Medications

- Acetaminophen (Tylenol)- tablet 500 mg, oral every 4 hrs. PRN
  - -Pharm class: Nonsalicylate, para-aminophenol derivative
  - -Therapeutic use: Patient is taking medication for mild pain
  - -Nursing consideration: Know that before and during long-term therapy including parenteral therapy, liver function test results, including AST, ALT, bilirubin, and creatinine levels, as ordered must be monitored because acetaminophen may cause hepatotoxicity.
- Atorvastatin (Lipitor)- tablet 80 mg, oral once daily at bedtime
  - -Pharm class: HMG-CoA reductase inhibitor
  - -Therapeutic use: Used to control lipid levels
  - -Nursing consideration: Know that atorvastatin should not be used in patients taking cyclosporine, gemfibrozil, tipranavir plus ritonavir, or telaprevir because of high risk for rhabdomyolysis with acute renal failure.
- Pantoprazole (Protonix)- delayed release tab 40 mg, oral daily before breakfast
  - -Pharm class: Proton pump inhibitor
  - -Therapeutic use: decrease acid in stomach
  - -Nursing consideration: Administer delayed-release oral suspension 30 minutes before a meal mixed in apple juice or applesauce
- Clopidogrel (Plavix): tablet 75 mg, oral once daily
  - -Pharm class: P2Y12 platelet inhibitor
  - -Therapeutic use: blood thinner, reduces chance of getting blood clots
  - -Nursing consideration: "Determine if patient has a history of hypersensitivity that may have included a hematologic reaction to any other thienopyridine drug, such as prasugrel or ticlopidine due to allergic cross-reactivity
- Ondansetron hydrochloride (Zofran)- IV push 4 mg, once daily PRN
  - -Pharm class: "Selective serotonin (5-HT3) receptor antagonist"
  - -Therapeutic use: used to treat nausea and vomiting
  - -Nursing consideration: Know that if hypokalemia or hypomagnesemia is present, these electrolyte imbalances should be corrected before ondansetron is administered because of increased risk for QT-interval prolongation

Lab Values/Diagnostics

HGB (12.0-18.0 g/dL)-> 7.7-> Low levels of HGB can be caused from anemia (Pagana et al., 2019)
HCT (37.0-51.0%)-> 24.0 -> Low levels of HCT can be due to blood loss (Pagana et al., 2019)
Sodium (136-145 mmol/L)-> 217-> High levels of sodium can be caused by diarrhea (Pagana et al., 2019)
Chloride (22.0-29.0 mmol/L)-> 18.0-> Low levels of chloride can be caused by loss of body fluids from diarrhea (Pagana et al., 2019)
RBC (4.10-5.70 10^6/uL)-> 2.89-> Low levels of RBC can be caused by cancer (metastatic disease) (Pagana et al., 2019)
Abs lymph (1.00-4.90 10^3/uL)-> 0.97-> Low levels of abs lymph can be due to undernutrition (Pagana et al., 2019)
Imaging: A CT of the abdomen and pelvis was performed. The CT was performed to detect any diseases of the small bowel, colon, and other internal organs. Two scissile 5-7 mm polyps were found in the descending colon.

Demographic Data

Date of Admission: 4/12/22
Admission Diagnosis/Chief Complaint: Acute blood loss anemia/Fatigue, weakness, diarrhea (contains bright red blood)
Age: 71
Gender: Male
Race/Ethnicity: White
Allergies: None
Code Status: Full code
Height in cm: 185.4 cm
Weight in kg: 20.6 kg
Psychosocial Developmental Stage: Ego integrity vs despair
Cognitive Developmental Stage: Calm and accepting. Adequate decision-making
Braden Score: 16
Morse Fall Score: 8

