

<p style="text-align: center;"><b>Medications</b></p> <ul style="list-style-type: none"> <li>• Acetaminophen 160 mg/5 mL oral suspension <ul style="list-style-type: none"> <li>○ Nonopioid analgesic, antipyretic</li> <li>○ 15 mg/kg (19.2) = 288 mg Q6h</li> </ul> </li> <li>• dipHENhydramine elixir cup 6.25 mg Q6h <ul style="list-style-type: none"> <li>○ Antihistamine</li> </ul> </li> <li>• prednisolONE oral solution 35 mg BID <ul style="list-style-type: none"> <li>○ Corticosteroid</li> <li>○ 15 mg/5 mL = 11.67 mL</li> </ul> </li> <li>• Immune globulin human IV (Gamunex-C) 10% injection 15 g <ul style="list-style-type: none"> <li>○ Immune globulins</li> </ul> </li> </ul>	<p style="text-align: center;"><b>Demographic Data</b></p> <p><b>Admitting diagnosis:</b> Abnormal labs, r/o Immune Thrombocytopenic Purpura (ITP)</p> <p><b>Age of client:</b> 3 years, 10 months</p> <p><b>Sex:</b> M</p> <p><b>Weight in kgs:</b> 19.2 kg</p> <p><b>Allergies:</b> NKA</p> <p><b>Date of admission:</b> 09/07/2022</p> <p><b>Psychosocial Developmental Stage:</b> Initiative vs. Guilt</p> <p><b>Cognitive Development Stage:</b> Preoperational</p>	<p style="text-align: center;"><b>Pathophysiology</b></p> <p><b>Disease process:</b> Immune thrombocytopenic purpura (ITP) is characterized by a platelet count &lt;100,000/μL. Children present between 2 years and 5 years old with a predominance in males. In adolescence, there is a predominance of females. Children will present with a petechial rash, mucosal bleeding, and ecchymosis. ITP can also involve bleeding of the nasal passages (epistaxis), buccal and gingival surfaces (gum bleeding), GI tract, genitourinary system (Pietras &amp; Pearson-Shaver, 2022). Childhood ITP can often occur within weeks following an infection (e.g. chickenpox). Acute ITP starts suddenly and usually disappears within weeks and does not recur (Pietras &amp; Pearson-Shaver, 2022).</p> <p><b>S/S of disease:</b> Purpura on right side of neck and right thigh, Petechiae noted around the lips, mouth, oral mucosa, epistaxis</p> <p><b>Method of Diagnosis:</b> Complete blood count, platelet count &lt;100,000 μL, platelet count response to therapy (corticosteroids, IVIG), history and physical examination focused on estimating duration of thrombocytopenia to rule out other causes such as exposure to drugs, associated disorders, and infection.</p> <p><b>Treatment of disease:</b> Restriction from activities associated with bleeding risk when platelet count is less than 30,000 μL, avoid antiplatelet medications (aspirin, ibuprofen, and NSAIDs), prednisolone (corticosteroid) reduce inflammation and suppress the immune system, intravenous immune globulin (IVIG) contains antibodies that bind to cells in the spleen, which keep these cells from destroying the platelet antibodies. IVIG helps increase platelet count (St. Jude Children's Research Hospital, n.d.). Acetaminophen and diphenhydramine decrease the side effects of the IVIG (St. Jude Children's Research Hospital, n.d.).</p>
	<p style="text-align: center;"><b>Admission History</b></p> <p>The patient is a 3 year old male who was transferred from BroMenn Medical Center. The patient was brought to the ED by parents for lesions and scabs on mouth and lips. Mom states the patient had a minor nose bleed the night before. Nose bleed resolved on its own. Developed petechiae on his face and right side of neck, right thigh while in the ED. Labs show platelet count &lt;3000 μL.</p>	
	<p style="text-align: center;"><b>Medical History</b></p> <p><b>Previous Medical History:</b> Previously healthy, not on any regular medication, heart murmur of newborn</p> <p><b>Prior Hospitalizations:</b> N/A</p> <p><b>Past Surgical History:</b> 1/21/22 Dental surgery to treat dental caries</p> <p><b>Social needs:</b> N/A</p>	

### **Relevant Lab Values/Diagnostics**

Platelet: < 3000  $\mu$ L

(normal 202,000-403,000  $\mu$ L)

Risk of ecchymosis, excessive bleeding

WBC: 4.18

(5.14-13.38)

Risk for infection

Absolute neutrophils: 1.09 10<sup>3</sup>  $\mu$ L

(1.54 - 7.92)

Risk for infection

Immature plt fraction: 26.3%

(0.9-7.0)

