis and cannabinoids: an infographic. (*Reg Anesth Pain Med* 2023;48:119).

on topics including perioperative screening, postponement of elective surgery, concomitant use of opioid and cannabis perioperatively, implications for parturients, adjustment in anesthetic and analgesics intraoperatively, postoperative monitoring, cannabis use disorder, and postoperative concerns.

Lead researcher Shalini Shah, MD, Vice Chair of Anesthesiology at the University of California at Irvine School of Medicine, highlights the significance of these guidelines, as they are the nation's first to shed light on the emerging issue of

cannabis use among patients presenting for surgery. ASA is among the organizations proclaiming agreement with their recommendations. While these are not intended to replace clinical judgement, they're an important first step in opening the lines of communication between patients and physicians.

Recommendations receiving the highest level of evidence include:

Universal screening should be performed prior to surgery

Physicians should ask patients about their cannabis use before undergoing procedures requiring anesthesia. During the pre-screening, anesthesiologists should question:

- Varietal of cannabis product
- Consumption time
- Route of administration
- Amount
- Frequency of use.

It should be noted that this recommended screening is *not* the same as toxicology screening, which involves analysis of urine or blood. Toxicology screening is not routinely suggested unless the patient presents with acute intoxication.

This process of universal screening is extremely important and requires talking to the patient from a non-judgmental standpoint, as interpretation of the question posed by the physician can be key. For example, asking about drug use can lead to a patient replying "no," as the medical cannabis they're taking isn't considered the same in their mind. Cannabis should be mentioned specifically through a targeted question to obtain the correct information. Most preoperative questions are heavily derived from standard electronic forms, so the chance of the cannabis question being asked is low. However, the more the question is built in, the more it's documented.

"Before surgery, anesthesiologists should ask patients if they use cannabis – whether medicinally or recreationally – and be prepared to possibly change the anesthesia plan or delay the procedure in

certain situations," said Samer Narouze, MD, PhD, senior author and Immediate Past President of ASRA Pain Medicine. "They also need to counsel patients about the possible risks and effects of cannabis. For example, even though some people use cannabis therapeutically to help relieve pain, studies have shown regular users may have *more* pain and nausea after surgery, not less, and may need more medications, including opioids, to manage the discomfort. We hope the guidelines will serve as a roadmap to help better care for patients who use cannabis and need surgery."

Elective surgery should be postponed in patients who have altered mental status or impaired decision-making capability

Anesthesiologists are progressively being confronted with perioperative cannabinoid use and need guidance on when to change the anesthesia plan before surgery or delay the procedure. Although most patients on cannabis can have small elective surgeries with no complications, a subset of patients is at potential increased risk for negative postoperative complications and outcomes.

Acute effects of cannabis use can result in altered mental state and impairment of decision-making capability. Therefore, being aware of the frequency and timing of the last dose is important. Specifically, smoking cannabis can negatively affect airway resistance and cause cardiovascular morbidity, so delaying surgery for up to two hours after smoking cannabis is recommended.

Frequent, heavy users should be counseled on the potentially negative effects of cannabis use on postoperative pain control

Managing pain postoperatively is imperative, and chronic cannabis use can worsen postoperative pain and nausea, increase opioid usage, and even heighten postoperative hyperalgesia. As regular users may require medications such as opioids to manage recovery room discomfort, the cross-tolerance between cannabis and opioids presents a hurdle, so other approaches like multimodal analgesia and regional anesthesia may be needed. Low-dose, medically supervised cannabis use likely has a lower risk of negative effects.

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Pregnant patients should be counseled on risks of cannabis use

Pregnant patients should be educated about the risks of maternal cannabis use on the fetus. Cannabinoids are the most common addictive substances

used by pregnant women, and usage is rising. The effects of cannabis use during pregnancy may include an increase in the odds of anemia, low birth weight, premature birth, need for NICU services, and altered brain development.

In addition to the aforementioned points, the guidelines outline 17 additional recommendations for perioperative management of cannabis.

