

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Smaller Quantity Opioid Prescribing for Acute Pain: Clinical Effectiveness and Guidelines

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Research Questions

1. What is the clinical effectiveness of prescribing opioids in smaller quantities for patients with acute pain?
2. What are the evidence-based guidelines associated with opioid prescribing for patients with acute pain?

Key Findings

One systematic review of guidelines, two non-randomized studies, and four evidence-based guidelines were identified regarding smaller quantity opioid prescribing for acute pain.

Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were opioid prescribing patterns and acute pain. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and June 7, 2019. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Adults and adolescents (≥12 years of age) suffering from acute pain from any cause (e.g., post-dental procedure, sports injuries, post-surgical)
Intervention	First prescription of opioids in a small quantity (short-term prescribing)
Comparator	Q1: Prescribing of opioids for any length of time (including longer-term, larger quantity prescriptions); No comparator Q2: No comparator
Outcomes	Q1: Clinical effectiveness (e.g., lower likelihood of developing opioid dependence, occurrence of adverse events), safety Q2: Guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

One systematic review of guidelines and two non-randomized studies were identified regarding smaller quantity opioid prescribing for acute pain. In addition, four evidence-based guidelines were identified regarding opioid prescribing for acute pain. No relevant health technology assessments, meta-analyses, or randomized controlled trials were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Herzig SJ, Calcaterra SL, Mosher HJ, et al. Safe opioid prescribing for acute noncancer pain in hospitalized adults: a systematic review of existing guidelines. *J Hosp Med.* 2018 Apr;13(4):256-262.
[PubMed: PM29624188](#)

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

2. Daoust R, Paquet J, Cournoyer A, et al. Quantity of opioids consumed following an emergency department visit for acute pain: a Canadian prospective cohort study. *BMJ Open.* 2018 Sep 17;8(9):e022649.
[PubMed: PM30224393](#)
3. Mark J, Argentieri DM, Gutierrez CA, et al. Ultrarestrictive opioid prescription protocol for pain management after gynecologic and abdominal surgery. *JAMA Network Open.* 2018 Dec 7;1(8):e185452.
[PubMed: PM30646274](#)

Guidelines and Recommendations

4. Hsu JR, Mir H, Wally MK, Seymour RB. Clinical practice guidelines for pain management in acute musculoskeletal injury. *J Orthop Trauma.* 2019 May;33(5):e158-e182.
[PubMed: PM30681429](#)

5. McMaster National Pain Centre. The 2017 Canadian guideline for opioids for chronic non-cancer pain. Hamilton (ON): National Pain Centre; 2017 Apr. http://nationalpaincentre.mcmaster.ca/documents/Opioid%20GL%20for%20CMAJ_01may2017.pdf
Accessed 2019 Jun 12
See: Recommendation 7, page 64
6. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain--United States, 2016. *JAMA*. 2016 Apr 19;315(15):1624-1645. [PubMed: PM26977696](#)
7. American Academy of Family Physicians: Clinical practice guideline: opioid prescribing for chronic pain; 2016 Mar; <https://www.aafp.org/patient-care/clinical-recommendations/all/opioid-prescribing.html>
Accessed 2019 Jun 13
See: Key Recommendations, bullet 5
8. National Institute for Health and Care Excellence. Neuropathic pain in adults: pharmacological management in non-specialist settings (*Clinical Guideline CG173*). 2013 (last updated 2018); <https://www.nice.org.uk/guidance/cg173>
See: Treatment recommendations 1.1.10 and 1.1.12
Accessed 2019 Jun 13.

Appendix — Further Information

Previous CADTH Reports

9. CADTH. Opioid prescribing and pain management: prescription monitoring program overview and the management of acute low back pain. Ottawa (ON): CADTH; 2019: https://www.cadth.ca/sites/default/files/pdf/Opioid_Prescribing_module.pdf
Accessed 2019 Jun 13.
10. Currie I, Pant S, Mierzewski-Urban M. Prescribing and dispensing policies to address harms associated with prescription drug abuse (*CADTH Environmental scan no. 52*). Ottawa (ON): CADTH; 2015 Oct: https://www.cadth.ca/sites/default/files/pdf/ES0291_Prescription_Drug_Abuse_e.pdf
Accessed 2019 Jun 13.
11. Stepwise approach for the prescription of opiates for non-cancer pain: a review of clinical evidence and guidelines. (*CADTH Rapid response report with critical appraisal*). Ottawa (ON): CADTH; 2014 May: https://www.cadth.ca/media/pdf/htis/jun-2014/RC0548_Stepwise%20Opiate%20Prescribing_Final.pdf
Accessed 2019 Jun 13.

