

## Evidence table: Management of the child with an acute spinal cord injury

Reference	Evidence level (I-VII)	Key findings, outcomes or recommendations
Brown, A & Carmuciano,K. (2003). Introduction to skin management in SCI. Education handout. Victorian Spinal Cord Service	VII	<ul style="list-style-type: none"> <li>• Skin anatomy &amp; pathophysiology in SCI; complications for skin including contributory causes and preventative nursing care</li> </ul>
Brown, A & Carmuciano,K. (2003). Introduction to the neurogenic bowel. Education handout. Victorian Spinal Cord Service	VII	<ul style="list-style-type: none"> <li>• Bowel anatomy, bowel function post SCI, bowel management, complications of neurogenic bowels including signs&amp; symptoms and management</li> </ul>
Brown, A & Carmuciano,K. (2003). Introduction to autonomic dysreflexia. Education handout. Victorian Spinal Cord Service	VII	<ul style="list-style-type: none"> <li>• Defines autonomic dysreflexia, reviews autonomic nervous system and impact of SCI on it. Causes, recognition &amp; treatment of autonomic dysreflexia</li> </ul>
Brown, A & Carmuciano,K. (2006). Postural hypotension. Education handout. Victorian Spinal Cord Service	VII	<ul style="list-style-type: none"> <li>• Postural hypotension in SCI patient: why it happens &amp; how to prevent it</li> </ul>
Consortium for Spinal Cord Medicine.(2008) <i>Early Acute Management in Adults with Spinal Cord Injury: A Clinical Practice Guideline for Health-Care Professionals</i> J spinal Cord Med 2008; 31(4): 408-479. <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582434/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582434/</a>	VII	<ul style="list-style-type: none"> <li>• Guideline written by consortium for spinal cord medicine with 12 step process</li> <li>• Provides recommendations for care from scene of accident through emergency &amp; critical care &amp; rehabilitation(includes levels of evidence/grade of recommendation/consensus of opinion)</li> <li>• Respiratory care, nutrition, bowel, bladder, skin care.</li> </ul>
Hickey, J. (2009). The clinical practice of neurological and neurosurgical Nursing. Sixth Edition. Wolter Kluwer/Lippincott Williams & Wilkins. Philadelphia	VII	<ul style="list-style-type: none"> <li>• Book chapter on spinal cord injuries- adult focus</li> <li>• Covers pathophysiology, acute management, collaborative management approach, surgical &amp; non surgical treatment, in depth nursing care &amp; interventions</li> </ul>
Fries,J. (2005). Critical rehabilitation of the patient with spinal cord injury. <i>Critical Care Nurse Quarterly</i> .	VII	<ul style="list-style-type: none"> <li>• Overview of best practice nursing care that should be performed in intensive care to prevent complications and</li> </ul>

28(2):179-187.		promote positive long term outcomes
Jones, T; Ugalde, V; Franks, P; Zhou, H; White, R. (2005). Venous Thromboembolism After Spinal Cord Injury: Incidence, Time Course, and Associated Risk Factors in 16,240 Adults and Children. Archives of Physical Medicine and Rehabilitation. 86(12)Dec:2240-2247.	IV	<ul style="list-style-type: none"> <li>• Retrospective cohort analysis of all SCI in California between 1991-2001</li> <li>• Overall incidence of VTE was 5.4% within 91 days across all ages; children &lt;13yrs 1.1% and children 14-19yrs 4.4% incidence</li> </ul>
The Queensland spinal cord injuries service (2006) Management of autonomic dysreflexia: Information for health professionals.	VII	<ul style="list-style-type: none"> <li>• Symptoms &amp; causes of autonomic dysreflexia (condition causing severe emergency), treatment of autonomic dysreflexia</li> </ul>
The Queensland spinal cord injuries service (2006) Bowel management following spinal cord injury: Information for health professionals	VII	<ul style="list-style-type: none"> <li>• Goals of bowel management, bowel management routine in acute (spinal shock) and long term phase and based on level of injury</li> </ul>
The Queensland spinal cord injuries service (2005) Bladder management following spinal cord injury: Information for health professionals	VII	<ul style="list-style-type: none"> <li>• Types of bladder impairment, goals of management, methods of management, symptoms &amp; management of UTI</li> </ul>
The Queensland spinal cord injuries service (2002) Management of pressure areas following spinal cord injury: Information for health professionals	VII	<ul style="list-style-type: none"> <li>• Risks for pressure areas, staging &amp; management of pressure areas</li> </ul>
Vogel, L; Hickey, K; Klaas,S; and Anderson,C. (2004). Unique issues in pediatric spinal cord injury. Orthopaedic Nursing. 23(5):300-308	VII	<ul style="list-style-type: none"> <li>• Overview of paediatric specific issues in SCI</li> <li>• Focus on family centred care, bowel, bladder, skin care, autonomic dysreflexia &amp; sexuality &amp; other developmental issues</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>