

Medications

Ibuprofen (Motrin, Advil) oral tablet 200 mg every 6-8 hours as needed (Jones & Bartlett Learning, 2023).
 Pharmacologic Class: NSAID (Jones & Bartlett Learning, 2023).
 Therapeutic Class: Analgesic, anti-inflammatory, antipyretic (Jones & Bartlett Learning, 2023).
 Reason for taking: To relieve pain
 Prior Nurse Assessment:
 Monitor liver enzymes, elevations may progress to severe hepatic reactions, including fatal hepatitis, hepatic failure, or liver necrosis (Jones & Bartlett, 2023).
 Monitor BUN and serum creatine levels, drug may cause renal failure (Jones & Bartlett, 2023).
 Monitor CBC for decreased hemoglobin and hematocrit, drug may worsen anemia (Jones & Bartlett, 2023).

Acetaminophen (Tylenol): 120mg every 4 to 6 hours, as needed, maximum: 600 mg in 24 hours (Jones & Bartlett Learning, 2023).
 Pharmacologic Class: Nonsalicylate, paraminophenol derivative (Jones & Bartlett Learning, 2023).
 Therapeutic Class: Antipyretic, nonopioid analgesic (Jones & Bartlett Learning, 2023).
 Reason for taking: Pain when it's 1-3
 Prior Nurse Assessment:
 Before and during long term therapy including parenteral therapy, liver function test results, including AST, ALT, bilirubin, and creatine levels, as ordered must be monitored because acetaminophen may cause hepatotoxicity (Jones & Bartlett Learning, 2023).
 Ensure that the daily dose of acetaminophen from all sources does not exceed maximum daily limits (Jones & Bartlett Learning, 2023).
 Ensure that the dose is based on the patient's weight (Jones & Bartlett Learning, 2023).

Montelukast (Singulair): 4mg daily in the evening, maximum: 4mg daily (Jones & Bartlett Learning, 2023).
 Pharmacologic class: Leukotriene receptor antagonist (Jones & Bartlett Learning, 2023).
 Therapeutic Class: Antiallergen, antiasthmatic (Jones & Bartlett Learning, 2023).
 Reason for taking: To treat asthma
 Prior Nurse Assessment:
 Montelukast shouldn't be abruptly substituted for inhaled or oral corticosteroids, expect to taper corticosteroid dosage gradually, as directed (Jones & Bartlett Learning, 2023).
 Monitor patient for adverse neuropsychiatric effects and notify prescriber if present, drug may need to be discontinued (Jones & Bartlett Learning, 2023).
 Monitor patient for adverse reactions, such as eosinophilia, cardiac and pulmonary symptoms, and vasculitis, in patient undergoing corticosteroid withdrawal, notify provider if such reactions occur (Jones & Bartlett Learning, 2023).

Demographic Data

Admitting diagnosis: Nausea/vomiting & abdominal pai

Age of client: 4 years old

Sex: Male

Weight in kgs: 15.3 kg

Allergies: No known allergies

Date of admission: 3/24/24

Admission History

Patient is a four-year-old male who has been having abdominal pain with new onset of nausea and vomiting that has started within the last 24 hours. This patient has had a jejunal atresia at birth and has not had any problems until recently in the last month he presents to the emergency department with the same symptoms, where he was monitored and sent home. Patient was admitted with nausea/vomiting, and abdominal pain, patients last bowel movement has been more than 24 hours, with the last bowel movement being small and hard. Parents called the doctor's office on Thursday where they said to give the patient MiralAX, but patient did not tolerate this, and parents brought him to the emergency department. Patient was admitted and is being monitored, he is currently on a clear liquid diet, and labs and x-rays are being done.

Pathophysiology

Disease process: A bowel obstruction is noted as being a partial or complete blockage of either the small or large intestine (Cleveland Clinic, 2023). The intestines move food and eventually food waste from the stomach to the rectum, which passes as stool when you poop (Cleveland Clinic, 2023). During an obstruction there's a block in the intestinal passageway slowing movement or grinding digestive processes to a halt (Cleveland Clinic, 2023). The block can prevent the bowel from working properly, leading to dangerous complications (Cleveland Clinic, 2023). This patient has not had a good regular bowel movement in over 24 hours, and the CT is noting possible bowel obstruction, as this is the second time within a month this patient has been in the hospital for nausea, vomiting, and abdominal pain relating to this problem.

