Pediatric Head Trauma

History
- Time of injury
- Mechanism (blunt vs. penetrating)
- Loss of consciousness
- Bleeding
- Past medical history
- Medications
- Evidence for multi-trauma

Signs and Symptoms
- Pain, swelling, bleeding
- Altered mental status
- Unconscious
- Respiratory distress / failure
- Vomiting
- Major traumatic mechanism of injury
- Seizure

Differential
- Skull fracture
- Brain injury (Concussion, Contusion, Hemorrhage or Laceration)
- Epidural hematoma
- Subdural hematoma
- Subarachnoid hemorrhage
- Spinal injury
- Abuse

Pediatric Multiple Trauma Protocol

Pediatric Airway Protocol

Pediatric Seizure Protocol

Universal Care Protocol

Isolated head trauma?

Spinal Immobilization Protocol

IV Protocol

Obtain and Record GCS

GCS < 8

Can patient cough or speak?

Basic Airway Maneuvers with BVM

Maintain Pulse Ox > 90%

GCS > 8

Repeat every 5 minutes

Seizure?

Yes

No

< 60

Blood Glucose

Consider Naloxone

Notify Destination or Contact MC

Pearls
- **Recommended 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.
- Hyperventilate the patient only if evidence of herniation (blown pupil, decorticate / decerebrate posturing, bradycardia, decreasing GCS). If hyperventilation is needed (35/minute for infants <1 year and 25/minute for children >1 year)
- 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.
- Concussions are periods of confusion or LOC associated with trauma which may have resolved by the time EMS arrives. Any prolonged confusion or mental status abnormality which does not return to normal within 15 minutes or any documented loss of consciousness should be evaluated by a physician ASAP.