

# The Hierarchy of Evidence for Epidural Analgesia

The Hierarchy of evidence is based on summaries from the National Health and Medical Research Council (2009), the Oxford Centre for Evidence-based Medicine Levels of Evidence (2011) and Melynyk and Fineout-Overholt (2011).

- I Evidence obtained from a systematic review of all relevant randomised control trials.
- II Evidence obtained from at least one well designed randomised control trial.
- III Evidence obtained from well-designed controlled trials without randomisation.
- IV Evidence obtained from well designed cohort studies, case control studies, interrupted time series with a control group, historically controlled studies, interrupted time series without a control group or with case- series
- V Evidence obtained from systematic reviews of descriptive and qualitative studies
- VI Evidence obtained from single descriptive and qualitative studies
- VII Expert opinion from clinicians, authorities and/or reports of expert committees or based on physiology

Melynyk, B. & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing & healthcare: A guide to best practice (2<sup>nd</sup> ed.)*. Philadelphia: Wolters Kluwer, Lippincott Williams & Wilkins.

National Health and Medical Research Council (2009). *NHMRC levels of evidence and grades for recommendations for developers of guidelines* (2009). Australian Government: NHMRC.  
[http://www.nhmrc.gov.au/files\\_nhmrc/file/guidelines/evidence\\_statement\\_form.pdf](http://www.nhmrc.gov.au/files_nhmrc/file/guidelines/evidence_statement_form.pdf)

OCEBM Levels of Evidence Working Group Oxford (2011). *The Oxford 2011 Levels of Evidence*. Oxford Centre for Evidence-Based Medicine. <http://www.cebm.net/index.aspx?o=1025>

<b>Reference (include title, author, journal title, year of publication, volume and issue, pages)</b>	<b>Evidence level (I-VII)</b>	<b>Key findings, outcomes or recommendations</b>
<b>Shug, S. Palmer, G et al. Acute Pain Management: Scientific Evidence Fourth (2015) Edition Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine</b>	<b>1</b>	<b>Latest evidence and reviews by expert clinicians</b>
<b>Llewellyn, N and Moriarty, A. (2007) The national pediatric epidural audit. Pediatric Anesthesia 17, 520-533</b>	<b>V</b>	<b>A prospective audit of children receiving epidural analgesia in Great Britain and Ireland, aiming to quantify the risks and adverse events. To establish the numbers of adverse events vs the number of epidurals performed</b>
<b>Moriarty, A (2012) Pediatric epidural analgesia (PEA). 22 (1), 51-55</b>		
<b>Walker et al (2012) Neuraxial analgesia in neonates and infants: A review of clinical and preclinical strategies for the development of safety and efficacy data. Anaesthesia and Analgesia. 115 (3), 638-662</b>	<b>V</b>	<b>The review and data evaluation of LA use in this cohort</b>
<b>Bravenboer-Monster, K. Keyzer-Dekker, C. et al. (2019) Efficacy of Epidural Analgesia after Laparotomy in Children. Eur. J. Pediatr. Surg, 29 (02): 209-214</b>	<b>111</b>	<b>Retrospective study looking at effect of post-operative epidural after laparotomy and the frequency of adverse events. Pain was assessed and data was collected on interventions, pain, complications and any adverse events. The data revealed the success or not based on pain, adverse events, side effects, opioid use and length of time the epidural remained in situ</b>
<b>Wong, G.K. et al. ( 2013) Major complications related to epidural analgesia in children: a 15 year audit of 3,152 epidurals. Can. J Anaesth 60 (4): 355-63</b>	<b>1V</b>	<b>A retrospective study in a single institution looking at complications and trying to identify incidents from all causes to look towards improving and reducing preventable complications The results showed an incidence of 7.6 complications per 1000 epidural infusions, similar to other published data. There were no know major complications identified. The most common being local infection and drug error. It was seen that these 58% were preventable complications</b>

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