## PEDS TRAUMA: HEAD TRAUMA

| | | |
|---|---|---|
| E | EMT | E |
| A | AEMT | A |
| P | PARAMEDIC | P |
| M | MED CONTROL | M |

UNIVERSAL PATIENT CARE PROTOCOL
Oxygen for all head trauma

SPINAL MOTION RESTRICTION-SMR

Control Bleeding, Apply Dressing

Determine and **Trend** GCS

Consider Other Protocols
Altered Mental Status Protocol
Seizure Protocol (if Seizure Activity)

CAPNOGRAPHY PROCEDURE

Isolated Uncomplicated Head Trauma?

PEDIATRIC AIRWAY PROTOCOL
Do Not Hyperventilate

**IV / IO PROCEDURE**
Limit IV fluids due to cerebral edema
Maintain SBP 90

Evidence of, or Suspect Traumatic Brain Injury (TBI)?

PEDIATRIC AIRWAY PROTOCOL

Do ***NOT*** Allow Patient to Become Hypoxic During ANY Airway Management
Maintain Spo2 > 93% At All Times!
Apply Capnography If Advanced Airway Used

Herniation = Unilateral or Bilateral Dilation of Pupils, Posturing

If **Herniation** Ventilate To Maintain **Co2 30 - 35** or 14 - 16 Breaths / Min

If **Non - Herniation** Ventilate To Maintain **Co2 35 - 40** or 10 - 12 Breaths / Min

**IV / IO PROCEDURE**
Normal Saline Bolus to maintain SBP 90

Do NOT allow patient to become hypotensive

Monitor and Reassess

INITATE TRAUMA ALERT

**TRANSPORT** to appropriate facility
**CONTACT** receiving facility
**CONSULT** Medical Direction where indicated

## PEDS TRAUMA: HEAD TRAUMA-Cont.

## PEARLS and KEY POINTS

| HISTORY | SIGNS AND SYMPTOMS | DIFFERENTIAL DIAGNOSIS |
|---|---|---|
| • Time of injury<br>• Mechanism (blunt vs. penetrating)<br>• Loss of consciousness<br>• Bleeding<br>• Past medical history<br>• Medications<br>• Evidence for multi-trauma | • Pain, swelling, bleeding<br>• Altered mental status<br>• Unconscious<br>• Respiratory distress / failure<br>• Vomiting<br>• Major traumatic mechanism of injury<br>• Seizure | • Skull fracture<br>• Brain injury (concussion, contusion, hemorrhage or laceration)<br>• Epidural hematoma<br>• Subdural hematoma<br>• Subarachnoid hemorrhage<br>• Spinal injury<br>• Abuse |

- **Exam: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremities, Back, Neuro**
- If GCS < 12 consider air / rapid transport and if GCS < 8 intubation should be anticipated.
- Increased intracranial pressure (ICP) may cause hypertension and bradycardia (Cushing's Response).
- Hypotension usually indicates injury or shock unrelated to the head injury.
- The most important item to monitor and document is a change in the level of consciousness.
- Maintain SPO2 and BP. If ETCO2 monitoring is available = 35-40