

The Hierarchy of Evidence



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 (2nd 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

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>

Databases searched:	<input checked="" type="checkbox"/> CINAHL (Ebsco)	<input checked="" type="checkbox"/> Medline (Ebsco)	<input checked="" type="checkbox"/> Pubmed (NLM)	<input checked="" type="checkbox"/> Nursing (Ovid)	<input type="checkbox"/> Emcare (Ovid)
Keywords used:	Ventricular Reservoir, Neonat*, Newborn, Hydrocephalus, Intraventricular Haemorrhage				
Search limits:	English				
Other search comments:					

Reference (include title, author, journal title, year of publication, volume and issue, pages)	Evidence level (I-VII)	Key findings, outcomes or recommendations
Bembich S., Cont G., Bua J., Paviotti G., and Demarini S. (2019). Cerebral Hemodynamics During Neonatal Cerebrospinal Fluid Removal. <i>Pediatric Neurology</i> . 94: 70-73.	III	Significant changes to haemodynamic status during ventricular reservoir tapping. This study shows the importance monitoring during tapping and consideration to the volume of CSF removed.
Pettorini, B., Keh, R., Ellenbogen, J., Williams, D. and Zebian, B. (2014). Intraventricular haemorrhage in prematurity. <i>Infant</i> . 10(6): 186-190	V	Low rates of infection due to serial tapping of reservoir when strict infection control policies are instituted. Hyponatraemia is a common complication of serial reservoir tapping which required constant monitoring and replacement.
Kormanik, K., Praca, J., Garton, H.J.L and Sarka, S. (2010). Repeated tapping of ventricular reservoir in preterm infants with post hemorrhagic ventricular dilatation in preterm infants with post-hemorrhagic ventricular dilatation does not increase with the risk of reservoir infection. <i>Journal of Perinatology</i> 30, 218-221	V	Serial taps of ventricular reservoirs did not result in cerebral spinal fluid infection and ventricular reservoir infection did not accompany blood culture proven sepsis. Reservoir placement should not be limited secondary to concern for infection due to repeated tapping.
MacDonald, M.G. and Ramaseth, J. (2007). Tapping ventricular reservoirs. <i>Atlas of Procedures in Neonatology</i> 4th edition, pp 366-368	VI	Procedural recommendations published in a reference book.
Western Neonatal Network Guideline Group (2012). Guidelines of the assessment and management of post-haemorrhagic ventricular dilatation in neonates and infants http://nestteam.org/attachments/File/Guidelines	VII	Guideline formed based on expert opinion and previous studies