S/S of disease: Signs and symptoms of a small bowel obstruction include abdominal pain, nausea, vomiting, lack of appetite, malaise, swollen, firm belly, lethargy, and severe constipation. My patient exhibited the signs including nausea, vomiting, and abdominal pain (Cleveland Clinic, 2023).

Method of Diagnosis: Diagnosis includes medical history including whether you have had any previous abdominal surgery, a physical examination to check for a swollen abdomen or masses (Cleveland Clinic, 2023). In addition, a complete blood count and electrolyte analysis will be done to show if there is severe dehydration, if dehydration is found then fluids will be started immediately (Cleveland Clinic, 2023). In addition, an abdominal x-ray, CT, and barium enema x-ray will be performed (Cleveland Clinic, 2023). My patient had a CT and was scheduled to have a barium x-ray.

Treatment of disease: Treatment includes IV fluids, nasogastric tube, medications, bowel rest, and possible surgery (Cleveland Clinic, 2023). This patient was given I/V fluids at this time, while more tests are still being ran.

Relevant Lab Values/Diagnostics

RBC
 Normal: 3.81 - 4.77 10⁶/µL
Reason: With some anemia the body increases the production of red blood cells and sends these cells into the bloodstream before they are mature enough, causing impairment with circulation of the red blood cells (Pagana, 2022). The patient is exhibiting high red blood cells which are continuing to be monitored to ensure these levels don't get too high or too low.

HGB
 Normal: 10.2-12.7 g/dL
Reason: High hemoglobin causes high blood viscosity, which results in both compromised oxygen delivery to tissues and cerebrovascular complications (Pagana, 2022). This lab is being monitored to ensure appropriate levels of hemoglobin, too much hemoglobin can mean something internally is going on.

PT
 Normal: 31.0-37.7s
Reason: This lab is being monitored to ensure appropriate levels of hemoglobin, too much hemoglobin can mean something internally is going on. A person with too many red blood cells will exhibit a high hemoglobin level and experience a headache and dizziness, in this case the blood work is showing the patient's red blood cells are high (Pagana, 2022).

Calcium
 Normal: 8.5-10.8
Reason: This is due to vitamin deficiency, which could be from patient vomiting. This lab is being monitored due to patient having nausea and vomiting which is altering his electrolyte numbers and BUN is to make sure that the electrolytes don't get too low (Pagana, 2022).

Creatinine
 Normal: 0.70-1.30
Reason: This low level could be due to low muscle mass or body weight and could indicate reduced kidney function or malnutrition (Pagana, 2022). This patient was born early at 36 weeks and 5 days, and the doctor states that he is underweight for where he should be at.

CO2
 Normal: 22-29
Reason: This could be due to kidney function or infection, or ketoacidosis related to diabetes (Pagana, 2022). This patient has a significant past medical history with surgery as an infant and then being hospitalized throughout the years for unidentified vomiting and abdominal pain, RSV, and most recently suspected pneumonia, there was no results showing any current infection.

BUN
 Normal: 7-17
Reason: This can be due to dehydration, certain medication, urinary tract obstruction, and kidney and liver disease (Pagana, 2022). This patient was born premature and currently has anemia and had a surgical attack surgery as a baby so it's important to monitor his blood work to ensure that his organs are functioning properly, and his numbers are getting to out of range.

CT Abdomen/pelvis with contrast
 There appears to be at least two markedly dilated small bowel segments, one to the right one to the left midline. When compared to 2/19/24 results the right dilated loop appears to have been present previously but dilated left side was not. Given segmental appearance of small bowel dilation the possibility of stricture is raised, possibly related to inflammatory bowel disease (Headings from Epic, 2024).

XXV KUB: No notable findings

Medical History

Previous Medical History: Patient has a medical history including Asthma, bilateral otitis media, jejunal atresia, premature at 36 weeks 5 days gestation labor complicated by meconium-stained fluids, Apgar scores were 7 and 8, abnormal findings on newborn screening: CAH, repeat at 48 hours, multiple amino acid elevations (TPN).

