

TRAUMATIC BRAIN INJURY

Event Date/Time: _____ Admitting Trauma Surgeon: _____ Neurosurgeon: _____

Tier One

Initial Resuscitation Using ATLS Guidelines CPR Necessary? Yes ___ No ___

- **Airway**- Secure airway using neuroprotective strategies
- **Breathing**- Avoid hypoxia and hypercarbia. Goals: PaO₂ > 60 mmHg and PaCO₂ 35 to 40 mmHg.
- **Circulation**- Maintain euvolemia. Treat causes of hypotension.
- Seizure prophylaxis with Keppra bolus 40 mg/Kg IV at ED/PICU. Date/Time _____
 - Maintenance Keppra (20 mg/Kg IV/PO BID)
- 3% SS bolus. Date/Time _____

CT Scan Date/Time: _____ MRI scan Date/Time: _____

Surgery _____ Date/Time: _____

ICP monitoring, if indicated. Date/time _____

Primary Interventions Posted at Head of Bed. Date/time _____

- Elevate the head of the bed 30 degrees
- Initiate Target Temperature Control Guideline. Order target temperature: _____
- Maintain pain control and sedation
- Maintain target serum sodium. ○ 3% to maintain target serum sodium Date/Time: _____
- Maintain target O₂ Saturation and PaCO₂ 35 to 40 mmHg
- Maintain Cerebral O₂ Saturation > 60 %
- Maintain target blood pressure and CPP
- Maintain Blood sugar 80 to 200 mg/dL
- Enteral Nutrition Started within 72 hrs. Date/time _____

- First Tier interventions after primary interventions have been achieved
- Ensure cervical spine collar is appropriately fitted (not compressive)
 - Rule out seizure activity and treat if present (EEG monitoring)

Tier Two

Date and Time Initiated /and Removed

- _____/_____/_____ Continuous neuromuscular blockade (Initiate Continuous EEG monitoring)
- _____/_____/_____ 3% saline boluses 2-5 ml/kg and/or infusion titrating to keep ICP < 20mmHg keeping serum osmol < 360 mosm/L (Protocol located in Trauma Team Site)
- _____/_____/_____ Mannitol 0.25-1 g/kg keeping serum osmol < 320 mosm/L. Maintain Euvolemia.
- _____/_____/_____ 23.4% High Concentration Sodium Chloride bolus. 0.5 ml/Kg (Max. 30 mls)
- _____/_____/_____ Follow up CT scan/MRI. Consult with Neurosurgery.
- _____/_____/_____ Consider CSF drainage (EVD)

Tier Three – Date/Time

- _____/_____/_____ Hypothermia for TBI
- _____/_____/_____ Repeat CT Scan/MRI. Consult with Neurosurgery.
- _____/_____/_____ Decompressive Craniectomy
- _____/_____/_____ Pentobarbital Bolus. Additional boluses Date/Time: _____, _____, _____, _____
- _____/_____/_____ Pentobarbital continuous infusion. Goal of burst suppression achieved at Date/Time: _____
- _____/_____/_____ Temporary Hyperventilation.