

**Evidence table: Pressure Injury Evidence Table**

Reference	Evidence level (I-VII)	Key findings, outcomes or recommendations
Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury	I-VII	<ul style="list-style-type: none"> <li>• Interventions: positioning, support surfaces, nutrition, education, health professional training and competency, pharmacological management, complementary and/or alternative treatments, wound management products, hyperbaric oxygen, social/education groups, pain management strategies.</li> <li>• Diagnosis and assessment: risk assessment, PI assessment tools, pain assessment, health professional education and competency, PI staging scales.</li> <li>• Although 12 risk assessment instruments were identified, only three were the subject of validation trials—BPUSRAS, Glamorgan scale and Braden Q.</li> </ul>
National Pressure Ulcer Advisory Panel (NPUAP) and European Pressure Ulcer Advisory Panel (EPUAP), Pressure Ulcer Prevention, Quick reference Guide. (2009)	II - VII	<p><i>Special Population: Patients in the Operating Room</i></p> <ul style="list-style-type: none"> <li>- Risk for patients undergoing surgery should be defined by:             <ol style="list-style-type: none"> <li>a) Length of the operation</li> <li>b) Increased hypotensive episodes intraoperatively</li> <li>c) Low core temperature during surgery</li> <li>d) Reduced mobility on day one postoperatively</li> </ol> </li> <li>- Patients should be positioned to reduce the risk of pressure ulcer development during surgery.</li> <li>- Heels should be completely elevated in such a way as to distribute the weight of the leg along the calf without putting all the pressure on the Achilles tendon. The knee should be in slight flexion.</li> <li>- Hyperextension of the knee may cause obstruction of the popliteal vein, and this could predispose the individual to deep vein thrombosis.</li> <li>- Inspecting the skin for signs of erythema, blanching response, localised heat and induration should be conducted regularly.</li> </ul>

<p>Anthony, D., Willock, J., Barharestani, M. (2010) A comparison of braden Q, Garvin and Glamorgan risk assessment scales in paediatrics. <i>Journal of Tissue Viability</i>. 19(3), 98 – 105.</p>	<p>IV</p>	<ul style="list-style-type: none"> <li>• The Glamorgan Scale is the most valid of the three paediatric risk assessment scales studied in this population</li> </ul>
<p><i>Griggs, K, <b>Pressure Area Care: Management.</b> Evidence Summaries – Joanna Briggs Institute. Adelaide: Dec 1, 2008.</i></p>	<p>I</p>	<ul style="list-style-type: none"> <li>• The main strategies utilized to reduce the incidence of pressure injuries are those that minimise the mechanical load. This can be achieved by repositioning , the use of pressure –relieving support surfaces or those support surfaces which mechanically vary pressure beneath bed bound patients.</li> <li>• Specialised foam mattresses compared with standard hospital beds significantly reduce the incidence of pressure injuries</li> <li>• Specialised foam mattresses and hospital grade sheepskins reduce pressure injuries</li> <li>• Dynamic support surfaces should be used for moderate or high risk patients.</li> <li>• The use of massage and doughnut pressure relieving devices are contra-indicated for at risk patients.</li> <li>• Decisions about support surface choice should be based on overall assessment of the patient, not just the risk assessment tool</li> <li>• Individuals who are considered at risk should not sit for a period longer than 2 hours</li> <li>• Patients who cannot reposition themselves require regular two hourly turns or more frequent if they are uncomfortable, incontinent, have poor circulation, fragile skin, decreased sensation or poor nutritional status.</li> <li>• Data suggests raising the bed head higher than 30 degrees increases pressure over the ischial tuberosities potentially resulting in additional shearing</li> <li>• Patients who are totally bedbound must have careful attention to their heels ensuring they are raised from the support surface</li> <li>• Care plans should include documentation about support devices incorporated into care</li> <li>• Repositioning schedule should be clearly documented in careplans</li> <li>• Education of staff regarding repositioning techniques should be mandatory</li> </ul>

# 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 (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>