Indicates rapid platelet destruction

### **Active Orders**

#### **Bleeding Precaution**

- Soft bristle toothbrush only
- Minimized IV/Lab attempts
- Bed rest

#### **Fall Precautions**

- High fall risk signage
- Pad around bed and placement of mats around the bed

#### **CBC with differential AM routine**

- Assess platelet count

## Assessment

<b>General</b>	Alert and awake. No signs of distress.
<b>Integument</b>	IV 22G Anterior, proximal, right forearm. Skin dry and warm with some bruising on the right side of neck. Scabbing bilateral top and bottom lips.
<b>HEENT</b>	PERRLA intact. Bilateral pupil accommodation normal. Conjunctiva clear Bilateral pupil 3mm.
<b>Cardiovascular</b>	Clear S1, S2 sounds without murmurs
<b>Respiratory</b>	Breath sounds non labored and symmetrical throughout, anteriorly and posteriorly.
<b>Genitourinary</b>	Diapers
<b>Gastrointestinal</b>	Soft, nontender, nondistended without masses or organomegaly. Bowel sounds active in all four quadrants. No guarding, rigidity or rebound tenderness.
<b>Musculoskeletal</b>	Normal and equal strength, normal ROM 0 Cummings Fall Scale
<b>Neurological</b>	15 Glasgow coma scale Arouses to voice
<b>Most recent VS (highlight if abnormal)</b>	<b>Time:</b> 0820  <b>Temperature:</b> 36.5 (97.7)

	<p><b>Route:</b> Axillary</p> <p><b>RR:</b> 20</p> <p><b>HR:</b> 116</p> <p><b>BP and MAP:</b> 112/69 and 85</p> <p><b>Oxygen saturation:</b> 98</p> <p><b>Oxygen needs:</b> Room air</p>
<b>Pain and Pain Scale Used</b>	0, FLACC pain scale

<b>Nursing Diagnosis 1</b>	<b>Nursing Diagnosis 2</b>	<b>Nursing Diagnosis 3</b>
Risk for bleeding related to scabbing on the lips and petechiae on face and neck as evidenced by platelet count <3,000/uL.	Risk for injury related to increased risk of bleeding as evidenced by critically low platelet count.	Risk for infection related to suppression of the immune system by steroids as evidenced by decreased WBC count and decreased absolute neutrophil count.
<b>Rationale</b>	<b>Rationale</b>	<b>Rationale</b>
Decreased platelet count increases risk of hemorrhage.	The patient could suffer from uncontrolled bleeding due to critically low platelets.	Prednisolone decreases inflammation and reduces the activity of the immune system.

<p style="text-align: center;"><b>Interventions</b></p> <p><b>Intervention 1:</b> Educate caregivers about precautionary measures to prevent tissue trauma.</p> <p><b>Intervention 2:</b> Educate caregivers about the signs of bleeding.</p>	<p style="text-align: center;"><b>Interventions</b></p> <p><b>Intervention 1:</b> The patient should wait for assistance before getting out of bed.</p> <p><b>Intervention 2:</b> The patient should use a soft bristle toothbrush.</p>	<p style="text-align: center;"><b>Interventions</b></p> <p><b>Intervention 1:</b> Wash hands and perform hand hygiene to prevent transmitting pathogens.</p> <p><b>Intervention 2:</b> Maintain strict asepsis for intravenous therapy.</p>
<p style="text-align: center;"><b>Evaluation of Interventions</b></p> <p>The caregivers will take precautionary measures such as padding bed railings and placing mat on the floor to prevent injury. The caregivers will monitor the patient for potential bleeding.</p>	<p style="text-align: center;"><b>Evaluation of Interventions</b></p> <p>Due to the risk of injury, the patient should wait for assistance before getting out of bed. The patient should use a soft bristle toothbrush to prevent injuring oral mucosa.</p>	<p style="text-align: center;"><b>Evaluation of Interventions</b></p> <p>The patient and the patient's mother will demonstrate good hand hygiene practice.</p>

### **References (3):**

Ackley, B. J., Ladwig, G. B., Makic, M. B. F., Martinez-Kratz, M., & Zanotti, M. (2022). *Nursing diagnosis handbook: An evidence-based guide to planning care*. Elsevier.

Capriotti, T. (2020). *Davis Advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis.

Pietras, N. M., & Pearson-Shaver, A. L. (2022). *Immune Thrombocytopenic Purpura*. National Library of Medicine. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK562282/>

St. Jude Children's Research Hospital. (n.d.). *IVIg treatment for ITP*.

<https://www.stjude.org/treatment/patient-resources/caregiver-resources/patient-family-education-sheets/hematology/ivig-treatment-for-ityp.html#:~:text=IVIg%20contains%20antibodies%20that%20bind,child's%20platelet%20count%20goes%20up.>