

# Acute Lymphoblastic Leukemia

### Signs & Symptoms

- bone pain
- weakness/fatigue
- pale skin
- SOB
- swollen lymph nodes

### Pathophysiology

- malignant growth of WBC precursors in bone marrow or lymph tissue.
- (most common childhood cancer - cancer of the blood & bone marrow that affects WBC.)

### Diagnostics/Labs

- bone marrow aspiration & biopsy
- blood count → anemia, thrombocytopenia, & neutropenia
- leukocyte count
- lumbar puncture

### Treatment/Medication

- Chemotherapy (eradicates leukemic cells)
- radiation therapy
- platelet transfusion
- vincristine
- prednisone
- cytarabine

### Nursing Interventions

- infection control (private room, limited visitors, pt is immunosuppressed while on chemo)
- prevent constipation
- mouth ulcers (caused by chemo)

### Patient Teaching

- proper nutrition (high calorie & high protein foods/drinks)
- how to recognize abnormal bleeding (bruising)
- what to expect w/ chemo
- support group / more resources outside of hospital

### Other

### Priority Nursing Diagnosis

- higher risk of infection
- pain & discomfort

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<p><b>7. Pain &amp; Discomfort Management: List 2 Developmentally Appropriate Non-Pharmacologic Interventions Related to Pain &amp; Discomfort for This Patient.</b></p> <p>1. <i>diversion</i></p> <p>2. <i>relaxation (help w/ hands)</i></p> <p><b>*List All Pain/Discomfort Medication on the Medication Worksheet</b></p>	<p><b>8. Calculate the Maintenance Fluid Requirement (Show Your Work):</b></p> <p>Patient Wt: <u>42</u> kg</p> $\begin{array}{r} 10 \times 100 \\ 10 \times 50 \\ \hline 22 \times 30 = 440 \\ 1940 \end{array}$ <p>Calculated Fluid Requirement: <u>81</u> ml/hr</p> <p>Actual Pt MIVF Rate: _____ ml/hr</p> <p>Is There a Significant Discrepancy? _____</p> <p>Why? _____</p>	<p><b>9. Calculate the Minimum Acceptable Urine Output Requirement (Show Your Work):</b></p> $\begin{array}{r} 0.5 \times 42 = 21 \\ 21 \times 24 \end{array}$ <p>Calculated Min. Urine Output: <u>21</u> ml/hr</p> <p>Actual Pt Urine Output: _____ ml/hr</p>
	<p><b>10. Growth &amp; Development: List the Developmental Stage of Your Patient for Each Theorist Below and Document 2 OBSERVED Developmental Behaviors for Each Theorist. If Developmentally Delayed, Identify the Stage You Would Classify the Patient:</b></p> <p>Patient age: <u>12 years</u></p> <p><b>Erickson Stage:</b></p> <p>1. <i>identity vs role confusion</i></p> <p>2. <i>"who am I &amp; where am I going?" considering diagnosis</i></p> <p><b>Piaget Stage:</b></p> <p>1. <i>personal fable - "nobody will understand me."</i></p> <p>2. <i>ability to consider the future &amp; its possibilities</i></p>	

<p><b>11. Focused Nursing Diagnosis:</b></p> <p>acute pain &amp; discomfort</p>	<p><b>15. Nursing Interventions related to the Nursing Diagnosis in #11:</b></p> <p>1. private room/limited visitors</p> <p><b>Evidenced Based Practice:</b> pts undergoing chemo are at higher risk for infection.</p> <p>2. proper &amp; frequent oral care</p> <p><b>Evidenced Based Practice:</b> chemo causes mouth sores assisting w/ oral care will reduce pain.</p> <p>3. psychological support</p> <p><b>Evidenced Based Practice:</b> having a wide range of support will help cope</p>	<p><b>16. Patient/Caregiver Teaching:</b></p> <p>1. disease process</p> <p>2. treatment <del>is</del> it's increased risk for infection &amp; bleeding (know signs &amp; symptoms)</p> <p>3. avoid large crowds &amp; proper hand hygiene / precautions for defining in contact w/ people</p>
<p><b>12. Related to (r/t):</b></p> <p>chemotherapy</p>		<p><b>17. Discharge Planning/Community Resources:</b></p> <p>1- proper understanding about disease</p> <p>2- &amp; treatment (pt &amp; family)</p> <p>3- resources / support groups</p> <p>- comfort / coping w/ diagnosis</p>
<p><b>13. As evidenced by (aeb):</b></p> <p>mouth sores</p> <p>fever / infection</p> <p>alter in emotions</p>		
<p><b>14. Desired patient outcome:</b></p> <p>satisfaction with pain &amp; comfort levels</p>		

**Signs & Symptoms**

- staring
- change in LOC.
- jerking or stiffening of body
- loss of consciousness & balance.

