

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>

Reference (include title, author, journal title, year of publication, volume and issue, pages)	Evidence level (I-VII)	Key findings, outcomes or recommendations
Chaboyer, W., Gass, E. & Foster, M. (2004). Patterns of chest physiotherapy in Australian Intensive Care Units. <i>Journal of Critical Care</i> 19(3), 145-151	IV	The provision of chest physiotherapy services is often shared between physiotherapists and nurses, however, the actual therapies provided appears to vary depending on the provider. While strong evidence for chest physiotherapy procedures is lacking, the widespread use in the ICU suggests that it is an ideal setting for undertaking clinical research
Clini, E. & Ambrosino, N. (2005). Early physiotherapy in the respiratory intensive care unit. <i>Respiratory Medicine</i> , 99(9), 1096-1104	IV	Early physiotherapy may be effective in ICU: however, most techniques (postures, limb exercise and percussion/vibration in particular) need to be further studied in a large population. Evidence supporting physiotherapy intervention is limited as there are no studies examining the specific effects of interventions on long-term outcome.
Poutney, T. (2007). Neonatal Care, Physiotherapy for Children (pp. 73-90). Philadelphia: Elsevier Health Sciences	VII	Explanation of physiotherapy techniques such as vibrations and percussions
Roqué i Figuls, M., Giné-Garriga, M., Granados Rugeles, C., Perrotta, C., & Vilaró, J. (2016). Chest physiotherapy for acute bronchiolitis in paediatric patients between 0 and 24 months old. <i>Cochrane Database of Systematic Reviews</i> (2).	I	Chest physiotherapy does not improve the severity of the disease, respiratory parameters, or reduce length of hospital stay or oxygen requirements in hospitalised infants with acute bronchiolitis not on mechanical ventilation.
Shann, F. & Henning, R. (2003) Paediatric Intensive Care Guidelines; 72	VII	Summary of benefits in PICU
Tamburro, R. F., & Kneyber, M. C. (2015). Pulmonary specific ancillary treatment for pediatric acute respiratory distress syndrome: proceedings from the Pediatric Acute Lung Injury Consensus Conference. <i>Pediatric Critical Care Medicine</i> , 16(5 Suppl 1), S61-72.	VII	Overall, the routine use of surfactant, inhaled nitric oxide, glucocorticoids, prone positioning, endotracheal suctioning, and chest physiotherapy cannot be recommended. Inhaled nitric oxide should only be used for patients with documented pulmonary hypertension and/or right ventricular failure. Prone positioning may be considered in patients with severe pediatric acute respiratory distress syndrome. Future studies are definitely warranted to establish the role, if any, of these ancillary treatment modalities in pediatric acute respiratory distress syndrome

<p>Unsworth, A., Curtis, K., & Asha, S. E. (2015). Treatments for blunt chest trauma and their impact on patient outcomes and health service delivery. <i>Scandinavian Journal of Trauma Resuscitation Emerg Medicine</i>, 23, 17.</p>	<p>IV</p>	<p>Chest physiotherapy, including incentive spirometry, and CPAP have decreased complications in rib fracture treatment. Rapid mobilisation through physiotherapy is considered a key factor in preventing complications, including pneumonia, respiratory failure and ARDS.</p>
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