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


<table>
<thead>
<tr>
<th>Reference</th>
<th>Evidence level (I-VII)</th>
<th>Key findings, outcomes or recommendations</th>
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</thead>
<tbody>
<tr>
<td>McCormack, K. (2003). Endotracheal suctioning: A review and study into practice. <em>Journal of Neonatal Nursing</em>. 9(2):48-54.</td>
<td>V</td>
<td>• Study to review suction practices of 226 nurses from 22 neonatal units&lt;br&gt;• Factors covered: frequency of suctioning, number of practitioners and gloves, size and type of catheters, depth of suction duration of sucking, hypoxaemia during suction, suction pressure, saline installation&lt;br&gt;• Above factors related to available research regarding best practice for each factor</td>
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<tr>
<td>Study</td>
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<td>Key Findings</td>
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<td>Tingay, D.G., Copnell, B., Grant, C. A., Dargaville, P.A., Dunster, K.R. &amp; Schibler, A (2010).</td>
<td>The effect of endotracheal suction on regional tidal ventilation and end-expiratory lung volume. <em>Intensive Care Medicine</em>. 36: 888-896.</td>
<td>• Examines impact of different ETT suction techniques on regional and end-expiratory lung volume and tidal volume in an animal model of surfactant-deficient lung injury&lt;br&gt;• Suction catheter size exerted a greater influence than suction method alone on lung volume loss&lt;br&gt;• Recovery of regional lung volume and tidal ventilation after suction was rapid and uniform in this animal model, regardless of the suction method and catheter size</td>
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