

# Clinical Indications for Opioid Initiation

Patients who start opioids for postsurgical and musculoskeletal pain receive prescriptions that are of higher doses and longer durations, respectively

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## Background

### Why is this important?

- Opioids are a group of drugs used to relieve pain from various conditions including joint, back, post-surgical and dental pain. Yet, the use of opioids has been associated with an increased risk of adverse events including fatal and non-fatal overdoses, falls, fractures and injuries in motor vehicle accidents.
- In order to inform strategies around ways to reduce potentially inappropriate and high-dose prescriptions, it's important to understand the clinical reasons for why people are prescribed an opioid and how this may vary by medical condition.

### What were we investigating?

- The type of clinical indications that lead individuals to start opioids for pain management, as well as the characteristics of both patients and the initial prescription.

## Study Details

### How was the study conducted?

- We conducted a population-based retrospective cohort study of all Ontarians who newly received an opioid for pain management between April 1, 2015 and March 31, 2016.
- We identified the apparent clinical indication for starting opioids by linking prescription drug claims to procedural and diagnostic information from recent health service records.
- Outcomes included initial opioid type, prescription duration and daily dose (in milligram morphine equivalents, MME), stratified either by indication or indication cluster.

### What did we find?

- Among new opioids users (N=653,993), the vast majority (N=644,762, 98.6%) received an immediate-release prescription and the most common opioids prescribed were immediate-release codeine combination products (N=343,094; 53.2%).
- We were successfully able to identify the pain indications for 575,512 (88.0%) of people initiating opioids. Individuals were grouped into the following clinical indication clusters: dental (23.2%); postsurgical (17.4%); musculoskeletal (12.0%); trauma (11.2%); and cancer/palliative care (6.5%).
- 17.7% of new starts were for less frequent indications such as abdominal/pelvic pain (6.0%), infection (2.9%), kidney and gallstones (2.3%), non-surgical deliveries (0.9%), and headaches/migraines (0.8%).
- The majority of patients starting an opioid for dental pain received their prescription from a dentist (144,118, 94.9%) and received a low daily dose (median 30 MME, Q1-Q3 of 23-45) for a short duration (median three days, Q1-Q3 of 3-5).
- Individuals with postsurgical pain received the highest daily doses at initiation (40.5% with greater than 50 MME), and those with musculoskeletal pain received longer initial prescriptions (34.2% with a duration exceeding 7 days).



## Key Points

- Dental pain accounted for nearly **1 in 4** of all new opioid prescriptions which were generally of short duration and low dose.
- **1 in 6** new opioid users were treated for postsurgical pain. These individuals generally received shorter initial prescriptions, but with a higher dose.
- **1 in 10** patients started opioids for musculoskeletal (back, joint, or muscle) pain. These patients generally received longer duration initial opioid prescriptions.

## Recommendations

### Policymakers

- Future efforts to address appropriate prescribing should consider observed differences in prescribing practices between clinical indications.
- These findings can be used to inform future resource allocation and improved access to non-drug alternatives for pain management.

### Physicians

- As we aim to optimize prescribing, patients' first opioid prescriptions are critically important. Prescribers should carefully consider a patient's first opioid dose and duration.

### Patients

- If you have recently been prescribed an opioid, talk to your doctor about your prescribed dose and when it might be safe and appropriate to discontinue your medication.

## For more information

Pasricha S et al. Clinical indications associated with opioid initiation for pain management in Ontario, Canada: A population-based cohort study. PAIN, 2018.

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