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.

Relevant Lab Values/Diagnostics

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).

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.

Demographic Data

Admitting diagnosis: Dehydration

Age of client: 8 years old

Sex: Female

Weight in kgs: 24 kg

Allergies: NKA

Date of admission: 10/01/2021

Psychosocial Developmental Stage:

Industry vs. Inferiority

Cognitive:

Concrete Operational

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.

Medical History

Previous Medical History: The patient has a history of autism, STED5 genotype, ptosis, strabismus, constipation, and hypotonia.

Prior Hospitalizations: 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.

Chronic Medical Issues: The patients chronical medical history includes autism, STED5 genotype, ptosis, strabismus, and hypotonia.

Social needs: The patient needs people who can believe in her abilities.

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 pCO2 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)

Active Orders

Clear liquid diet- the patient cannot tolerate a regular diet yet; she is ordered a clear liquid to maintain nutrition

Vital signs q4 hours- to monitor the status of the patient and trend any changes

Strict intake and output- to assess how much fluid and nutrition the patient is receiving

CMP in the AM- to trend electrolyte labs and fluid balance

CBC with differential in the AM- to trend labs on cells that circulate in the blood

Assessment										
General	**Integument**	**HEENT**	**Cardiovascular**	**Respiratory**	**Genitourinary**	**Gastrointestinal**	**Musculoskeletal**	**Neurological**	**Most recent VS (highlight if abnormal)**	**Pain and Pain Scale Used**
A&O x4 Patient was in no distress. Patient was well put together.	Skin was warm to the touch, pink, dry, and intact. Color is appropriate for ethnicity. Patient is not a skin risk. Rash on abdomen, butt, and back related to eczema.	Facial symmetry with no tracheal deviation. Drooping of the eyelids related to ptosis. Squinting of the eyes related to strabismus. PERRLA present.	S1 and S2 heart sounds present. Strong peripheral pulses present in all extremities. Capillary refill less than 3 seconds.	All lung fields clear, equal, and bilateral posteriorly and anteriorly upon auscultation. Accessory muscle use not present.	Urine is pale yellow. No odor. No pain with urination. Patient voided 500mL in the morning of the clinical day.	Bowel sounds present and active in all four quadrants. The patients last bowel movement was on 09/30. The abdomen is soft and tender with no distention.	Patient has +5 strength in the upper and lower extremities on the right and left side. Patient has slight difficulty getting up to the bedside commode due to generalized weakness, mother was standby assist.	PERRLA present. Strength equal in all extremities. A&O x4. Clear speech present. Sensitive to touch, sound, and light.	**Time:** 0800 **Temperature:** 36.9 C **Route:** Oral **RR:** 20 **HR:** 109 bpm **BP and MAP:** 94/61 mmHg 73 **Oxygen saturation:** 99% **Oxygen needs:** RA	Faces pain scale Patient pointed to the face with no hurt, ->0 upon assessment at 1030.

Nursing Diagnosis 1 Deficient fluid volume related to inadequate fluid intake as evidenced by fluid loss through abnormal route.	**Nursing Diagnosis 2** Ineffective child eating dynamics related to unpredictable eating patterns as evidenced by physical challenge with eating.	**Nursing Diagnosis 3** Risk for electrolyte imbalances related to vomiting.
Rationale 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.	**Rationale** I chose this nursing diagnosis because the patient has an inability to swallow food and liquids without vomiting it back up.	**Rationale** I chose this nursing diagnosis because vomiting depletes fluid and electrolytes, which puts the patient at risk for electrolyte imbalances.
Interventions **Intervention 1:** Monitor and record vital signs every 4 hours. **Intervention 2:** Measure intake and output daily.	**Interventions** **Intervention 1:** Teach the child's parents about nutritional requirements needed for specific weight and age. **Intervention 2:** Monitor food consumption and record intake.	**Interventions** **Intervention 1:** Monitor patient for physical signs of electrolyte imbalance. **Intervention 2:** Collect and evaluate serum electrolyte results as ordered.
Evaluation of Interventions 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).	**Evaluation of Interventions** Child consumes appropriate number of calories each day. Child's response to food consumption will be documented (Phelps, 2020).	**Evaluation of Interventions** Patient electrolyte levels will remain within normal limits. Patient remains sage from injury associated with electrolyte imbalances (Phelps, 2020).

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* (19th ed.). Jones & Bartlett Learning

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