Randomized Controlled Trials – Protocol Paper

12. Bachhuber MA, Nash D, Southern WN, et al. Reducing the default dispense quantity for new opioid analgesic prescriptions: study protocol for a cluster randomised controlled trial. *BMJ Open*. 2018 Apr 20;8(4):e019559.
[PubMed: PM29678969](#)

Qualitative Studies – Patterns of Prescribing

13. Huang JS, Kuelbs CL. Clinician opioid prescribing practices and patient utilization of prescribed opioids in pediatrics. *J Opioid Manag*. 2018 Sep/Oct;14(5):309-316.
[PubMed: PM30387854](#)
14. Monitto CL, Hsu A, Gao S, et al. Opioid prescribing for the treatment of acute pain in children on hospital discharge. *Anesth Analg*. 2017 Dec;125(6):2113-2122.
[PubMed: PM29189368](#)
15. Walco GA, Gove N, Phillips J, Weisman SJ. Opioid analgesics administered for pain in the inpatient pediatric setting. *J Pain*. 2017 Oct;18(10):1270-1276.
[PubMed: PM28652205](#)

Economic Evaluations

16. Gaspar FW, Kownacki R, Zaidel CS, Conlon CF, Hegmann KT. Reducing disability durations and medical costs for patients with a carpal tunnel release surgery through the use of opioid prescribing guidelines. *J Occup Environ Med*. 2017 Dec;59(12):1180-1187.
[PubMed: PM28937443](#)

17. Kern DM, Zhou S, Chavoshi S, et al. Treatment patterns, healthcare utilization, and costs of chronic opioid treatment for non-cancer pain in the United States. *Am J Manag Care*. 2015 Mar 1;21(3):e222-234.
[PubMed: PM26014310](#)

Clinical Practice Guidelines – Methods Unspecified

18. Health Quality Ontario. Opioid prescribing for acute pain: care for people 15 years of age and older. *Quality standard*. Toronto (ON): Health Quality Ontario; 2018:
<https://www.hqontario.ca/portals/0/documents/evidence/quality-standards/qs-opioid-acute-pain-clinician-guide-en.pdf>
See: Quality statement 3 “People with acute pain who are prescribed opioids receive the lowest effective dose of the least immediate-release opioid. A duration of 3 days or less is often sufficient. A duration of more than 7 days is rarely indicated.” (p6)
Accessed 2019 Jun 13.
19. College of Physicians & Surgeons of Alberta. Prescribing: drugs associated with substance use disorders or substance-related harm.; 2017 Apr;
<http://www.cpsa.ca/standardspractice/prescribing-drugs-misuse-diversion/>
See: *Bullet 5c*
Accessed 2019 Jun 13.
20. Kaiser Permanente. Patients on chronic opioid therapy for chronic non-cancer pain safety guideline. Seattle (WA): Kaiser Foundation Health Plan of Washington; 2016 Sep: <https://wa.kaiserpermanente.org/static/pdf/public/guidelines/opioid.pdf>
See: *Prevent conversion from acute to chronic opioid therapy, page 3*
Accessed 2019 Jun 13.
21. American College of Emergency Physicians. Critical issues in the prescribing of opioids for adult patients in the emergency department; 2012 Jun;
<https://www.acep.org/patient-care/clinical-policies/opioids>
See: *Bullet 3*
Accessed 2019 Jun 13.

Review Articles

22. Erstad BL. Attempts to limit opioid prescribing in critically ill patients: not so easy, not so fast. *Ann Pharmacother*. 2019 Jul;53(7):716-725.
[PubMed: PM30638027](#)
23. Barth KS, Guille C, McCauley J, Brady KT. Targeting practitioners: a review of guidelines, training, and policy in pain management. *Drug Alcohol Depend*. 2017 Apr 1;173 Suppl 1:S22-s30.
[PubMed: PM28363316](#)