

### Medications

Pantoprazole (Protonix) – 20 mg PO Daily before breakfast

- Pharmacological class: Proton pump inhibitor
- Indications: Used to treat damage to the esophagus caused by stomach acid due to excessive vomiting
- Nursing Assessment: Give this medication 30 minutes before a meal

Polyethylene Glycol (MiraLAX) – 17 g PO Daily

- Pharmacological class: Laxative and Cathartic
- Indications: Constipation
- Nursing Assessment: Monitor fluid and electrolyte status prior to administration

Acetaminophen (Tylenol) – 330 mg PO q4 hours PRN

- Pharmacological class: Nonsalicylate
- Indications: Used to relieve mild to moderate pain due to the presentation of abdominal pain
- Nursing Assessment: Monitor hepatic function prior to administration by assessing AST and ALT.

### Demographic Data

**Admitting diagnosis:** Dehydration

**Psychosocial**

**Developmental Stage:**

**Age of client:** 8 years old

Industry vs. Inferiority

**Sex:** Female

**Weight in kgs:** 24 kg

**Cognitive:**

**Allergies:** NKA

Concrete Operational

**Date of admission:** 10/01/2021

### Pathophysiology

**Disease process:** Metabolic acidosis occurs when there is an imbalance between the acid and base system within the blood. The arterial pH is lower than 7.35 causing the body to be in an acidic state (Capriotti, 2021).

**S/S of disease:** Due to abnormal serum potassium and calcium level, signs and symptoms of metabolic acidosis include respiratory distress, headache, drowsiness, fatigue, confusion, seizures, and potentially a coma (Capriotti, 2021).

**Method of Diagnosis:** To diagnose metabolic acidosis an arterial blood gas is done. The blood gas will read a pH less than 7.35, a pCO<sub>2</sub> normal or slightly low, and a high serum potassium (Capriotti, 2021).

**Treatment of disease:** To treat metabolic acidosis, the patient will start sodium bicarbonate via IV. Also, the underlying cause of the acidosis will be treated to treat the metabolic acidosis (Capriotti, 2021)

### Admission History

The patient is an 8-year-old female who presented to the emergency department at Carle hospital on 10/01/2021 due to abdominal pain and vomiting. She was discharged from Carle on 09/29/2021 after treatment of similar symptoms. Her mother states she had a decreased appetite the following day. She had 6 - 8 episodes of non-bloody emesis after attempting to drink water and eat crackers. The mother also states that she has had no fevers, no cough, and no headache.

Assessment									
General	Integument	HEENT	Card			Musculoskeleta	Neurological	Most recent VS (highlight if abnormal)	Pain and Pain Scale Used
A&O x4 Patient was	Skin was warm to	Facial symmetry	S1 a	<p align="center"><b>Medical History</b></p> <p><b>Previous Medical History:</b> The patient has a history of autism, STED5 genotype, ptosis, strabismus, constipation, and hypotonia.</p> <p><b>Prior Hospitalizations:</b> The patient was hospitalized on 09/24/21 – 09/25/21 for vomiting and dehydration. She was also hospitalized on 09/26/21 – 09/29/21 for vomiting and constipation.</p> <p><b>Chronic Medical Issues:</b> The patients chronical medical history includes autism, STED5 genotype, ptosis, strabismus, and hypotonia.</p> <p><b>Social needs:</b> The patient needs people who can believe in her abilities.</p>			Neurological	Time:	Faces pain
<p align="center"><b>Relevant Lab Values/Diagnostics</b></p> <p>Upon arrival at Carle, the patient had an AST level of 40 U/L. The normal range for AST is 5-34 U/L. She also had an ALKP of 865 U/L. The normal range for ALKP is 9-500 U/L. These labs were done upon admission to assess liver function due to her consistent nausea and vomiting (Capriotti, 2020). She had a K+ level of 5.5 mmol/L. The normal K+ range is 3.5-5.1 mmol/L. She had a CO2 of 12.0. The normal range for CO2 is 22.0-29.0 mmol/L. They also performed a blood gas which concluded a pH of 7.294. The normal pH range is 7.31 to 7.41. She had a pCO2 of 24.1. The normal pCO2 is 41-51 mmHg. She had a pO2 of 81. The normal range for pO2 is 25-45 mmHg. Lastly, she had a HCO3 of 11.4. The normal range for HCO3 is 21.5-25.5 mmol/L. The remaining lab tests show that the patient is in metabolic acidosis due to dehydration (Capriotti, 2020).</p> <p>An XR of the kidneys/ureters/bladder (KUB) was done on 9/25 due to the abdominal pain and vomiting. The results show no abnormalities.</p>			PERRLA present.				0800		
	eczema.					distention.	due to generalized weakness, mother was standby assist.	<p align="center"><b>Active Orders</b></p> <p><u>Clear liquid diet</u>- the patient cannot tolerate a regular diet yet; she is ordered a clear liquid to maintain nutrition</p> <p><u>Vital signs q4 hours</u>- to monitor the status of the patient and trend any changes</p> <p><u>Strict intake and output</u>- to assess how much fluid and nutrition the patient is receiving</p> <p><u>CMP in the AM</u>- to trend electrolyte labs and fluid balance</p> <p><u>CBC with differential in the AM</u>- to trend labs on cells that circulate in the blood</p>	
								needs: RA	

