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Invited Commentary

Addressing (over)prescribing of opioids in surgery



Despite numerous efforts to address opioid prescribing, misuse and abuse, the opioid crisis continues to claim around 70,000 American lives per year. In fact, during the COVID-19 pandemic increases in opioid-related mortality have been reported in at least 35 states.¹ Surgery is a potential pathway to persistent opioid use, misuse and abuse of opioids and a higher number of opioids prescribed in the perioperative period is associated with prolonged opioid use which increases one's risk of abuse and overdose.^{2,3} In addition, overprescribing of opioid pills leads to excess pills available in circulation and therefore the potential for misuse and abuse of those leftover medications by friends and family. In 2018, there were almost 10 million nonmedical users of prescription opioids and the most common source for obtaining opioids for illicit use was borrowing pills from friends and family.⁴ In this issue of the American Journal of Surgery, Santosa et al., add to the current body of literature on opioid prescribing by evaluating what characteristics of surgeons might contribute to higher prescribing.⁵ The authors used cross-sectional analyses of Medicare data combined with physician data from the American Medical Association for 15 different types of surgery.

Santosa et al., consider the possibility that specific surgeon characteristics are associated with higher prescribing. Information on these characteristics could be used to target strategic interventions to improve opioid stewardship. They find that surgeons who are early in their practice (0–7 years) prescribed the most pills with decreasing amounts associated with more years in practice. However, the actual mechanisms behind this finding remains unclear, as does the way in which it can be used to target behavior change initiatives. The authors argue that less experienced physicians may prescribe more, because they may have been inadequately educated and because of a lack of continuity of care and prescribing guidelines. Yet, it is not known why these factors would differ between surgeons with varying years of practice experience. An alternative explanation could be that perhaps early-career surgeons feel more pressure to prescribe so as not to upset their patients. Although the limitations in the data available to the authors make it hard to determine whether the variation based on surgeon characteristics points to desirable or undesirable variation, it does give several leads to sub-populations of physicians that need further investigation. Other factors that are associated with differing rates of prescribing include surgeon credentials, geographic region, and type of surgery.

While some progress has been made in decreasing surgical opioid prescribing,⁶ data also suggests that results so far are on the whole disappointing.⁷ We argue that continued efforts are needed targeting all surgical pain management practices, and a

maintained focus of quality improvement efforts across the board is essential. Optimizing pain management is complex and demands a complex response. It is critical to understand surgical prescribing within the context of the patients' needs and their perceived pain control. Although it is possible to decrease opioids for surgical procedures while maintaining pain control,⁸ for many procedures opioids will remain a necessary part of a multimodal pain control strategy. For example, within the article by Santosa, we see that the highest prescribing rates were seen in procedures that are traditionally associated with the most pain, specifically total hip replacement, total knee replacement and hemorrhoidectomy. So some portion of the variation noted by the authors was likely in response to increased patient needs.

To meet the pain management needs of our patients, sound data is needed on their pre- and post-discharge opioid use, perioperative use of non-opioid pain management strategies, and the effectiveness of our efforts should be measured with reliable measures of pain control. Some studies on surgical opioid prescribing have included these variables^{8–10} and can be useful examples for future research. Further, pain management can be optimized for patients by systematically addressing *education* on safe opioid use, storage and disposal. Patient education can improve patients' preparedness to manage their postoperative pain and lower their opioid use.⁹ Patients' ability to process and remember all the information that they receive around a surgical encounter varies widely. Educational materials need to be tailored and it is imperative that messaging is consistent across providers.¹¹ Consequently, all clinicians involved in the educational process need to be engaged in opioid optimization efforts.

To facilitate behavior change and support surgeons in the optimization of pain management practices and particularly overprescribing, continuous physician educational efforts are needed. Many states now require opioid prescribing education as part of continuous medical education for state licensure, and this is a good first step. It is also important that clinicians are aware of their own prescribing behavior relative to recommendations and the needs of their patients. We argue that collection of information on pain management after discharge should be integrated into standard postoperative care. If we don't ask patients how well their pain was controlled after surgery and how they managed their pain at home, then how will we continue to learn to optimize opioid prescribing at discharge? By studying the variation in prescribing by surgeon characteristics, Dr. Santosa and colleagues highlight our need to focus on physician-education in order to optimize postoperative pain management for patients.

Declaration of competing interest

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