**30 Second Review**

<table>
<thead>
<tr>
<th>Skill Level:</th>
<th>RN, LPN</th>
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<tr>
<td><strong>DEF:</strong></td>
<td>Head trauma refers to any damage to the scalp, skull or brain caused by injury, classified as open or closed.</td>
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<td><strong>S/S:</strong></td>
<td>Loss of consciousness, memory loss, alteration in mental status, focal neurological deficits, possible seizure activity.</td>
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<td><strong>RX:</strong></td>
<td>Monitor airway, breathing, circulation and level of consciousness. O2 by nasal cannula or mask to keep SA02&gt;94%. Ambu bag for depressed respirations. If suspect neck or spinal injury, consider spinal immobilization. Transport to higher level of care by ambulance. While awaiting transport, may start IV @ TKO. Notify provider.</td>
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**Definition:** Head trauma refers to any damage to the scalp, skull or brain caused by injury, classified as open or closed. A non-degenerative, non-congenital insult to the brain from an external mechanical force, possibly leading to permanent or temporary impairment of cognitive, physical, and psychosocial functions, with an associated diminished or altered state of consciousness.

**DATA BASE:**

**Subjective:** Describe mechanism of injury, i.e., Blunt trauma. Elicit time, place and source of trauma.

**Objective:**
- Any period of loss of consciousness (LOC),
- Any loss of memory for events immediately before or after the accident,
- Any alteration in mental state at the time of the accident
- Unstable Vital Signs may be present
- Focal neurologic deficits, which may or may not be transient."
- Two or more episodes of vomiting
- On anti-coagulant therapy
- Seizures
- > 60 years old
- Glasgow Coma Scale
- Open wounds to scalp
- Depressed skull fracture
- Exposed brain matter
- Cerebral Spinal fluid drainage from ears, nose
- Periorbital ecchymosis (Raccoon eyes)
- Ecchymosis over the mastoid area behind the ears (Battle’s sign) May develop over a period of hours after injury. Indicative of basilar skull fracture

**Assessment:** Alteration in level of consciousness, memory, or mental status related to injuries to head.
Plan:
1. Manage Circulation, airway and Breathing
2. Spinal stabilization
3. O2 by Nasal Cannula, Mask or Ambu bag for depressed respirations, to keep Sao2 >94%
4. Monitor vital signs and mental status
5. Transport to Emergency Department by Ambulance
6. While awaiting transport, start IV “To Keep Open”
7. Notify Provider

Nursing Education:
1. Moderate or severe head trauma is almost always associated with a high risk head injury, usually a motor vehicle accident, repeated direct trauma or a fall from a height. At risk patients are those who are 60 or over and/or anti-coagulated. These patients often have persistent neurological impairment, including persistent confusion, focal neurological findings, and symptoms of nausea, vomiting, dizziness and significant headache.
2. A variant of moderate head trauma is when patients talk and deteriorate. These patients usually present with minor neurological impairment, and their status worsens over the course of the first 48 hours after injury. Many of them have subdural or epidural hematomas or brain injury with edema. All patients with moderate or severe head trauma need neural imaging (non-contrast CT) and close observation.
3. Positive Battle sign may develop over a period of hours after injury and is indicative of basilar skull fracture. Do not pack ears or nose in the event of head injury. Increased intracranial pressure my result.
4. GCS greater than 12 meets criteria for mild TBI (Traumatic Brain Injury). GCS score of 9 – 12 is Moderate TBI and a score <9 is considered severe TBI.

APPROVED:

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Medical Services Manager          Date

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Chief Medical Officer          Date

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Clinical Medical Director          Date

Effective Date: ____________________________
Revised: March 2018
Supersedes: (New Protocol March 2018)