Admission History

The patient came into the ED presenting with bright red blood diarrhea with worsening weakness/fatigue. The patient was diagnosed with acute blood loss anemia and has a history of metastatic lung disease. The patient has had 5 episodes of loose stools since discharge from CFH 2 days ago on 4/10/22. He has been experiencing loose stools for about 4 days now. The last 2 episodes contained streaks of bright red blood. The patient is experiencing fatigue throughout the entire body and is experiencing blood loss from the rectum. The diarrhea is intermittent, but the weakness/fatigue is ongoing. The patient describes the diarrhea as "painful and burning". The pain does not radiate anywhere else. When the patient moves around or stand up, he is experiencing worsening weakness/fatigue. The patient is also experiencing weight loss and decreased appetite. The pain and fatigue are reduced by resting and taking acetaminophen as needed. The patient has previously sought treatment for generalized weakness on 4/3/22 at CFH. At this moment, from a scale of 1-10, the patient states they are at a pain level of 3.

Medical History

Previous Medical History: Atherosclerosis of native arteries of the extremities with intermittent claudication, stroke, metastatic disease
Prior Hospitalizations: Hospitalized on 4/3/22. The patient came in with fatigue and worsening weakness.
Previous Surgical History: Elbow fracture surgery, upper gastrointestinal endoscopy, wisdom tooth extraction, wrist fracture surgery.
Social History: No use of alcohol or drugs. Former smoker for 40 years. Quit date: 7/25/21. Patient smoked 1 pack of cigarettes a day.

Pathophysiology

Disease process: Acute blood loss anemia develops from an excessive loss of red blood cells and depletion of iron. Vasopressin is released which shifts fluid to an intravascular compartment, and this results in hemodilution. This causes hypovolemia to turn into anemia. Chronic blood loss can be caused by cancer such as metastatic lung disease. A hemoglobin level of 7-8 g/dL is symptomatic.
S/S of disease: Fatigue, weakness, pale or yellowish skin, irregular heartbeats, shortness of breath, dizziness, lightheadedness, chest pain, cold hands, and feet
Method of Diagnosis: Check hemoglobin levels (level of <7 g/dL suggests acute anemia). Ultrasound and MRI is used to rule out any bleeding locations.
Treatment of disease: Provide oxygen and cauterize any bleeds. Blood may need to be replaced through transfusion if hematocrit levels are <20%. Blood transfusion may be needed to regulate heme concentration. It is important to take iron supplements.

Active Orders

- **Insert a 12-lead ECG on the patient**
  - **It records electrical activity of the heart. The patient needs to be monitored for irregular heartbeat.**
- **Provide the patient with oxygen per RT protocol**
  - **The patient may experience shortness of breath with anemia, so it is important to keep oxygen saturation high to help them breath when needed.**
- **Insert the foley catheter on the patient**
  - **The patient is experiencing generalized weakness, and he is at risk for falls if he gets up to go to the bathroom.**
- **Continue monitoring hemoglobin levels**
  - **The patient's hemoglobin levels have significantly dropped due to anemia, so it is important to monitor the levels daily.**
- **Monitor the patient's intake and output every 4 hours**
  - **Anemia can cause dehydration, so it is important to ensure the patient is drinking plenty of fluids to keep themselves hydrated.**

Physical Exam/Assessment

General: The patient is alert and oriented x4. The patient does not seem visibly distressed. Pt well dressed in clean gown. Pt's skin, hair, nails clean and well maintained

Integument: Skin color: White. Character: Skin is warm and dry upon palpation. Temperature: Taken orally and was 98.1F. Turgor: Skin has normal turgor. Pt has no visible bruising. Normal quantity, distribution, and texture of hair. Braden score: 16. The patient does not have a JP drain

HEENT:
Head/Neck: Head and neck are symmetrical. Normocephalic and atraumatic
Ears: Left/right external ear normal
Eyes: No visible drainage from eyes, the bilateral sclera is white, the bilateral cornea is clear, bilateral conjunctiva is pink. Bilateral lids are moist and pink without any discharge
Extraocular movements: extraocular movements intact
Conjunctiva/sclera: conjunctivae normal
Pupils: pupils are equal, round, reactive to light
Nose: Septum is midline and no visible bleeding from nose
Teeth: Did not notice plaque or tartar. Teeth are white and somewhat aligned with gums. The mucous membrane is moist

