



TITLE: Medications for the Management of Post-Surgical Pain in Pediatrics: Guidelines

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RESEARCH QUESTION

What are the evidence-based guidelines regarding medications for the management of post-surgical pain in pediatric patients?

KEY FINDINGS

Four evidence-based guidelines were identified regarding medications for the management of post-surgical pain in pediatric patients.

METHODS

A limited literature search was conducted 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. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, and guidelines. The search was also limited to English language documents published between January 1, 2011 and June 20, 2016. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

SELECTION CRITERIA

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

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Table 1: Selection Criteria

| | |
|----------------------|---|
| Population | Children under the age of 13 undergoing surgery (in hospital and post-discharge) |
| Intervention | Medications for post-operative pain management |
| Comparator | No comparator |
| Outcomes | Evidence-based guidelines (effective medications for pain management, safety and harms) |
| Study Designs | Health technology assessments, systematic reviews, meta-analyses, evidence-based guidelines |

RESULTS

Rapid Response reports are normally organized so that the higher quality evidence is presented first; however, reports primarily interested in evidence-based guidelines will only include this evidence-type in the main body of the report. Therefore, health technology assessments, systematic reviews, and meta-analyses are presented in the appendix.

Four evidence-based guidelines were identified regarding medications for the management of post-surgical pain in pediatric patients.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One guideline¹ offered recommendations on post-operative pain management for both adults and children. For children, the authors recommend that clinicians offer a multi-modal approach; including a variety of analgesic medications as well as non-pharmacologic approaches to pain management.¹ The authors also recommend that parents or caregivers receive instruction in appropriate methods of pain assessment and in administration of analgesics for post-operative pain.¹

Two guidelines^{2,3} were specific to the relief of pain after tonsillectomy. The authors of one guideline² recommend cox-inhibitors after surgery if there are no bleeding complications. This guideline² recommends paracetamol in combination with cox-inhibitors after discharge from hospital and, if needed, oral clonidine. The authors also suggest the discontinuation of pain medication in the following order, as pain decreases after tonsillectomy: opioid, clonidine, paracetamol, and ibuprofen.² The authors of the other guideline³ recommend non-steroid anti-inflammatory drugs (NSAIDs), in association with paracetamol in situations where the risk of obstructive sleep apnea syndrome or respiratory risks is a concern. In situations where hemorrhagic risk is a concern, the authors recommend tramadol.³

One guideline⁴ provides pain management recommendations for a variety of surgeries. The authors recommend that clinicians be aware of pain assessment methods in children, as well as the use of different analgesics for different developmental ages.⁴ Unless contraindicated, combinations of analgesics within their recommended doses is recommended by the guideline and includes local anesthetics, opioids, NSAIDs, and paracetamol.⁴

REFERENCES SUMMARIZED

Guidelines and Recommendations

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APPENDIX – FURTHER INFORMATION:

Previous CADTH Reports

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Systematic Reviews and Meta-analyses

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