

Section: Division of Nursing

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PROTOCOL

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HACKETTSTOWN REGIONAL MEDICAL CENTER

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ED
(Scope)

TITLE: HEAD TRAUMA PROTOCOL

PURPOSE: To outline the nursing care of moderate/severe head injury.

LEVEL: Interdependent

TRIAGE: Head injury can be a life-threatening injury. All moderate/severe head trauma are emergent cases.

HISTORY:

1. What was the mechanism of injury?
2. If the patient is verbally responsive, what are the complaints? Headaches, vomiting or changes in memory are important early signs of head injury.
3. What was the patient's position at time of accident?
4. Any LOC? If so, how long?
5. What treatment given by pre-hospital care providers?
6. Any alcohol or drugs on board?
7. Any history of seizures?

PHYSICAL ASSESSMENT:

1. Assess airway, breathing and circulation
2. Assess pupil size, equality and response to light.
3. Assess GCS
4. Assess blood glucose with Accucheck
5. Assess for scalp lacerations, foreign bodies.
6. Note ecchymosis or contusions to head and face. (Periorbital ecchymosis or raccoon's eye - basilar skull fractures anterior fossa - ecchymosis over mastoid process - battles sign - basilar skull fracture middle fossa.)
7. Inspect open head wounds for presence of brain matter.
8. Evaluate drainage from nose and ears; if drainage is clear, a CSF leak should be suspected. Test the fluid with a chem strep; if positive for glucose, the drainage is CSF.
9. Ensure cervical spine immobilization.
10. Palpate skull and neck gently for fracture.

DIAGNOSTIC PROCEDURES

1. Skull and cervical spine films to identify fracture, displacement
2. CAT scans to identify lesions, edema or bleeding
4. CBC, differential, CMP, ABG's, drug and alcohol screen if suspected.

INTERVENTIONS-- CRITICAL-- LIFE SAVING:

1. Ensure C-spine immobilization until x-rays/CT scan is read as negative
2. Airway – assess and maintain patient airway
 - a. Intubate for GCs less than 8 (comatose)
 - b. Place NGT with intubation to prevent aspiration
3. Breathing
 - a. Oxygen as needed to maintain PaO2 greater than 100mmHg
 - b. Maintain PaCO2 35 to 45 mmHg
 - c. Avoid hyperventilation
4. Circulation – present hypotension
 - a. Initiate large bore IV
 - b. Maintain SBP above 90mmHg

TO PREVENT
COMPLICATIONS

1. Place patient's head in midline; elevate to approximately 30° after C-spine cleared.
2. Minimize suctioning or stimulation of gag reflex which increases ICP.
3. Administer anticonvulsants if seizure activity occurs.
4. Administer ordered antibiotic for treatment of open wounds.
5. Administer tetanus if needed.
6. Administer sedation as ordered.

ONGOING
ASSESSMENT:

1. Continue to monitor ABCs, vital signs, LOC, pupil size, fluid intake and urinary output.
2. Prep patient for possible surgery.
3. Prep patient for possible transfer to trauma center.

DOCUMENTATION:

1. Chart to protocol.
2. Chart to changes in treatment and protocol.
3. Chart reaction to interventions.
4. Patient disposition, room and time.

Reference

Trauma Nursing Care Course, 5th Edition
Lippincott Manual of Nursing Practice, 8th Edition
Lippincott, Williams & Wilkins