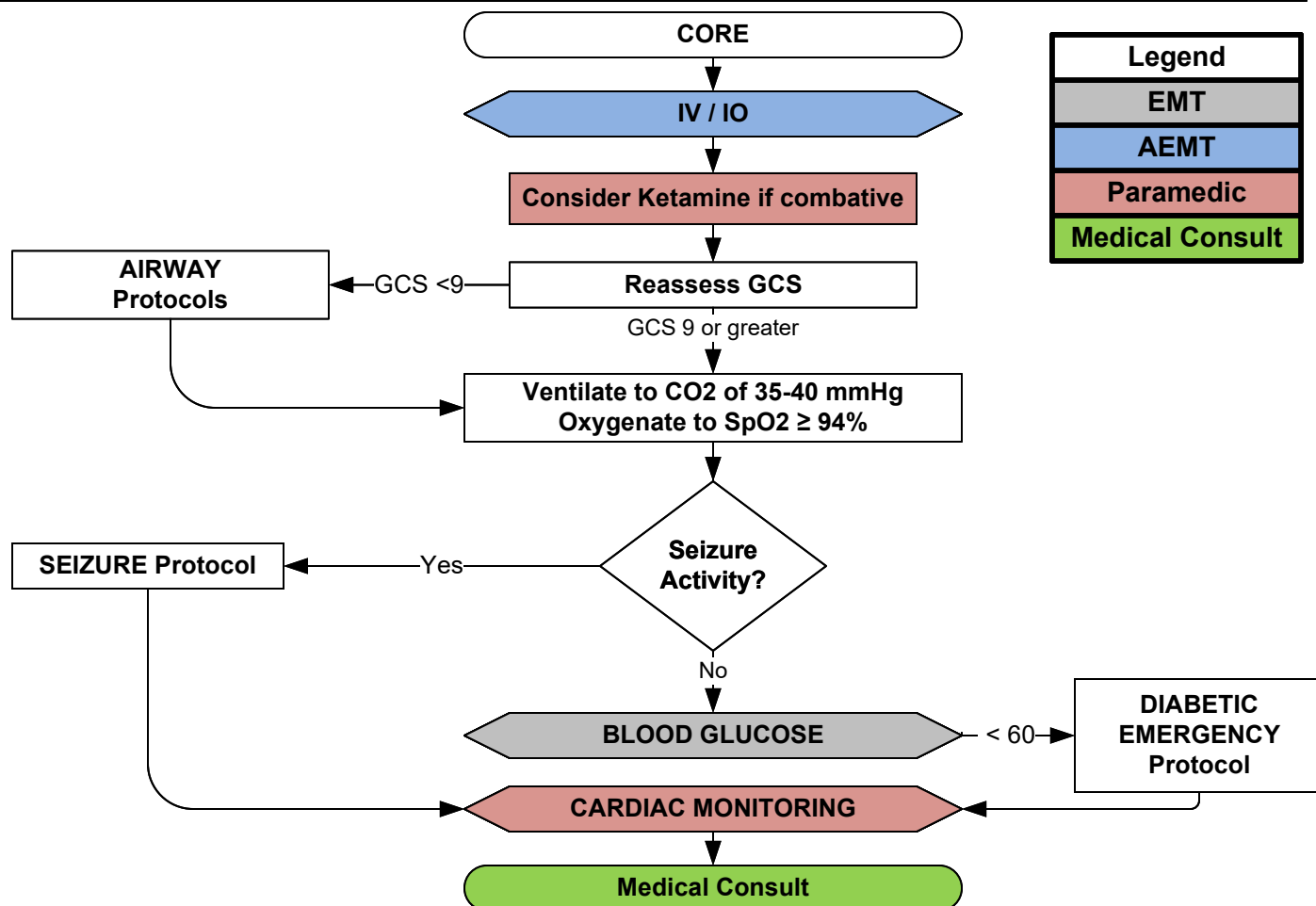


HEAD TRAUMA

History: ○ Time of injury ○ Mechanism: blunt / penetrating ○ Loss of consciousness ○ Bleeding ○ Evidence of multi-trauma ○ Helmet use or damage to helmet ○ SAMPLE ○ Seizure	Signs and Symptoms: ○ Pain, swelling, bleeding ○ Altered level of consciousness/ Unconscious ○ Respiratory distress / failure ○ Vomiting ○ Decreased reflexes, paralysis in extremities ○ Decorticate/Decerebrate posturing ○ Pupillary changes	Differential: ○ Skull fracture ○ Brain injury (concussion, contusion, hemorrhage, or laceration) ○ Epidural hematoma ○ Subdural hematoma ○ Subarachnoid hemorrhage ○ Spinal injury ○ Abuse
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Pearls:

- Consider elevating head of bed 30° if patient has a systolic blood pressure of 90 mmHg or more.
- Increased intracranial pressure (ICP) may cause hypertension and bradycardia (Cushing's Response). **Do NOT attempt to lower blood pressure.**
- Hypotension usually indicates injury or shock unrelated to the head injury and should be aggressively treated however, limit IV fluids unless patient is hypotensive (systolic BP < 90).
- The most important item to monitor and document is a change in the level of consciousness.
- Consider restraints if necessary for patient's and/or personnel's protection per the **RESTRAINT Procedure**.
- 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.
- Patients with a normal GCS of 15 may have underlying brain trauma if the following signs or symptoms are seen: vomiting, severe headache, focal temporal blow, or restlessness.
- Patients presenting with a GCS < 14 and one or more of the following will require evaluation by a neurosurgeon if possible: Penetrating head injury or depressed skull fracture, open head injury with or without CSF leak, deterioration of GCS, lateralizing signs or paralysis (i.e., one-sided weakness, motor or sensory deficit.)