Cardiovascular: Normal heart rate and rhythm. Clear S1 and S2 without any murmurs. Peripheral pulse: 3+. Capillary refill: 2 seconds. No edema or neck vein distention

Respiratory: No accessory muscle use. Regular depth and pattern; unlabored; expansion symmetrical. Breath sounds are clear and equal bilaterally, no cough

Genitourinary: Clear yellow. No pain with urination. No dialysis. Genitals appear to be normal. The patient has a foley catheter (Size: 12 Fr)

Musculoskeletal: Neurovascular status: normal. No swelling. Limited range of motion. Cervical back- normal range of motion. Strength: Patient noticeably weak. Supportive devices: walker. ADL assistance: none. Fall risk: yes. Fall risk score: 8

Neurological: Patient is alert and oriented x4. Orientation, mental status, speech, and sensory are all within normal limits. Strength is not equal in all extremities. Does not move all extremities well. Patient has weak left- and right-hand grip, weak left and right dorsiflexion, and weak left and right plantar flexion. Glasgow coma score: 15. PERRLA: yes, normal pupil accommodation. LOC: patient awake and alert

Most recent VS (include date/time and highlight if abnormal): Temp: 98.1 F(oral), Pulse: 93, Resp: 14, O2: 94%, BP: 126/74

Pain and pain scale used: Pain: 3 (Scale 0-10)

Nursing Diagnosis 1 Risk for fatigue related to decreased hemoglobin and diminished oxygen-carrying capacity of blood as evidenced by report of fatigue and lack of energy	Nursing Diagnosis 2 Risk for malnutrition related to iron deficiency as evidenced by a hemoglobin level of 7.7	Nursing Diagnosis 3 Risk for decreased cardiac output related to low oxygen saturation cardiac as evidenced by acute blood loss anemia
Rationale The patient came in with complaints of weakness and fatigue. The patient was also previously admitted with generalized weakness on 4/3/22. Since then, the patient has been experiencing ongoing weakness. The patient has low levels of hemoglobin which can indicate anemia and result in fatigue/weakness.	**Rationale** Acute blood loss anemia causes iron deficiency. Hemoglobin levels help to measure iron levels. The patient's hemoglobin level is substantially low which indicated iron deficiency and malnutrition.	**Rationale** The patient is prone to experiencing shortness of breath considering his condition. It is important to monitor the patient's oxygen saturation. Without enough iron, the body is not able to produce enough red blood cells that allows it to carry oxygen.
Interventions Intervention 1: Assess the patient's ability to use a call light or other safety emergency system. Remove anything that increases risk for fall. Intervention 2: Assess the patient's range of motion and perform exercises in bed. Turn the patient every 2 hours to prevent bed sores.	**Interventions** Intervention 1: Inform the patient that they will need to consume foods high in iron. The patient's intake and output will also be monitored. Intervention 2: The patients hemoglobin levels will be checked daily to detect if there are any improvements from the iron consumption.	**Interventions** Intervention 1: The patient will work with respiratory therapy to help maintain O2 levels if needed. The patient will be educated on oxygen therapy. The patient will also be put in a semi-fowlers position. Intervention 2: Monitor and record vital signs every 4 hours. Constant or sudden changes in the vital signs can indicate worsening condition. This will allow for interventions if needed.
Evaluation of Interventions The patient did well with demonstrating how to use the call light. The patient has an indwelling catheter, so he does not have to get up and increase risk for falls. Physical therapy will work with the patient to have perform exercises in bed.	**Evaluation of Interventions** The patient understood why they needed to consume foods high in iron. The patient was aware they needed to consume foods like spinach, red meat, and legumes. The patient's hemoglobin levels were checked daily to assess the effectiveness of treatment.	**Evaluation of Interventions** The patients' vital signs were monitored every four hours. The patient was put in a semi-fowlers position to aid in maximum lung expansion. The patient was provided with education on oxygen therapy, and respiratory team was aware that the patient may need to be put on oxygen if their condition starts to deplete.

References (3) (APA):

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