

Opioids and Orthopaedic Surgical Practice

COA Position Statement Opioids and Orthopaedic Surgical Practice

As the annual number of deaths attributed to opioid overdose in Canada continues to rise, there is increasing attention to the availability of opioids, whether obtained through prescription or illicit acquisition.

The contribution of surgeons to the opioid crisis is an area of concern to all surgical specialty societies, as surgeons are responsible for writing 60% of "new start" opioid prescriptions (for patients who have not filled an opioid prescription in the preceding 6 months) [1]. In addition, 8% of high-dose (> 90 morphine mg equivalents per day (MED)) new starts and 25% of medium-dose (51 – 90 MED) new starts are prescribed by surgeons. Furthermore, 12% of new start prescriptions written by surgeons have a duration of more than seven days [1]. The risk of a new start patient becoming a chronic opioid user is estimated to be five percent [2].

The COA encourages all orthopaedic surgeons to have an in-depth understanding of their own role in safe and effective pain management for the wide variety of musculoskeletal conditions which they treat. This includes the role of prescription opioids in the spectrum of pharmaceutical and non-pharmaceutical options for pain management.

The COA supports the use of the WHO three-step analgesic ladder approach to pharmacological management of acute pain. [3]

- Step 1: Non-opioids e.g. Acetaminophen / ASA / NSAIDs
- Step 2: Weak opioids e.g. Codeine / Tramadol
- Step 3: Strong opioids e.g. Hydromorphone / Morphine / Oxycodone

Non-pharmacological treatments should also be considered in helping a patient deal with acute pain. These would include evidence-based treatments for the particular condition being managed (ie. physiotherapy, chiropractic, injections). Adjuvant medications such as muscle relaxants, gabapentinoids and anxiolytics, should also be considered in order to reduce the use of opioids.

The COA supports "The 2017 Canadian Guideline for Opioids for Chronic Non-Cancer Pain", recently published in the CMAJ [4]. While there is considerable current interest in avoiding opioid over-prescribing in the management of acute pain, whether of spontaneous onset or related to injury, trauma or surgery, no similar guidelines to those for chronic non-cancer have been developed. The development of dosing and duration guidelines is a particular challenge in the practice of orthopaedics, given the broad spectrum of conditions managed under the orthopaedic umbrella.

Access to MSK care remains an issue with respect to prescription of opioids. Patients who are candidates for an evidence-based orthopaedic intervention that could result in significant pain reduction (ie. total hip replacement) but need to wait an unacceptable length of time for this intervention may end up being prescribed opioids to control their pain pending assessment and management. Opioids are, and will continue to be, an important category of medications prescribed by orthopaedic surgeons for management of severe pain, whether of surgical or non-surgical origin.

Post-surgical pain management and medication prescribing, of necessity, varies significantly in orthopaedic practice. Surgeons should take into consideration the anticipated pain severity and duration associated with the procedure(s) performed when prescribing analgesics. The majority of Canadian orthopaedic surgeons who responded to the 2017 COA Pain Management Survey supported limiting the initial post-discharge opioid prescription to a maximum of two weeks, even for procedures anticipated to be associated with severe pain.

Reduction in postoperative opioid use has been reported in the literature for a variety of orthopaedic procedures performed under regional anesthesia, or in association with local infiltration techniques. Surgeons are encouraged to discuss these options, if not already available, with the anesthetists in their hospital.

Collaboration with the Acute Pain Service (APS) in the hospital can be of considerable assistance in prescribing post-discharge medications based on the patient's response to medications used in hospital, especially in patients who are not narcotic naïve. The majority of Canadian orthopaedic surgeon survey respondents supported the use of multimodal analgesia (MMA).

Poor or inadequate management of acute pain is recognized as an important factor leading to the development of chronic pain. Opioids remain an important element in the armamentarium available to orthopaedic surgeons to assist their patients to achieve symptom resolution and optimal recovery.

