

# Editorial Commentary: Postoperative Analgesia After Arthroscopy: A Step Toward the Personalization of Pain Control



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**Abstract:** Identification of risk factors for prolonged opioid use is imperative as opioid misuse continues to plague society. Recent data suggest that many modifiable and nonmodifiable patient factors may be associated with prolonged opioid use after arthroscopic meniscal surgery. Surgeons and patients share the burden of the opioid epidemic and must collaborate to decrease the overall opioid burden on society. As the number of tools to treat pain and the knowledge of at-risk patients grow, standardized postoperative narcotic regimens to treat a diverse population of patients are no longer acceptable; narcotic regimens must be customized to each patient. To limit opioid use and enhance patient outcomes, it is apparent that the next frontier of postoperative pain control is upon us: the personalization of pain control.

See related article on page 2478

Postoperative pain management remains one of the most challenging aspects of patient care, particularly as the United States finds itself in the midst of an opioid epidemic. Many surgeons struggle with patient satisfaction and optimizing postoperative pain control while minimizing opioid use. To better understand postoperative pain, particularly among opioid users, it is imperative to elucidate the demographic factors that may contribute to prolonged opioid use. Khazi, Baron, Shamrock, Gulbrandsen, Bedard, Wolf, Duchman, and Westermann<sup>1</sup> must be commended for their efforts in their original article titled “Preoperative Opioid Usage, Male Gender, and Preexisting Knee Osteoarthritis Impacts Opioid Refills After Isolated Arthroscopic Meniscectomy: A Population-Based Study.” In this study, the authors confirmed previous findings that preoperative opioid use and knee arthritis are significantly associated with postoperative opioid use after meniscal surgery.<sup>2</sup> In addition, they found that diabetes mellitus, hypertension, chronic obstructive pulmonary

disease, fibromyalgia, anxiety or depression, alcohol use disorder, and tobacco use were significant risk factors for increased odds of opioid use at 12 months postoperatively whereas young age was a protective factor. This study contributes to a growing body of evidence that suggests that preoperative opioid use is correlated with prolonged postoperative opioid use.<sup>2-6</sup>

The data from this study were obtained from a large national database with each risk factor designated as a binary value.<sup>1</sup> The severity of each medical condition (e.g., hypertension, congestive heart failure, or diabetes mellitus) was not reflected in the authors’ findings. Correlating postoperative opioid use and demographic risk factor severity may help mitigate confounders and, perhaps more important, better define at-risk populations. Nonetheless, this study effectively represents a giant first step in optimizing and promoting safe, efficacious postoperative analgesia—identification of modifiable risk factors that permit perioperative patient counseling and appropriate physician-led pain initiatives.

Surgeons and patients alike must collaborate to keep patient outcomes positive and opioid consumption low. Preoperative counseling has been shown to significantly decrease opioid consumption after surgery, and surgeons must be willing to spend time counseling patients on their postoperative course.<sup>7</sup> Similarly, patients who have been desensitized to the therapeutic effects of narcotics may benefit from non-narcotic pain control modalities and

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opioid cessation prior to surgery. Surgeons must be mindful of these modifiable and nonmodifiable risk factors provided by Khazi et al.<sup>1</sup> and should spend extra time counseling these patients about their postoperative course.

Recent studies have illustrated positive results when evaluating multimodal and/or nonopioid protocols in the context of arthroscopic surgery, and it is becoming apparent that to optimize therapeutic effects while mitigating adverse effects, the “one-size-fits-all” model of postoperative analgesia is no longer acceptable.<sup>2,8-11</sup> The number of tools surgeons can use to treat pain is increasing, and the days of prescribing a standardized narcotic dose to a diverse population of patients are behind us. Pain control is burgeoning into a complex problem, requiring the surgeon to consider pain control as a gradient necessitating modulation based on demographic, medical, and intraoperative findings. Studies defining factors that contribute to prolonged postoperative opioid use are an excellent basis for surgeons to custom-tailor postoperative pain regimens. To limit opioid use and enhance patient outcomes, it is apparent that the next frontier of postoperative pain control is upon us: the personalization of analgesia.

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