Prior Hospitalizations: Hospitalized at birth-8/2019, RSV- 1/2020, GI virus unidentified-3/2020, unspecified abdominal pain, nausea/vomiting- 2/2024.

Past Surgical History: Circumcision: 9/2019, exploratory laparotomy twice: 8/2019 and 9/2019.

Social needs: N/A

Active Orders

D5-).9% NaCl continuous to stay hydrated

Acetaminophen (Tylenol) 160mg/5mL, oral liquid every 4hrs PRN for pain

Albuterol HFA 90mcg/actuation inhaler 2 puff every 6 hours PRN for shortness of breath

Fentanyl PF injection 7.5 mcg IV push every 2 hours PRN for severe pain

Ibuprofen oral suspension 150 mg every 4 hours PRN for mild pain

Metoclopramide injection 1.5 mg every 6 hours PRN for nausea

Montelukast (singulair) tablet 4mg at bedtime for asthma

Assessment	
General	This patient is alert and is lying in bed watching a movie. This patient is alert and oriented X4, he appears to not be in any pain or distress, this patient appears well groomed in fresh clothing and his hair is freshly combed. Patient is staying well hydrated and nourished (Ricci, 2021).
Integument	Skin is warm and dry upon palpation. There was no rashes, lesions, or bruising noted on his body. Normal quality and quantity of hair, no noted clubbing, or cyanosis of the nails. Skin turgor is appropriate and capillary refill is less than 2 seconds. Braden score is 21 (Ricci, 2021).
HEENT	Head and neck are symmetrical. Carotid pulses bilaterally are palpable at 2+. No noted palpable lymph nodes. There is no noted discharge or drainage from the eyes bilaterally, sclera is white, conjunctiva is pink bilaterally. No noted discharge or swelling from the ears bilaterally, tympanic membrane noted bilaterally in both ears. Nares are dry bilaterally. Lips are pink, dry, and intact. The patient can swallow without difficulty. Tonsils are 2+ bilaterally. The posterior pharynx and tonsils are moist and pink without exudate. Uvula is midline, soft palate rises and falls symmetrically, hard palate intact. PERRLA is intact. The patient demonstrates hearing and vision bilaterally appropriately for age (Ricci, 2021).
Cardiovascular	This patient has a regular heart rate at 100 bpm and normal rhythm. S1 and S2 are heard clearly without any murmurs or gallops. Capillary refill is less than 2 seconds. Radial pulses are 2+ bilaterally. No jugular vein distention was noted (Ricci, 2021).
Respiratory	Normal rate and pattern of respirations are noticed. Breathing appears to be unlabored. Lungs are clear bilaterally anteriorly and posteriorly. No crackles, wheezes, or rhonchi are noted (Ricci, 2021).
Genitourinary	The patient is voiding, urine is dark yellow and has not had a bowel movement in over 24 hours . The patient doesn't have any pain with urination (Ricci, 2021).
Gastrointestinal	Patients' abdomen is soft and a little tender , there is a little pain upon palpitation . Bowel sounds are heard and normoactive in all four quadrants. This patient is having nausea and vomiting but has gotten better overnight, patient has not had a bowel movement in over 24 hours, last bowel movement was very little and hard . His last bowel movement was on 3/28/24 early in the morning. All extremities are pink, dry, and symmetrical. Pulses are 2+ bilaterally, no masses or lymph noted throughout. No edema noticed on inspection (Ricci, 2021).
Musculoskeletal	All extremities appear symmetrical with full range of movement. Patient has a steady and appropriate gait for age when standing up from the bed and moving around the room, patient can walk around appropriately for age. No noted swelling or tenderness. The patients fall risk score is 3 (Ricci, 2021).
Neurological	The patient is awake and alert and oriented X4. Arms and legs are equal in strength and strong bilaterally. PERRLA is normal EOMs are intact. The patient can move arms and legs bilaterally with no pain. Patients' behavior is appropriate for age, he was watching movies on the TV in the room and was playing with toy cars, he was very talkative and wanting to move around and play. The patient uses appropriate and clear speech when talking and can be understood during communication. Patients GCS scale is 15 (Ricci, 2021).

