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Opioid Prescribing After Surgery—Cause for Concern?

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There has been an intense focus on the increase in long-term prescribing of opioids for the management of chronic nonmalignant pain and the potential harms arising from this, such as addiction, dependence, and overdose. The International Association for the Study of Pain released a position statement on opioid use[1] to reflect these concerns. Many countries, including the United States, are attempting to reduce opioid use, including reducing the initiation of opioid therapy.[2] The reasons for the increase in opioid prescribing are complex, with concerns raised about the potential contribution of opioid prescriptions after surgery.[3] The study by Ladha et al[4] is timely, using large retrospective clinical databases to explore differences in dispensing opioid medication after surgery in the United States (national commercial insurance database), Ontario, Canada (provincial public health coverage databases), and Sweden (national public health coverage databases). The primary outcome was the proportion of patients receiving at least 1 opioid prescription within 7 days after hospital discharge following 4 common surgical procedures (ie, laparoscopic cholecystectomy, laparoscopic appendectomy, knee arthroscopy with meniscectomy, and partial breast excision). Large variations were found, with approximately 79% of patients in Canada, 76% in the United States, and 11% in Sweden receiving dispensed opioids.[4] This was relatively consistent among different types of surgery, and a sensitivity analysis found no difference between inpatient and outpatient surgery, despite longer lengths of stay being more common in Sweden. Furthermore, regardless of the type of opioid, the morphine milligram equivalent (MME) was highest in the United States (approximately 250 MME compared with 200 in Sweden and 170 in Canada, with a wide range of prescribed doses within each country).[4] While opioid dispensing for 30 days after surgery showed a similar pattern as dispensing in the 7 days after surgery (United States, 78% of patients filled a prescription for opioids; Canada, 79%; Sweden, 12%), a slightly different pattern was seen for those receiving high doses (>200 MMEs). Approximately 13% of patients in the United States, 13% in Sweden, and 7% in Canada received opioid prescriptions of more than 200 MMEs.[4] The study by Ladha et al[4] highlights significant variations among countries for postoperative opioid use.

The reasons for this large variation need to be understood to effectively address inappropriate prescribing without adversely affecting pain control. It is important that short-term pain in the perioperative period be managed properly. The adverse effects of poorly controlled pain after surgery are well recognized; they include increased risk of persistent pain and delayed recovery.[5] Evidence-based efforts to improve outcomes after surgery, such as the Enhanced Recovery After Surgery approach,[6] also require good analgesia to allow for early mobilization and discharge from the hospital. Multimodal analgesia, using a range of targeted analgesic approaches, is part of this. While this can reduce overall opioid requirements, opioids do still remain an important element in providing effective short-term pain control. A component of successful early discharge is supplying effective analgesia, and this often includes opioids. These dispensed opioids are often not all used, with recommended disposal methods rarely being used.[7] We need to consider whether a potential consequence of this has been to increase the amount of opioids available in the community setting, with the potential for diversion and misuse.

To reduce opioid-related harms without adversely affecting pain control, we need to carefully analyze what factors might contribute to the large geographical variation in prescribing, how these factors might be modified, and what the consequences of these modifications might be. A simplistic approach to reducing opioid prescriptions or use may have unintended consequences, including

increased chronic pain and/or increased illicit opioid use. Individual factors relating to patients and health care practitioners, such as expectations, personal beliefs around opioid use and pain management approaches, education, health literacy, genetic variation in opioid response, and individual pathophysiology, as well as wider factors, such as differences in health care systems and clinical practice (eg, indications for surgery, type of surgery and anesthesia used, analgesia protocols), discharge policy, economic and financial factors, cultural variation, and societal expectation, need to be considered. It is essential that any changes take these factors into consideration so that optimal perioperative analgesia is provided with minimal risk of long-term harm, including inappropriate continued opioid use. We need to examine how best to provide multimodal, effective perioperative analgesia, which may include approaches that minimize opioid use or novel analgesics that act on opioid systems (eg, biased agonists) but with reduced risk of tolerance and dependence.[8] Education around the use of opioids and potential harms is also essential, for both patients and health care professionals. Additionally, having robust systems in place that will allow early identification of problematic or prolonged use (eg, through prescribing and dispensing databases or screening tools) with a clear pathway to early review are needed.

The large geographical variation demonstrated by Ladha et al[4] illustrates the importance of considering relevant factors locally, nationally, and internationally, particularly when these factors are being used to inform health care policies. Going forward, further high-quality, country-specific research is needed to ensure that opioids are used appropriately, when needed, and as part of a structured pain management plan while the known harms that may be associated with opioid use are minimized.

ARTICLE INFORMATION

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