

Paediatric Neurological Observation Chart

This chart should be used in addition to the Paediatric Physiological Observation chart

Determining Best Motor Response - If no response to verbal commands then a painful stimulus should be applied.

<p>Initially, simply touch or shake the child's shoulder gently. If there is no localising and attempting to remove painful stimulus then a deeper stimulation is required. Before any stimulus is applied, it is fundamental that the child and family are informed of the need for a deeper stimulus and an apology for the need to hurt the child (even if the child is, or seems, unconscious) (Waterhouse, 2005).</p> <p>Pain is applied by using the Trapezius muscle squeeze manoeuvre. This is achieved by using your thumb and index finger in a pincer grip, grabbing approximately 2.5-5cm of the Trapezius muscle where the head meets the shoulder. The muscle is held and twisted for a maximum of 30 seconds with a gradually increasing pressure.</p> <p>A score of 5 is awarded when the patient locates and attempts to remove the painful stimulus</p> <p>Sternal rub, supraorbital, jaw margin and fingertip pressure are not appropriate and should not be used</p>	<div data-bbox="699 212 885 526"> </div> <div data-bbox="1077 212 1428 560"> <p>Trapezius</p> </div> <p>NB. The Trapezius muscle has a sensory and motor component and there is therefore a risk of creating a spinal reflex on stimulation (Waterhouse, 2005).</p> <p>These can cause unnecessary bruising and prolonged residual discomfort (Fairley & Cosgrove, 1999). The use of supraorbital and jaw margin pressure is contraindicated by facial fractures and can make the patient grimace and lead to eye closure rather than opening (Shah, 1999). Fingertip pressure response can be misinterpreted due to factors such as hemiparesis and high spinal cord injury (Fairley and Pearce, 2006).</p>
<p>If no localising to pain is observed / child does not withdraw to touch then the patient is observed for withdrawal (normal flexion) to painful stimulus.</p> <p>If the patient responds to the painful stimulus by rapidly bending their arms at the elbow and displaying shoulder abduction (Fairley and Pearce, 2006) then a score of 4 is awarded.</p>	<div data-bbox="699 750 917 1120"> </div> <div data-bbox="1101 750 1505 1120"> <p>References:</p> <p>Fairley, D., & Cosgrove, J, A. (1999). <i>Glasgow Coma Scale: improving nursing practice through clinical effectiveness</i>. Nursing in Critical Care Vol. 4 No. 6 pp. 276-279</p> <p>Fairley, D., & Pearce, A. (2006). <i>Assessment of consciousness (Part Two)</i>. Nursing Times, 102, 26-27.</p> <p>Nottingham University Hospitals NHS Trust (2014) <i>O07 Paediatric Neurological Observation Guideline</i></p> </div>
<p>A score of 3 is awarded if a slower internal rotation, adduction of the shoulder and flexion of the elbow is observed in response to painful stimulus</p> <p>This collection of movements is categorised as abnormal flexion or decorticate posturing (Fairley and Pearce, 2006).</p> <p>This is an abnormal response and indicates severe cerebral damage and an interruption of nerve pathways from the brain's cortex to the spine</p>	<div data-bbox="699 1153 901 1512"> </div> <div data-bbox="1101 1153 1505 1512"> <p>SHAH, S. (1999). <i>Neurological Assessment</i>. Nursing Standard, 13, 49-56.</p> <p>Waterhouse, C. (2005). <i>The Glasgow Coma Scale and other neurological observation</i>. Nursing Standard, 19, 56-64.</p> </div>
<p>A score of 2 is awarded if there is no abnormal flexion to painful stimulus and the following is observed:</p> <ul style="list-style-type: none"> • straightening of the elbow joint, • adduction, internal rotation of the shoulder, • inward rotation, spastic flexion of the wrist, <p>NB. Jaw clenching, and arching of back with backward flexion of head and feet may also be present.</p> <p>This collection of movements is categorised as extension or decerebrate posturing (Fairley and Pearce, 2006). This is an abnormal response and emanates from the brain stem. It shows that information cannot be transferred, via neural pathways, to and from the cerebrum due to damage to the brain.</p>	<div data-bbox="699 1541 901 1904"> </div> <div data-bbox="1101 1541 1505 1904"></div>
<p>If there is no response to painful stimulus then a score of 1 is given.</p>	