**Pathophysiology**

- sudden imbalance between the excitatory (↑) & inhibitory (↓) forces.

**Diagnostics/Labs**

- EEG (electroencephalography)
- Proctatin Study
- CT scan

**new onset seizure disorder**

**Treatment/Medication**

- anticonvulsants
- monotherapy
- lowest mg (if necessary)
- activity modification & restrictions
- vagus nerve stimulation

**Nursing Interventions**

- promote airway clearance
- have suction at bedside
- lay pt on side during an episode

**Patient Teaching**

- take medicine exactly as directed
- get enough sleep → lack of sleep can trigger a seizure
- educate family what to do when seizure occurs
- avoid extreme emotions & stimuli

**Other**

**Priority Nursing Diagnosis**

- risk for injury
- risk for ineffective airway clearance

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<p><b>7. Pain &amp; Discomfort Management: List 2 Developmentally Appropriate Non-Pharmacologic Interventions Related to Pain &amp; Discomfort for This Patient.</b></p> <p>1. environment adaptation - less stimuli 2. relaxation</p> <p><b>*List All Pain/Discomfort Medication on the Medication Worksheet</b></p>	<p><b>8. Calculate the Maintenance Fluid Requirement (Show Your Work):</b> Patient Wt: <u>19</u> kg</p> $\begin{array}{r} 10 \times 100 \\ 9 \times 50 \\ \hline 1450 \end{array} \div 24 = 60.41$ <p>Calculated Fluid Requirement: <u>60</u> ml/hr</p> <p>Actual Pt MIVF Rate: _____ ml/hr</p> <p>Is There a Significant Discrepancy? Why?</p>	<p><b>9. Calculate the Minimum Acceptable Urine Output Requirement (Show Your Work):</b></p> $0.5 \times 19 = (10)$ <p>Calculated Min. Urine Output: <u>9.5</u> ml/hr</p> <p>Actual Pt Urine Output: _____ ml/hr</p>
	<p><b>10. Growth &amp; Development: List the Developmental Stage of Your Patient For Each Theorist Below and Document 2 OBSERVED Developmental Behaviors for Each Theorist. If Developmentally Delayed, Identify the Stage You Would Classify the Patient:</b> Patient age: <u>6 years</u></p> <p><b>Erickson Stage:</b></p> <ol style="list-style-type: none"><li>1. feel degree of inferiority regarding skills they cannot master, despite being good at other skills.</li><li>2. motivated to start &amp; complete a task</li></ol> <p><b>Piaget Stage:</b></p> <ol style="list-style-type: none"><li>1. fear of "body mutilation"</li><li>2. views everything in relation to self</li></ol>	

<p><b>11. Focused Nursing Diagnosis:</b></p> <p>risk for injury</p>	<p><b>15. Nursing Interventions related to the Nursing Diagnosis in #11:</b></p> <ol style="list-style-type: none"> <li>1. airway clearance</li> </ol> <p><b>Evidenced Based Practice:</b> having suction at bedside w/ assist w/ avoiding aspiration</p> <ol style="list-style-type: none"> <li>2. pt lay on side during seizure episode.</li> </ol> <p><b>Evidenced Based Practice:</b> avoid swallowing of tongue</p> <ol style="list-style-type: none"> <li>3. reduce stimuli / avoid excessive stimuli</li> </ol> <p><b>Evidenced Based Practice:</b> reduces risk of seizure</p>	<p><b>16. Patient/Caregiver Teaching:</b></p> <ol style="list-style-type: none"> <li>1. Various stimuli that may increase potential seizure activity</li> <li>2. modifying the environment to enhance safety</li> <li>3. ensure pt &amp; family have correct understanding of what to do when seizure happens</li> </ol>
<p><b>12. Related to (r/t):</b></p> <p>seizure episode</p>		<p><b>17. Discharge Planning/Community Resources:</b></p> <ol style="list-style-type: none"> <li>1. pt understands disorder &amp; stimuli that ↑ seizure.</li> <li>2. maintain aspiration prevention</li> <li>3. understand importance of taking medication</li> </ol>
<p><b>13. As evidenced by (aeb):</b></p> <p>loss of balance altered consciousness</p>		
<p><b>14. Desired patient outcome:</b></p> <p>pt &amp; family have proper education &amp; understanding of the importance of safety.</p>		

# Pyloric Stenosis

**Signs & Symptoms**

- Vomiting after feeding (projectile vomit)
- Stomach contractions
- dehydration
- constipation
- weight problems (not able to gain weight)

**Pathophysiology**

the muscles in the stomach enlarge, narrowing the opening of the pylorus which eventually prevent food from moving from stomach to the intestine.

