

Pediatric Traumatic Brain Injury

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Student Developed Simulation Scenario Storyboard	
<p>Identified Problem/Scenario Topic: Traumatic Brain Injury (TBI) in a 3-month-old following a Fall Related Resources: Pediatric Glasgow Coma Scale CDC Pediatric Head Injury Guidelines ATI Pediatric Nursing (2023) National Institute of Neurological Disorders and Stroke (NINDS)</p>	<p>Scenario Key Points:</p> <ul style="list-style-type: none"> ● Infant fell from a couch at home ● Presents with vomiting, irritability, and decreased responsiveness ● Bulging fontanelle and unequal pupils noted ● CT scan pending; suspected intracranial injury ● Parents are anxious and unsure how the fall occurred
<p>Case Summary: A 3-month-old male infant was brought to the ED after falling from a couch onto a hardwood floor. The mother reports the infant rolled unexpectedly. Since the incident, the infant has vomited twice, is irritable, and less responsive. Assessment reveals a bulging fontanelle, unequal pupils, and a high-pitched cry. Vital signs show bradycardia and elevated blood pressure. A CT scan is ordered. The infant is admitted for neuro monitoring and supportive care.</p>	<p>Expected Interventions of Students: (Minimum of 5 required.)</p> <ul style="list-style-type: none"> ● Perform frequent neuro assessments using Pediatric Glasgow Coma Scale ● Elevate head of bed to 30° and maintain head midline ● Monitor for signs of increased intracranial pressure (Cushing’s triad) ● Administer acetaminophen using FLACC scale for pain assessment ● Educate and emotionally support parents ● Maintain NPO status and initiate IV fluids ● Prepare for seizure precautions (suction, emergency meds) ● Document all assessments and interventions thoroughly
<p>Supplies:</p> <ul style="list-style-type: none"> ● Pediatric crash cart ● Suction setup ● Oxygen delivery system ● IV start kit and fluids ● Neurological assessment tools ● FLACC pain scale chart ● Pediatric medication supplies 	<p>Support Person: (Only complete if you want a support person)</p> <p>Who is the person to the patient? Mother</p> <p>Questions/Responses for Support Person: Mom: “Will my baby be okay?” Nurse: “We’re monitoring your baby closely and taking every step to ensure safety and recovery.”</p> <p>Mom: “How did this happen?” Nurse: “Infants begin rolling around this age. We’ll help you learn safety strategies to prevent future injuries.”</p>
<p>Medications: (Include drug name, dosage, route, and concentration for scenario)</p> <ul style="list-style-type: none"> ● Acetaminophen: 80mg q4-6h PRN, PO/PR, 160 mg/mL ● Lorazepam: 0.05 mg/kg PRN, IV, 2 mg/mL ● NS 0.9%NaCl: 10mL/kg bolus, IV, isotonic solution ● Ondansetron: 0.1 mg/kg q8h PRN, IV, 2 mg/mL 	

NCLEX Questions

- I. Which of the following findings indicates increased intracranial pressure in a 3-month-old infant?
- A. Soft, flat fontanelle
 - B. High-pitched cry
 - C. Regular Respirations
 - D. Warm Extremities

Answer: B

Rationale: A high-pitched cry is a classic sign of increased ICP in infants, along with bulging fontanelle and irritability.

- II. What is the priority nursing action for an infant with suspected TBI and vomiting?
- A. Administer oral fluids
 - B. Place infant in prone position
 - C. Maintain NPO and initiate IV fluids
 - D. Encourage breast feeding
 - E.
 - F.
 - G.

Answer: C.

Rationale: Vomiting increases aspiration risk. NPO status with IV fluids ensures hydration and airway protection.

Debriefing Questions:

1. What signs and symptoms helped you identify increased intracranial pressure in this patient?
2. How did you support the parent emotionally while maintaining clinical priorities?

Case Flow (15-20 Minute Simulation Time)

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All areas should be addressed with pertinent information. Do not leave any blanks. All underlined areas on supporting documents should be addressed. You can place NAs in any area that does not apply to your scenario.

Patient Report:

Additional information, Medical History:

Patient data:

DOB:

MR#:

Prior medical history:

Allergies:

Social history:

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 Sandusky, Ohio
 Physician's Orders

NAME: _____	STATUS:
SIGNED _____	
DATE ORD: XX/XX/XX _____	ROOM:
ORD PHYS: _____ _____	MR#
ATTENDING: _____ _____	DOB:
AGE: ___ years old XX/XX/XX	DATE:

Date/Time	
XX/XX/XX	Admit to _____
	Diagnosis: _____
	VS every _____

	Activity: _____
	Diet: _____
	I&O
	IV: _____
	Medications: _____
	Other: _____
	Dr. _____

<u>NAME</u>	DOB: _____	Age: ____
Allergies: _____	Medication Administration Record – Current Medications	
Account #: _____	Unit: _____	Room #: _____
Attending: _____	ADM IN	
Wt: ____ kg; Ht: ____ in		
BSA: _____		
BMI: _____		

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Start	Medication	Time	TODAY XX/XX/XXXX
Stop			

XX/XX/XXX X	<u>Name Route How Often</u> Trade: _____	_____	
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Active Acknowledged			
		Instructions: _____	
XX/XX/XXX X	<u>Name Route How Often</u> Trade: _____	_____	
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Sandusky, Ohio
LABORATORY

NAME: _____	STATUS:
SIGNED _____	
DATE ORD: XX/XX/XX _____	ROOM:
ORD PHYS: _____ _____	MR#
ATTENDING: _____ _____	DOB:
AGE: ___ years old XX/XX/XX	DATE:

HGB/HCT	XX/XX/XX Admission	Reference Range
HGB		
HCT		

CMP	XX/XX/XX Admission	Reference Range
Na		
CL		

K		
BUN		
Creatinine		
Blood Glucose		
Blood pH		

URINALYSIS	XX/XX/XX Admission	Reference Range
pH		
Specific Gravity		
Glucose		
Protein		
Blood		
Ketones		
Nitrite		
Leukocyte esterase		
Clarity		
Color		

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IMAGING DEPARTMENT

NAME: _____	STATUS:
SIGNED	
DATE ORD: XX/XX/XX	ROOM:

ORD PHYS: _____	MR#

ATTENDING: _____	DOB:

AGE: ___ years old	DATE: XX/XX/XX

CLINICAL DATA/Reason for Test:

X-ray:

IMPRESSION:

References

ATI Nursing Education. (2023). *Pediatric Nursing Review Module*. Assessment Technologies Institute.

Centers for Disease Control and Prevention. (2023). *Pediatric traumatic brain injury guidelines*. <https://www.cdc.gov/traumaticbraininjury>

Hockenberry, M. J., & Wilson, D. (2022). *Wong's essentials of pediatric nursing* (11th ed.). Elsevier.

National Institute of Neurological Disorders and Stroke. (2023). *Traumatic brain injury information*. <https://www.ninds.nih.gov>