<p>Most recent VS (highlight if abnormal)</p>	<p>Time: 0800</p> <p>Temperature: 97.5 F</p> <p>Route: Oral</p> <p>RR: 24</p> <p>HR: 100 BPM</p> <p>BP and MAP: 104/57 and 77</p> <p>Oxygen saturation: 100% on room air</p> <p>Oxygen needs: None</p>
<p>Pain and Pain Scale Used</p>	<p>1 patient states little pain when palpating the abdomen at 0700, 1-10 pain scale used</p>

<p>Nursing Diagnosis 1</p>	<p>Nursing Diagnosis 2</p>	<p>Nursing Diagnosis 3</p>
<p>Dysfunctional gastrointestinal motility related to prematurity as evidenced by patient being born at 36 weeks and 5 days (Phelps, 2020).</p>	<p>Knowledge deficit related to poor knowledge on diet related to chronic constipation (Phelps, 2020).</p>	<p>Risk for constipation related to decrease in GI motility (Phelps, 2020).</p>
<p>Rationale</p> <p>Due to this patient being more prematurely at 36 weeks they tend to have more gastrointestinal problems as their gastrointestinal tract isn't fully developed yet (Capriotti, 2020).</p>	<p>Rationale</p> <p>As the child is growing and defining their palate and maybe picky and want to eat certain things, the parents need to have a better understanding that the child needs to eat an adequate diet to help prevent these symptoms and worsen the problem (Capriotti, 2020).</p>	<p>Rationale</p> <p>Due to this patient having gastrointestinal problems at birth, this patient is at a higher risk for constipation due to them having a surgery of jejunal atresia when they were an infant, there is a risk of them having constipation or other problems later in life with their gastrointestinal tract (Capriotti, 2020).</p>

<p style="text-align: center;">Interventions</p> <p>Intervention 1: Educate family regarding maintaining a natural fiber diet and adequate fluid intake. Intervention 2: Monitor intake and output to identify need for fluid balance</p>	<p style="text-align: center;">Interventions</p> <p>Intervention 1: Educate family on the importance of making sure their child is getting a well-balanced diet with plenty of fiber and fluids. Intervention 2: Educate family regarding maintaining a natural fiber diet and adequate fluid intake.</p>	<p style="text-align: center;">Interventions</p> <p>Intervention 1: Monitor frequency and characteristics of patients stools daily. Intervention 2: Emphasize importance of responding to urge to defecate.</p>
<p style="text-align: center;">Evaluation of Interventions</p> <p>Family was given information on what type of diet the child should be on, and intake and output have been continuously monitored while being in the hospital. Family members verbally acknowledge they understand they type of diet their child should be on to help prevent further complications. Intervention is ongoing but parents have a good understanding.</p>	<p style="text-align: center;">Evaluation of Interventions</p> <p>Family verbalizes and asks questions related to the appropriate diet the child needs to ensure that these symptoms don't reappear, and they don't continue having this problem. Parents have a good understanding of the appropriate diet the child needs and will continue with this diet when the child goes home.</p>	<p style="text-align: center;">Evaluation of Interventions</p> <p>Family verbalizes the understanding to monitor their child stools when they go to the bathroom, how often they are going, and when they need to report a problem. They also understand the importance with working with their child to make sure that when they have the urge to defecate that they go at that time and not hold it. Intervention is ongoing but parents have a good understanding.</p>

		What do you expect?	What did you observe?
Erickson's Psychosocial Developmental Stage	Pre-school Initiative vs. Guilt	Sense of initiative, imagination, imitation of adult behavior, likes to please parents, make up games, acts out roles of other people.	This child was there with his father, and he was trying to please him by taking medicine and drinking contrast for a test that he did not like, he was acting out characters in movies he was watching.
Piaget's Cognitive Developmental Stage	Pre-operational	Active imagination, egocentric short attention span, learns through observing and imitating.	This child had a very active imagination especially when watching animated movies, he had a very short attention span he would be playing with cars talking about one thing and then watching a movie the next minute.
Age-Appropriate Growth & Development Milestones	<ol style="list-style-type: none"> 1. Dressing themselves 2. Saying their name and age 3. Tells stories 		
Age-Appropriate Diversional Activities	<ol style="list-style-type: none"> 1. Watching TV 2. Playing with toy cars 3. Sleeping 		

References (3):

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