

# Opioids for the Treatment of Pain

Canada is in the midst of an opioid crisis. Like many organizations across the country, CADTH has made addressing the opioid crisis a top priority. In the last year, we have delivered a large body of evidence to inform decisions on effectively treating opioid use disorder and how we use drug and non-drug interventions to help patients manage pain. But in doing so, we've also revealed some significant gaps in the evidence — areas where evidence is needed but where little or no high-quality evidence can be found.

**Knowing where these gaps in the evidence exist can help researchers and research funding bodies better focus their efforts on opioid research and the management of pain.**

Following, you'll find a list of gaps in evidence related to the use of opioids in the treatment of pain that we've identified while carrying out recent rapid reviews through our **Rapid Response Service**.

Other publications in this series will highlight gaps in areas also important to the opioid crisis including *Treating Opioid Use Disorder*, *Chronic Pain Management: Pharmacologic Treatments (Non-Opioid)*, *Chronic Pain Management: Non-Pharmacologic Treatments*, and *Acute Pain Management: Non-Opioid Treatments (Pharmacologic and Non-Pharmacologic)*.

For more information about the CADTH response to the opioid crisis and our evidence, please visit [cadth.ca/opioids](https://cadth.ca/opioids) and [cadth.ca/pain](https://cadth.ca/pain).

It's important to note that these gaps in evidence have been compiled from multiple CADTH reports from 2014 to the end of 2017. For more details on each identified gap, consulting the full CADTH report is highly recommended. Depending on the date of the report, additional evidence may now be available that addresses the research gaps, as well as evidence from other organizations. And because of the methods used for rapid reviews, it is possible that evidence that could potentially address the research gaps may not have been included.

## Buprenorphine for Chronic Pain (2017)

### Evidence Requested for Decision-Making

- Clinical effectiveness and safety of buprenorphine for chronic pain
- Clinical effectiveness of buprenorphine daily doses greater than 24 mg compared with buprenorphine daily doses of 24 mg or less
- Clinical effectiveness of buprenorphine when tapering opioid doses for adults with chronic pain

### What We Found

- Buprenorphine results in modest pain reductions in adults with chronic non-cancer pain compared with placebo.
- There is no evidence that other opioids are superior to buprenorphine for treating chronic non-cancer pain.

### Evidence Gaps

*What We Did Not Find*

High-quality evidence evaluating buprenorphine compared with other opioids for various types of chronic non-cancer pain

High-quality evidence evaluating the relative harms of buprenorphine compared with other opioids for chronic non-cancer pain

A recent systematic review and meta-analysis (most recent systematic review published in 2014)

A systematic review exclusively evaluating the use of buprenorphine for chronic non-cancer pain

High-quality evidence comparing buprenorphine with transdermal fentanyl

Evidence evaluating the use of buprenorphine at doses greater than 24 mg per day

Evidence evaluating the effectiveness of buprenorphine when tapering opioids in adults with chronic pain

## Tamper-Resistant Oxycodone (2015)

### Evidence Requested for Decision-Making

- Clinical evidence on the harms associated with non-tamper-resistant oxycodone formulations in adults, including misuse
- Clinical evidence on the harms associated with tamper-resistant oxycodone formulations in adults, including misuse
- Evidence for the reduction of misuse and related harms with tamper-resistant oxycodone compared with non-tamper-resistant formulations
- Cost-effectiveness of tamper-resistant oxycodone
- Recommendations from evidence-based guidelines regarding the use of tamper-resistant oxycodone

### What We Found

- Tamper-resistant oxycodone has the potential to reduce misuse and associated harms.
- Tamper-resistant oxycodone may decrease health care costs associated with the misuse of oxycodone.

### Evidence Gaps

*What We Did Not Find*

**More studies that estimate the effects of the drug formulation in wider populations and settings (in randomized controlled trials conducted to date, men were over-represented and participants were recreational users)**

**Canadian studies on real world-effectiveness**

**A full Canadian economic evaluation**

**Recommendations from evidence-based guidelines regarding the use of tamper-resistant oxycodone**

# Tramadol for the Management of Pain in Adult Patients (2015)

## Evidence Requested for Decision-Making

- Clinical effectiveness of tramadol for the management of pain in adult patients

## What We Found

- Tramadol and tramadol combination products may reduce pain but increase adverse events compared with placebo.
- The efficacy and safety of tramadol or tramadol combinations compared with other agents varied.
- Overall, the quality of evidence is low, and results were not always statistically significant (or statistical significance was not reported).

## Evidence Gaps

*What We Did Not Find*

High-quality studies and systematic reviews

Canadian studies

## Long-acting Opioids for Chronic Non-cancer Pain (2015)

### Evidence Requested for Decision-Making

- Comparative efficacy and safety of long-acting opioids in patients with chronic non-cancer pain

### What We Found

- Only one systematic review and one extension study on the long-term use of opioids was identified.
- Not enough evidence was found to discriminate between the four long-acting opioids in terms of efficacy and safety.

### Evidence Gaps

*What We Did Not Find*

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High-quality and longer-term research on the efficacy and safety of long-acting opioids

Evidence on the comparative safety and efficacy of different long-acting opioids

# Stepwise Approach for the Prescription of Opiates for Non-Cancer Pain (2014)

## Evidence Requested for Decision-Making

- Clinical evidence on the use of a stepwise approach to the prescription of opioids for non-cancer pain in the emergency department or in-hospital setting
- Recommendations from evidence-based guidelines on the use of a stepwise approach for the prescription of opioids for non-cancer pain in the emergency department or in-hospital setting

## What We Found

- Guidelines for chronic pain or pain management in the adult emergency department recommend low-dose opioids and cautious titration if opioids are indicated.

## Evidence Gaps

*What We Did Not Find*

Clinical evidence on the use of a stepwise approach (from lower to higher potency) for the prescription of opioids for pain management in the emergency department or in-hospital setting – none identified

Higher-quality, evidence-based guideline recommendations (currently, the recommendations from most of the guidelines are supported only by lower-quality evidence or expert opinion)

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### ABOUT CADTH

CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs and medical devices in our health care system.

CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

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**CADTH** Evidence Driven.

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