

Implications of Peri Operative Cannabis Use in Adolescents and Young Adults

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Introduction: Massachusetts legalized cannabis use for both medical and recreational use in 2014. Since then, adolescent recreational and medicinal use of cannabinoids has increased.

Identification of the Problem: There were increased requests by surgical patients post-operatively regarding resuming cannabis use post-operatively.

EBP Question/Purpose: PICO question. Databases utilized. The purpose was to understand best practice regarding post-operative pain management for patients who frequently use cannabis using the PICO question '*In adolescence and young adults (AYA), does the habitual use of marijuana versus no use increase the need for pain management interventions post-operatively?*', and the CINAHL, PubMed, Google Scholar, and Cochrane databases.

Methods/Evidence: The initial search returned 20 articles, which were critically appraised using the Johns Hopkins Evidence-Based Practice Appraisal Tool. One post-operative pain management expert opinion was obtained. In five articles, patients who reported using cannabinoids had higher pain scores, required more narcotics, and exhibited a poorer quality of sleep in the early post-operative period. Three articles found no difference in pain scores, narcotic use or length of stay for post-operative patients reporting cannabis use. These articles focused primarily on the orthopedic population, making it difficult to determine its' effects in other patient populations. Additionally, small sample sizes and older patients make the results difficult to interpret for a pediatric population. Four articles identified the multisystem effects of cannabinoids and its interaction with anesthetic agents, which may lead to serious complications for the patient.

Significance of Findings/Outcomes: There are conflicting findings regarding the use of cannabis as an effective post-operative pain management strategy and no practice change is currently recommended. However, the current available evidence can assist nurses caring for post-operative patients that utilize cannabis. Limited high quality studies were found, possibly due to the lack of federal research funding as cannabis is considered an illegal substance at the federal level.

Implications for perianesthesia nurses and future research: The evidence is useful to educate post-anesthesia care unit (PACU) nurses about how to screen for cannabis use and post-operative care considerations in the PACU setting. Considerations include the importance of eliciting and quantifying a history of cannabis use, consideration of cannabis weaning, additional post-operative nausea, vomiting prophylaxis, anticipated increased post-operative analgesic requirements, and maintaining vigilance for cannabis withdrawal syndrome. Adolescent-specific research is needed.