<p align="center"><b>Nursing Diagnosis 1</b></p> <p>Deficient fluid volume related to inadequate fluid intake as evidenced by fluid loss through abnormal route.</p>	<p align="center"><b>Nursing Diagnosis 2</b></p> <p>Ineffective child eating dynamics related to unpredictable eating patterns as evidenced by physical challenge with eating.</p>	<p align="center"><b>Nursing Diagnosis 3</b></p> <p>Risk for electrolyte imbalances related to vomiting.</p>
<p align="center"><b>Rationale</b></p> <p>I chose this nursing diagnosis because the patient has frequent episodes of emesis which causes an insufficient amount of fluid to be retained in the body.</p>	<p align="center"><b>Rationale</b></p> <p>I chose this nursing diagnosis because the patient has an inability to swallow food and liquids without vomiting it back up.</p>	<p align="center"><b>Rationale</b></p> <p>I chose this nursing diagnosis because vomiting depletes fluid and electrolytes, which puts the patient at risk for electrolyte imbalances.</p>
<p align="center"><b>Interventions</b></p> <p><b>Intervention 1:</b> Monitor and record vital signs every 4 hours.</p> <p><b>Intervention 2:</b> Measure intake and output daily.</p>	<p align="center"><b>Interventions</b></p> <p><b>Intervention 1:</b> Teach the child's parents about nutritional requirements needed for specific weight and age.</p> <p><b>Intervention 2:</b> Monitor food consumption and record intake.</p>	<p align="center"><b>Interventions</b></p> <p><b>Intervention 1:</b> Monitor patient for physical signs of electrolyte imbalance.</p> <p><b>Intervention 2:</b> Collect and evaluate serum electrolyte results as ordered.</p>
<p align="center"><b>Evaluation of Interventions</b></p> <p>Patient's pulse rate, blood pressure, respirations, and body temperature will remain within set limits. The patient's urine output will remain at volume established for patient (Phelps, 2020).</p>	<p align="center"><b>Evaluation of Interventions</b></p> <p>Child consumes appropriate number of calories each day. Child's response to food consumption will be documented (Phelps, 2020).</p>	<p align="center"><b>Evaluation of Interventions</b></p> <p>Patient electrolyte levels will remain within normal limits. Patient remains safe from injury associated with electrolyte imbalances (Phelps, 2020).</p>

## References

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

Jones & Bartlett Learning. (2021). *2021 Nurse's drug handbook* (19<sup>th</sup> ed.). Jones & Bartlett Learning

Phelps, L. L. (2020). *Nursing diagnosis: Reference manual* (11<sup>th</sup> ed.). Wolters Kluwer.