Invited Commentary | Health Policy

Unintended Consequences From the 2016 US Centers for Disease Control and Prevention Guideline for Prescribing Opioids—Accelerating Change in Postoperative Prescribing

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The 2016 US Centers for Disease Control and Prevention (CDC) guideline for prescribing opioids for chronic pain represented a landmark publication in efforts to align the clinical prescribing of long-term opioids by primary care clinicians with evidence-based recommendations.1 When published in March 2016, editorials commended the recommendations and review of the data, which were noted to be the first of their kind, albeit low in overall quality of evidence. While the report was lauded by many as a critical step toward reducing opioid-related morbidity and mortality, concern emerged regarding the potential misapplication of the guidelines. Reports of patients harmed due to clinicians ineffectively managing patients’ pain, suddenly discontinuing long-term opioids, or stopping prescribing opioids altogether followed in subsequent years and have led to scrutiny from patient organizations, professional societies, prescribers, and policy makers.

With this background, Sutherland and colleagues2 examined the association of the 2016 CDC guideline with changes in opioid prescribing to treat acute pain in the context of surgery. Opioid treatment for postoperative pain was specifically labeled as “outside the scope” of the guideline, although 1 recommendation on acute pain suggested using the lowest effective dose for the shortest period of time, typically not more than 3 days. Given the widespread attention of clinicians to the guideline combined with these recommendations on acute pain, the authors assessed how opioid dispensing changed for patients undergoing surgery. The analysis focused on patients with private insurance who underwent 1 of 8 general or orthopedic surgical procedures, including many of the most commonly performed surgical procedures in the United States. Opioid prescriptions from 2 years before the release of the CDC guideline were compared with those 2 years after publication. Among patients filling an opioid prescription after surgery, the initial amount of filled opioids decreased after the release of the guideline. This decrease in opioid prescribing was observed when measured as either total amount of opioids or days’ supply. The authors demonstrated the robustness of these findings through several sensitivity analyses, with similar trends observed across multiple procedures and varying aspects of the model, including adjusting for certain patient-level variables.

This investigation provides an important perspective on potential unintended consequences of the 2016 CDC guideline. Reductions in opioid prescribing raise concerns for the potential undertreatment of pain in any setting, including after surgery. Although patient-reported outcomes were not available, 2 findings in the prescribing data suggest that this was not the case. First, rates of refills continued to decline after the guideline release, albeit at slightly slower rates. Second, the amount of opioids prescribed continued to be high, with fewer prescriptions much higher than recommended prescribing amounts from the Michigan Opioid Prescribing Engagement Network and 3 other published guidelines. Prescribers may have considered alternatives to opioid medications in the form of relying on over-the-counter analgesics, such as nonsteroidal anti-inflammatory drugs and acetaminophen, in treating acute pain, when they may not have considered them before. In this context, the 2016 CDC guideline for chronic pain may have provided an unexpected benefit to surgical patients by accelerating the alignment of opioid prescribing with amounts recommended in surgery-specific prescribing guidelines.
Nonetheless, much room for improvement remains. Notably, the amount of opioids filled by patients after surgery remained high during all years of the study period, and higher than amounts used that are reported by patients in a number of studies. Excess prescribing is associated with prolonged use after surgery and the conversion to chronic use; it also contributes to the surplus of pills available for diversion. In fact, use of opioids for more than 90 days after surgery occurs among a substantial minority of patients, and duration of prescription is linked to misuse. Balancing the effectiveness of prescription opioids for acute pain is challenging given risks, such as new prolonged use of opioids, misuse, and other outcomes that may lead to opioid use disorder. Efforts to optimize prescribing that guard against the undertreatment of pain may take a variety of forms, including relying on patient-reported outcomes measured before, during, and after interventions.

Going forward, these guidelines provide one of the first steps in changing the narrative that surrounds pain management, and acute pain management in particular, in the United States. Numerous studies have demonstrated that the United States is among the highest prescribers and consumers of opioids compared with our global peers. We would not expect that the experience of pain after surgery would be different by geography alone; thus, addressing the cultural norms, perspectives, and biases that surround pain management is critical to optimize care. In the United States, the growing trend for outpatient care, shorter inpatient stays, and limited leave from professional and caregiver roles may create added burden on postoperative recovery. Creating the space and time for recovery from surgery can enable a smoother and more comfortable experience with pain management. In addition, setting expectations regarding postoperative pain and management is critical, as is reassuring patients that controlled pain is a normal part of recovery following an acute injury or procedure. Finally, adopting pain management strategies that rely not only on pharmacologic alternatives, but also nonpharmacologic techniques, such as relaxation, yoga, and mindfulness, can provide a comprehensive and safe approach to recovery.

The study by Sutherland and colleagues has revealed a promising trend of improved opioid prescribing after commonly performed surgeries for some groups of patients in response to the publication of the 2016 CDC guideline on opioid prescribing for chronic pain. Policy efforts and research programs need to prioritize the development of stronger levels of evidence for both acute and chronic pain treatment, including opioid prescribing after surgery. The study’s findings provide some welcome news about the outcomes associated with the 2016 CDC guideline, although they also serve as a call to action for the surgical, perioperative, and pain medicine communities to improve pain care and opioid prescribing after surgery.
Institute of Alcohol Abuse and Alcoholism and grants from Michigan Department of Health and Human Services during the conduct of the study.

REFERENCES