The ASRA Pain Medicine committee concurs that the medical, social, and political landscape of cannabis is fluid, changing on an almost daily basis. As cannabis use in the perioperative setting can have potential negative medical implications, patient safety is the main driver for this document. Surgery is a high-stress, high-risk period, and when cannabis use is added it's impor-

tant to understand how patients should be counseled, how cannabis changes the landscape, and what the expectations are. Given the dynamic situation, it will be important to critically evaluate the guidelines and update, if necessary, through newly released publications, research, and additional data, with a continued goal of providing optimal patient care. ■

Residents' Review: Critical Care with Limited Resources

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decision support systems to reduce mortality (*Nat Med* 2018;24:1716-20; *BMJ Glob Health* 2019;4:e001675). Such technologies, however, should be rolled out with extended user training, biomedical support, and continuous supplier access. To bridge the gap between utilization of innovative technologies and available devices, the authors are working with local partners in Bolivia to improve outcomes in neurotrauma, in settings where invasive intracranial pressure measurements are not possible, by utilizing other accessible tools to improve patient monitoring.

The expansion of research and health information systems is needed to collect and integrate reliable data on capacity,

resources, and clinical outcomes of intensive care in LMICs. National or regional registries provide invaluable data to quantify the scale of critical care needs, identify disparities in care, and inform solutions and quality improvement efforts to enhance performance. Large-scale health information system models and collaborative databases have been created to enable data-sharing and guide local research (*Wellcome Open Res* 2022;6:251; *Intensive Care Med* 2023;49:772-84). Additionally, implementation studies can demonstrate the feasibility of clinical applications and interventions that can be used in other similar resource-limited settings.

Training initiatives and education can increase the critical care workforce and improve ICU capabilities in LMICs. In one survey of ICU workers in resource-limited settings, formal training of ICU staff and

increasing the number of ICU nurses were perceived to be among the most valuable strategies for capacity development (*J Crit Care* 2018;44:352-6). Staff from high-income countries can provide long-term value through educational partnerships that create sustainable changes in clinical practice. Online networks and platforms now enable tele-education and virtual training courses (*Crit Care* 2019;23:220). Programs such as the EECC Network™, the Open Critical Care Project™, Basic™, StanesGlobal™, and others have been developed to create freely available resources to support providers from resource-variable settings. As a practical example, in Uganda, the authors have successfully integrated these programs into short-course trainings for both nurses and junior physicians to expand the skills of frontline workers in areas with severe provider shortages.

Improving critical care capacity is a global health priority that enhances care and saves lives. Due to the significant resource constraints and heterogeneity of care systems in LMICs, strategies require a multifaceted approach to develop quality critical care services. Key priorities include context-specific clinical innovation, expanding research and data systems, advocacy, and training initiatives to improve workforce capabilities. ■

Disclosure: Dr. Bulamba receives an honorarium through his work as a clinical trainer for Gradian Health Systems.

Interested in submitting an article to the Residents' Review? Contact the editors at residentcomponent@asahq.org.



Call for Nominations: ASA Award for Excellence in Research and James E. Cottrell, MD, Presidential Scholar Award

Anesthesiology is seeking nominations for the 2024 ASA Award for Excellence in Research and 2024 James E. Cottrell, MD, Presidential Scholar Award. Awards will be presented during the Celebration of Research at ANESTHESIOLOGY® 2024.

The annual ASA Award for Excellence in Research recognizes an individual for outstanding achievement in research that has or is likely to have an important impact on the practice of anesthesiology. The individual's work must represent a body of original, mature, and sustained contribution to the advancement of the science of anesthesiology. Nominees need not be a physician,

an anesthesiologist, or a member of ASA but must be presently engaged in research related to anesthesiology, academically accomplished with peer-reviewed publications and funded research, and nominated in response to a call for nominations.

The James E. Cottrell, MD, Presidential Scholar Award recognizes colleagues who dedicate their formative careers to research. Anesthesiologists who are within 10 years of their first appointment to a department of anesthesiology, who are board-certified in their country of practice, who are ASA members, and who are clinically active in anesthesia, intensive care, or pain medicine are eligible for the award. Candidates

should be nominated by their department chair or by the ASA Committee on Research.

The deadline for award nominations is March 31, 2024. Please submit nominations or any questions regarding these

awards to Managing Editor, *Anesthesiology*: managing-editor@anesthesiology.org. For further details regarding the awards, qualifications, and required materials for nomination, see pubs.asahq.org/anesthesiology/pages/call_for_nominations. ■

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