**Diagnostics/Labs**

- blood test (dehydration & electrolyte imbalance)
- ultrasound
- x ray (if ultrasound isn't clear)

**Treatment/Medication**

- pyloromyotomy
- fluid replacement

**Nursing Interventions**

- o maintain adequate nutrition & fluid intake
- o oral care (mucous membranes are dry)

**Patient Teaching**

- prepare caregiver for vomit after feeding.
- provide positions to avoid reduce vomiting
- avoid laying flat for long periods of time
- signs of dehydration, dry diapers, less frequency of urination

**Other**

**Priority Nursing Diagnosis**

- hypovolemia
- improper nutrition (due to inability to retain food)

Student Name \_\_\_\_\_

<p><b>7. Pain &amp; Discomfort Management: List 2 Developmentally Appropriate Non-Pharmacologic Interventions Related to Pain &amp; Discomfort for This Patient.</b></p> <ol style="list-style-type: none"> <li>1. non-nutritive sucking</li> <li>2. positioning</li> </ol> <p><b>*List All Pain/Discomfort Medication on the Medication Worksheet</b></p>	<p><b>8. Calculate the Maintenance Fluid Requirement (Show Your Work):</b>          Patient Wt: <u>4</u> kg</p> $100 \times 4 = 400$ $400 \div 24 = 16.66$ <p>Calculated Fluid Requirement: <u>17</u> ml/hr</p> <p>Actual Pt MIVF Rate: _____ ml/hr</p> <p>Is There a Significant Discrepancy? Why?</p>	<p><b>9. Calculate the Minimum Acceptable Urine Output Requirement (Show Your Work):</b></p> $1 \text{ kg/hr}$ $1 \times 4 = 4 \times 24 = 96 \text{ mL/day}$ <p>Calculated Min. Urine Output: <u>4</u> ml/hr</p> <p>Actual Pt Urine Output: _____ ml/hr</p>
	<p><b>10. Growth &amp; Development: List the Developmental Stage of Your Patient For Each Theorist Below and Document 2 OBSERVED Developmental Behaviors for Each Theorist. If Developmentally Delayed, Identify the Stage You Would Classify the Patient:</b>          Patient age: <u>1 month</u></p> <p><b>Erickson Stage:</b></p> <ol style="list-style-type: none"> <li>1. Trust vs mistrust - food: do they trust caregiver because they are throwing up after being fed.</li> <li>2. narcissism !! (at its highest)</li> </ol> <p><b>Piaget Stage:</b></p> <ol style="list-style-type: none"> <li>1. rooting</li> <li>2. sucking their thumb</li> </ol>	

Student Name \_\_\_\_\_

<p><b>11. Focused Nursing Diagnosis:</b> fluid &amp; electrolyte imbalance</p>	<p><b>15. Nursing Interventions related to the Nursing Diagnosis in #11:</b> 1. fluid replacement <b>Evidenced Based Practice:</b> reverse dehydration &amp; fluid &amp; electrolyte imbalances 2. oral care <b>Evidenced Based Practice:</b> avoid dry mucous membrane 3. proper nutrition <b>Evidenced Based Practice:</b> having pt sit upright after feeding reduced the risk of vomiting.</p>	<p><b>16. Patient/Caregiver Teaching:</b> 1. keep baby upright after feeding 2. prepare caregiver for surgery 3. patient can satisfy baby's need for sucking</p>
<p><b>12. Related to (r/t):</b> dehydration</p>		
<p><b>13. As evidenced by (aeb):</b> vomiting after feeding</p>		
<p><b>14. Desired patient outcome:</b> hydration &amp; electrolyte balance</p>		<p><b>17. Discharge Planning/Community Resources:</b> 1. improve nutrition &amp; hydration 2. relieve family anxiety 3. maintain mouth &amp; skin integrity</p>