



TITLE: Opioids in Combination with Local Anesthetics for Pain Control: Clinical Effectiveness and Guidelines

DATE: 17 February 2010

RESEARCH QUESTIONS:

1. What is the comparative clinical effectiveness of opioids in combination with local anesthetics for post-operative or labour pain?
2. What are the guidelines regarding use of opioids in combination with local anesthetics for post-operative or labour pain?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 1, 2010), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between 2005 and February 2010. Filters were applied to limit the retrieval to health technology assessments, systematic reviews, meta-analyses, and guidelines. Internet links were provided, where available.

RESULTS:

Nine systematic reviews and six evidence-based guidelines were identified pertaining to the use of opioids in combination with local anesthetics for post-operative or labour pain. No relevant health technology assessment reports were identified. Additional information that may be of interest has been included in the appendix.

Health technology assessments

No literature identified.

Disclaimer: The Health Technology Inquiry Service (HTIS) is an information service for those involved in planning and providing health care in Canada. HTIS responses are based on a limited literature search and are not comprehensive, systematic reviews. The intent is to provide a list of sources of the best evidence on the topic that CADTH could identify using all reasonable efforts within the time allowed. HTIS responses should be considered along with other types of information and health care considerations. The information included in this response is not intended to replace professional medical advice, nor should it be construed as a recommendation for or against the use of a particular health technology. Readers are also cautioned that a lack of good quality evidence does not necessarily mean a lack of effectiveness particularly in the case of new and emerging health technologies, for which little information can be found, but which may in future prove to be effective. While CADTH has taken care in the preparation of the report to ensure that its contents are accurate, complete and up to date, CADTH does not make any guarantee to that effect. CADTH is not liable for any loss or damages resulting from use of the information in the report.

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Systematic reviews and meta-analyses

1. Levy BF, Tilney HS, Dowson HM, Rockall TA. A systematic review of postoperative analgesia following laparoscopic colorectal surgery. *Colorectal Dis*. 2010 Jan;12(1):5-15. [PubMed: PM19220382](#)
2. Taenzer AH, Clark C. Efficacy of postoperative epidural analgesia in adolescent scoliosis surgery: a meta-analysis. *Paediatr Anaesth*. 2010 Feb;20(2):135-43. [PubMed: PM20091934](#)
3. Bamigboye AA, Hofmeyr GJ. Local anaesthetic wound infiltration and abdominal nerves block during caesarean section for postoperative pain relief. *Cochrane Database Syst Rev*. 2009;(3):CD006954. [PubMed: PM19588413](#)
4. Kotze A, Scally A, Howell S. Efficacy and safety of different techniques of paravertebral block for analgesia after thoracotomy: a systematic review and metaregression. *Br J Anaesth*. 2009 Nov;103(5):626-36. [PubMed: PM19837806](#)
5. Joshi GP, Bonnet F, Shah R, Wilkinson RC, Camu F, Fischer B, et al. A systematic review of randomized trials evaluating regional techniques for postthoracotomy analgesia. *Anesth Analg*. 2008 Sep;107(3):1026-40. [PubMed: PM18713924](#)
6. Liu SS, Wu CL. Effect of postoperative analgesia on major postoperative complications: a systematic update of the evidence. *Anesth Analg*. 2007 Mar;104(3):689-702. [PubMed: PM17312231](#)
7. Simmons SW, Cyna AM, Dennis AT, Hughes D. Combined spinal-epidural versus epidural analgesia in labour. *Cochrane Database Syst Rev*. 2007 Jul 18;(3):CD003401. [PubMed: PM17636721](#)
8. Fong HK, Sands LP, Leung JM. The role of postoperative analgesia in delirium and cognitive decline in elderly patients: a systematic review. *Anesth Analg*. 2006 Apr;102(4):1255-66. [PubMed: PM16551934](#)
9. Anim-Somuah M, Smyth RMD, Howell CJ. Epidural versus non-epidural or no analgesia in labour. *Cochrane Database Syst Rev*. 2005 Oct 19;(4):CD000331. [PubMed: PM16235275](#)

Guidelines and recommendations

10. Association of Paediatric Anaesthetists. *Good practice in postoperative and procedural pain* [Internet]. London (UK): The Association; [2008] [cited 2010 Feb 17]. Available from: http://www.apagbi.org.uk/docs/APA_Guidelines_on_Pain_Management.pdf
See section 5: Postoperative pain
11. Fischer HB, Simanski CJ, Sharp C, Bonnet F, Camu F, Neugebauer EA, et al. A procedure-specific systematic review and consensus recommendations for postoperative analgesia following total knee arthroplasty. *Anaesthesia*. 2008 Oct;63(10):1105-23. [PubMed: PM18627367](#)

12. American Society of Anesthesiologists Task Force on Obstetric Anesthesia. Practice guidelines for obstetric anesthesia: an updated report by the American Society of Anesthesiologists Task Force on Obstetric Anesthesia. *Anesthesiology* [Internet]. 2007 Apr [cited 2010 Feb 17];106(4):843-63. Available from: <http://www.asahq.org/publicationsAndServices/OBguide.pdf>
Summary available from: http://www.guideline.gov/summary/summary.aspx?doc_id=10807&nbr=005632&string=abor+AND+pain
13. National Institute for Health and Clinical Excellence (NICE). *Intrapartum care: care of healthy women and their babies during childbirth* [Internet]. London: NICE; 2007 Sep [cited 2010 Feb 17]. NICE clinical guideline 55. Available from: <http://www.nice.org.uk/nicemedia/pdf/IPCNICEGuidance.pdf>
Note: see section 1.5
14. Cincinnati Children's Hospital Medical Center. *Evidence based care guideline for anesthesia, analgesia and sedation following arterial switch operation* [Internet]. Cincinnati (OH): The Center; 2006 Jan 10 [cited 2010 Feb 17]. Available from: <http://www.cincinnatichildrens.org/assets/0/78/1067/2709/2777/2793/9199/bb9a311b-c528-44b0-bf39-9dc1c9686f46.pdf>
Summary available from: http://www.guideline.gov/summary/summary.aspx?doc_id=9865&nbr=005289&string=post-operative+AND+pain
15. Fischer HB, Simanski CJ. A procedure-specific systematic review and consensus recommendations for analgesia after total hip replacement. *Anaesthesia*. 2005 Dec;60(12):1189-202. [PubMed: PM16288617](#)

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APPENDIX – FURTHER INFORMATION:

Guidelines and recommendations

16. British Columbia Perinatal Health Program. *Obstetric guideline 4: pain management options during labour* [Internet]. Victoria: The Program; 2007 Oct [cited 2010 Feb 17]. Available from:
<http://www.bcphp.ca/sites/bcpcp/files/Guidelines/Obstetrics/OB4PainManagement.pdf>
17. Montgomery A, Hale TW, Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #15: analgesia and anesthesia for the breastfeeding mother. *Breastfeed Med* [Internet] 2006 Winter [cited 2010 Feb 17];1(4):271-7. Available from:
http://www.bfmed.org/Resources/Download.aspx?filename=Protocol_15.pdf
Summary available from:
http://www.guideline.gov/summary/summary.aspx?doc_id=11232&nbr=005879&string=abor+AND+pain