IM5 (Pediatrics) Critical Thinking Worksheet **Patient Age:** 8 y/o **Patient Weight:** 26kg

Student Name: Brooke Jones	**Unit:** Pedi Floor **Pt. Initials:**	**Date:** 1/12/2022
1. Disease Process & Brief Pathophysiology (Identify Key Concepts to Your Patient and Include Reference): Sickle Cell disease is a red blood cell disorder in which hemoglobin S (HbS) replaces hemoglobin A (HbA) as the dominant hemoglobin. When exposed to dehydration, acidosis, hypoxia, and temperature elevations, HbS changes its structureand forms a crescent or sickle-shaped cell. The abnormal cell shape causes occlusion of small blood vessels, ischemia, and damage to affected organs. It is autosomal recessive. Swearingen, P. L., & Wright, J. (2019). All-in-One nursing care planning resource - E-book: Medical-surgical, pediatric, maternity, and psychiatric-mental health. Elsevier Health Sciences.	**2. Factors for the Development of the Disease/Acute Illness:** Both parents have the sickle cell trait African Americans Hispanic-Americans Middle Eastern, Asian, Indian, and Mediterranean descent	**3. Signs and Symptoms:** Dark urine Yellow eyes Painful swelling in hands and feet Pain episodes Stunted growth Stroke

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4. Diagnostic Tests Pertinent or Confirming of Diagnosis: Chorionic villus sampling from prenatal tissue Amniocentesis Newborn screening Sickledex CBC BMP	**5. Lab Values That May Be Affected:** Hgb Hct Reticulocyte count Platelets WBC	**6. Current Treatment (Include Procedures):** Medications Blood transfusions Stem cell transplant
7. Pain & Discomfort Management: List 2 Developmentally Appropriate Non-Pharmacologic Interventions Related to Pain & Discomfort for This Patient. 1. Distraction: While experiencing pain or discomfort, the child could be provided with a game or watch TV. **2.** Relaxation: Patient can use breathing exercises or listen to music while experiencing pain or discomfort. ***List All Pain/Discomfort Medication on the Medication Worksheet** Click here to enter text.	**8. Calculate the Maintenance Fluid Requirement (Show Your Work):** 10 kg x 100 = 1000mL 10 kg x 50 = 500mL 6 kg x 20 = 120mL. total= 1620mL/day, 67.5mL/hr **Actual Pt MIVF Rate:** **Is There a Significant Discrepancy?** No **Why?**	**9. Calculate the Minimum Acceptable Urine Output Requirement (Show Your Work):** 0.5 x 26kg = 13mL/hr **Actual Pt Urine Output:**

<table>
<tr><td>Student Name: Brooke Jones</td><td>Unit: Pedi Floor Pt. Initials:</td><td>Date: 1/12/2022</td></tr>
<tr><td></td><td colspan="2">10. Growth & 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:

Erickson Stage: Industry vs. Inferiority
1. Patient may exhibit low self-esteem due to not being able to participate in the same activities as their friends due to their disease.

2. The child might be working on their homework while in the hospital because they are beginning to understand the importance of work.

Piaget Stage: Concrete Operational Period
1. The patient could show they have an understanding of logic by noticing they get tired faster or have trouble breathing when they exercise.

2. The patient might understand that a small cup of juice that is filled to the top has the same amount of juice as a big cup that is filled half-way.</td></tr>
<tr><td>11. Focused Nursing Diagnosis:
Ineffective tissue perfusion</td><td rowspan="2">15. Nursing Interventions related to the Nursing Diagnosis in #11:
1. Elevate head of bed to comfortable level for the child.

Evidenced Based Practice:
Promotes chest expansion by decreasing pressure on the diaphragm.

2. Maintain adequate fluid intake and monitor urine output.

Evidenced Based Practice:
Dehydration causes an increase in sickling and occlusion of capillaries. Decrease in urine output</td><td rowspan="2">16. Patient/Caregiver Teaching:
1. Teach patient and caregivers the importance of immunizations and preventing affections

2. Drink plenty fluids

3. Avoid demanding physical activities</td></tr>
<tr><td>12. Related to (r/t):
Vasoocclusion and anemia</td></tr>
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<tr><td>13. As evidenced by (aeb):
Diminished peripheral pulses/capillary refill
Pallor
Palpitations
Tingling in extremities, bone pain</td><td rowspan="2">may indicate vascular occlusion.

3. Administer oxygen as prescribed

Evidenced Based Practice:
Delivering oxygen when a child is hypoxic eases WOB.</td><td rowspan="2">17. Discharge Planning/Community Resources:
1. Follow-up appointment

2. Call 911 if child is experiencing fever of 100.4 or higher, difficulty breathing, chest pain, or sudden weakness

3. Medical alert ID band</td></tr>
<tr><td>14. Desired patient outcome:
Within 2 hours after treatment or intervention, the patient's oxygen saturation is maintained at 95% or greater.</td></tr>
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