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| **Name:**  **DPT ID number:** | | | | | | | | **NEUROLOGICAL OBSERVATION CHART** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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|  | Eyes  Open | | | | Spontaneously | | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Eyes closed  by swelling  = C |
| **C**  **O**  **M**  **A**  **S**  **C**  **A**  **L**  **E** | To Speech | | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| To Pain | | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Never | | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Best**  Verbal  Response | | | | Orientated | | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Enter a T if person has a Tracheostomy |
| Confused | | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inappropriate words | | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Incomprehensible  Sounds | | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Silent | | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Best**  Motor  Response | | | | Obeys Commands | | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Usually record the best arm response |
| Localises pain | | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Flexion withdrawal | | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Decorticate flexion | | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Decerebrate extension | | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No Response | | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | | | | | **TOTAL out of 15** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  Pupil Scale (mm) | | | | | 240  230  220  210  200  **Blood** 190  **Pressure** 180  **And** 170  **Pulse** 160  **Rate** 150  140  (Record also on pews chart.)  130  120  110  100  90  80  70  60  50  40  30  **Respiration** 20  10 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40  39  38  37  36  35  34  33  32  31  30 |
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| **Pupils** | | | **Right** | | | Size |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **+** reacts  **-** no reaction  **C** eye closed |
| Reaction |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Left** | | | Size |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reaction |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **L**  **I**  **M**  **B**  **M**  **O**  **V**  **E**  **M**  **E**  **N**  **T** | | **Arms** | | Normal Power | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Record right (R) and Left (L) separately if there is a difference between two sides |
| Mild Weakness | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Severe Weakness | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spastic Flexion | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extension | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No response | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Legs** | | Normal Power | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mild Weakness | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Severe Weakness | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extension | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No response | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Modified Paediatric Glasgow Coma Scale for Children**

|  |  |  |
| --- | --- | --- |
| **Eye Opening Response** | | |
| **Score** | **>1 year** | **< 1 year** |
| 4 | Spontaneous | Spontaneous |
| 3 | To verbal command | To shout |
| 2 | To pain | To pain |
| 1 | None | None |

|  |  |  |
| --- | --- | --- |
| **Motor Response** | | |
| **Score** | **>1 year** | **< 1 year** |
| 6 | Obeys command | Displays spontaneous response |
| 5 | Localizes pain | Localizes pain |
| 4 | Withdraws from pain | Withdraws from pain |
| 3 | Displays abnormal flexes to pain | Displays abnormal flexes to pain |
| 2 | Displays abnormal extension to pain | Displays abnormal extension to pain |
| 1 | None | None |

|  |  |  |  |
| --- | --- | --- | --- |
| **Verbal Response** | | | |
| **Score** | **> 5 years** | **2-5 years** | **0-23 months** |
| 5 | Is orientated and converses | Uses appropriate words and phrases | Babbles, coos appropriately |
| 4 | Conversation is confused | Uses inappropriate words | Cries but is consolable |
| 3 | Words are inappropriate | Cries or screams persistently to pain | Cries or screams persistently to pain |
| 2 | Sounds are incomprehensible | Grunts or moans to pain | Grunts or moans to pain |
| 2 | Sounds are incomprehensible | Grunts or moans to pain | Grunts or moans to pain |
| 1 | None | None | None |

Reference: Royal College of Paediatrics and Child Health (RCPCH), 2015, revised 2019, The management of children and young people with an acute decrease in conscious level, London

**Check, observe and Monitoring Neuro-observations**

|  |  |
| --- | --- |
| **Check**  Establish knowledge of child in normal circumstances | Behaviour, sleep pattern, colour, limb weaknesses, pre-existing medical conditions.  Sustained any other injuries, ingested any medication e.g. narcotics or sedatives |
| **Observe**  Neurological status, vital signs and patient condition | Complete a neurological assessment including pupil reaction and document all findings on the paediatric neurological observation chart  Score neurological observation accurately to enable trends for improvement or deterioration.  Document accurate vital signs on age-appropriate PEWs chart including temperature, oxygen saturations and blood pressure with each set of observations |
| **Monitor**  Frequency schedule | * GCS < 15: repeat neuro observations every 30 minutes * GCS 15: monitor every 30 minutes for 2 hours, every 60 minutes for 4 hours and 2 hourly thereafter * Increase to every 30 minutes if GCS deteriorates to less than 15. Restart above frequency schedule following any deterioration. * Escalate to medical staff for doctor review if deterioration or any concern noted. |

NOTE: for diabetic ketoacidosis, hourly neuro observations are required until patient is no longer on intravenous insulin (BSPED 2021)