Potential significant risks of taking opioids include addiction, death from overdose (intentional or unintentional), respiratory depression (especially with concurrent obstructive sleep apnea), and depression. For elderly patients, opioid-induced falls and the associated consequences are a particular concern, especially if opioids are taken at night.

There is a reported higher risk of both physical dependence and withdrawal symptoms for people who take opioids for more than seven days. Withdrawal symptoms can occur even after a short course of opioids. These include anxiety, insomnia, hallucinations, excessive sweating, muscle aches or cramping and gastrointestinal symptoms of diarrhea or vomiting. Patients should understand that withdrawal symptoms can last a week or more. Surgeons may wish to consult with the APS for advice for patients with severe withdrawal symptoms.

The COA encourages all orthopaedic surgeons to:

- Familiarize yourself with "The 2017 Canadian Guideline for Opioids for Chronic Non-Cancer Pain".
- > Consider evidence-based non-pharmacological treatments (e.g. physiotherapy, chiropractic, injections as appropriate) in helping a patient deal with acute pain.
- > Take into consideration the anticipated pain severity and duration associated with the procedure(s) performed when prescribing analgesics.
- > Follow the WHO three-step analgesic ladder approach to pain management.
- Consider adjuvant medications in order to reduce use of opioids, including muscle relaxants, gabapentinoids, and anxiolytics.
- Consider medication interactions when combinations of medications are prescribed and seek advice from the dispensing pharmacist to avoid side-effects.
- Avoid prescribing an initial post-discharge opioid prescription exceeding two weeks in duration, even for procedures anticipated to be associated with severe pain, except in extreme cases.
- > Ensure that in situations in which a patient continues to report pain of significant severity beyond the anticipated timeframe of pain subsidence, re-assessment of the patient by the

- surgeon or general practitioner is considered, particularly if the first routine post-surgical follow-up visit is not imminent.
- Consult with the hospital Acute Pain Service (APS), where it exists, for assistance with multimodal analgesia and in prescribing post-discharge medications, especially in patients who are not narcotic naïve.
- > Ensure that all patients who are prescribed opioids are advised about the risks of taking opioids and the potential for withdrawal symptoms.
- Minimize diversion of opioid medications, especially related to children, who are particularly vulnerable to the risks of overdose, possibly leading to death, by advising patients and family members regarding:
 - Safe storage of medications in order to avoid inappropriate access to opioids, including child-proof container and location.
 - Proper handling of unused medication, which should be returned to the pharmacy for appropriate disposal at the patient's earliest convenience following discontinuation of use.

The COA is committed to working with its membership, in association with other provincial and national organizations, to continue to strive to offer the best orthopaedic care for all Canadians. Please contact policy@canorth.org with any comments.

References

- Health Quality Ontario. Starting on Opioids: Opioid prescribing patterns in Ontario by family doctors, surgeons, and dentists, for people starting to take opioids. Toronto: Queen's Printer for Ontario; 2018 [cited 2018 June 13]. Available from: http://www.hqontario.ca/System-Performance/Specialized-Reports/Starting-on-Opioids-in-Ontario
- Goesling J, Moser SE, Zaidi B, Hassett AL, Hilliard P, Hallstrom B, et al. Trends and predictors of opioid use after total knee and total hip arthroplasty. Pain [Internet]. 2016 June [cited 2018 June 13]; 157(6): 1259-1265. Available from: https://insights.ovid.com/crossref?an=00006396-201606000-00012
 DOI: 10.1097/j.pain.00000000000000016.
- 3. World Health Organization. Cancer pain relief . Geneva: WHO, 1986. Available from: http://apps.who.int/iris/bitstream/handle/10665/43944/9241561009_eng.pdf
- Busse JW, Craigie S, Juurlink DN, Buckley DN, Wang L, Couban RJ, et al. Guideline for opioid therapy and chronic noncancer pain. CMAJ [Internet]. 2017 May 08 [cited 2018 June 13];189 (18):E659-E666. Available from https://doi.org/10.1503/cmaj.170363