Traumatic Brain Injury

Location: Rural Hospital Emergency Department and Pediatric Medical-Surgical Unit

History/Information:
The patient is a six-year-old male who lives in a rural community. He was riding in the back of his parent's pickup truck on a rural dirt road to visit friends and family. His father, who was driving after drinking "two beers" swerved, hitting the neighbor’s dog. The boy was standing up in the bed of the truck and was ejected. He landed approximately five feet away. His father states, "He's a brave boy; he never cried. When I got to him, he was just looking around. He seemed okay to me. So we picked him up and he wasn't bleeding anywhere." However, his hysterical mother insisted that he be brought to the Emergency Department, so his parents brought him to the local hospital in their own private vehicle.

Healthcare Provider's Orders:
Continuous cardiac and SpO₂ monitor
Vital signs and neurological checks every hour
CBC, Electrolytes, BUN, Creatinine, Glucose, Type and Cross Match for 2 units of Packed Red Blood Cells (PRBC), Urinalysis
x-ray of Cervical Spine, Chest, and Pelvis
Place peripheral IV and begin 0.9% NS at 64 mL/hour

1. Discusses the prevalence of traumatic brain injuries in the pediatric population who are injured as a result of motor vehicle collisions or falls (COMPREHENSION).
2. Explains the role nursing has in education and prevention of these injuries (COMPREHENSION).
3. Performs an accurate physical and psychosocial assessment on the child who is admitted following a traumatic brain injury (APPLICATION).
4. Identifies nursing interventions for the child with signs and symptoms of increased intracranial pressure (ANALYSIS).
5. Evaluates the child's response to interventions and responds appropriately (EVALUATION).
6. Incorporates concepts of family centered nursing care in planning, implementing, and evaluating care of the child with a traumatic brain injury (SYNTHESIS).
1. What are the leading causes of traumatic brain injury in the pediatric population?
2. Discuss the role of the nurse in prevention of these injuries.
3. What are the priority nursing interventions for the child who has sustained a traumatic injury?
4. Outline expected symptoms and treatment strategies for mild-moderate splenic laceration.
5. Explain how the Glasgow Coma Scale is used and discuss the significance of a decrease in total score.
6. Discuss the differences in the signs and symptoms, nursing interventions, and prognosis of the child with a subdural versus an epidural hematoma.
7. What medications are used to treat increased intracranial pressure? What are their actions, side effects, and nursing implications associated with their administration?
8. Describe the management (other than medications) used to treat a child with increased intracranial pressure.
9. Identify the developmentally appropriate psychosocial and communication skills that the nurse should use while caring for the child and the family after a traumatic brain injury.


