

Medications

- Spironolactone (Aldactone) 12.5mg tablet orally daily at 0900. Pharmacologic class: Potassium sparing diuretic. Therapeutic class: Diuretic. The patient is taking this medication to assist with the removal of excess fluid related to his current edema present in the RLE and LLE. This medication is also being utilized to assist with the patient's hypertension diagnosis and cirrhosis diagnosis. Assess the patient for impaired neurologic impairment and alterations in fluid and electrolyte imbalance (Jones & Bartlett, 2022).
- Phenytoin (Dilantin) 100 mg. tablet orally daily at 0900. Pharmacologic class: Hydantoin derivative. Therapeutic class: Anticonvulsant. This medication is being utilized to assist in the treatment of the patient's seizure diagnosis. Assess the patient for a new onset of severe skin reactions or worsening edema before administering this medication (Jones & Bartlett, 2022).
- Metoprolol tartrate (Lopressor) 25 mg. tablet orally twice daily. Pharmacologic class: Beta, adrenergic blocker. Therapeutic class: Antianginal, antihypertensive. This medication is being utilized to assist in the management of the patient's diagnosis of hypertension. Assess the patient for signs of bradycardia or worsening heart failure (Jones & Bartlett, 2022).
- Methocarbamol (Robaxin) 1000 mg. tablet orally every 6 hours. Pharmacologic class: Carbamate derivative. Therapeutic class: Skeletal muscle relaxant. This medication is being utilized to assist in the relaxation of the client's muscles because of the pain experienced in his RLE and LLE. Assess the patient's blood pressure to ensure they are not experiencing hypotension because this medication could lower the patient's blood pressure dramatically (Jones & Bartlett, 2022).
- Levetiracetam (Keppra) 500 mg. tablet orally twice daily. Pharmacologic class: Pyrrolidine derivative. Therapeutic class: Anticonvulsant. This medication is being utilized to assist in the treatment of the patient's seizure diagnosis. Assess the patient for fever, bleeding, or significant weakness if this occurs hold the medication and report to the PCP immediately (Jones & Bartlett, 2022).

Demographic Data

Date of Admission: 3/10/2024
Admission Diagnosis/Chief Complaint: Generalized abdominal pain and chest pain.
Age: 60
Gender: Male
Race/Ethnicity: Caucasian
Allergies: NKA
Code Status: Full Code
Height in cm: 165.1 cm.
Weight in kg: 80 kg.
Psychosocial Developmental Stage: Ego Integrity vs. Despair.
Cognitive Developmental Stage: Formal operational.
Braden Score: 13
Morse Fall Score: 70
Infection Control Precautions: No infection control precautions noted.

Pathophysiology

Disease process: The elevation of blood pressure is a direct result of the body's blood pumping with a larger force through arteries than normal causing an elevation in blood pressure. Hypertension also causes a higher level of resistance directly against the hearts left ventricle. When the resistance occurs the pressure is elevated in the aorta which results in the left ventricle being over worked. Hypertension can lead to injury for all arteries and vessel walls throughout all body systems resulting in the failure of other body systems or organs leading to numerous life-threatening events that can occur (Capriotti & Frizzell, 2020).

S/S of disease: Elevated blood pressure, headache, nosebleeds, blurred vision, and palpitations may occur (Capriotti & Frizzell, 2020).

Method of Diagnosis: Causes related to other disease processes must be addressed that may be an underlying cause of hypertension and diagnostic testing should be provided to rule out these disorders. Once ruled out ECG, CBC, urinalysis, glucose, potassium, creatinine, and calcium testing should be provided (Capriotti & Frizzell, 2020).

Treatment of disease: To treat hypertension medications can be utilized along with lifestyle modifications which are often the most effective. These modifications include a cardiovascular diet, reducing stress levels, smoking cessation, and frequent exercise (Capriotti & Frizzell, 2020).

Lab Values/Diagnostics

Current abnormal lab values include an elevated glucose of 103. A decreased potassium (3.5-5.0 mEq/L) level of 3.4 mEq/L. A decreased calcium (9-11 mg/dL) level of 7.1 mg/dL. A decreased total protein (6.2-8.2 g/dL) of 4.2 g/dL. A decreased Albumin (3.4-5.4 g/dL) of 1.7 g/dL. An increased total bilirubin (0.1-1.2 mg/dL) of 1.8 mg/dL. An increased INR (< 1 Sec.) of 1.6 seconds. An increased prothrombin time (10-13 sec.) of 19.0 seconds. A decreased RBC (4.5-5.5 /uL) of 2.55 /uL. A decreased HGB (13-18 g/dL) of 7.9 g/dL. A decreased hematocrit (39%-54%) result of 25.7%. An increased MCV (80-100 fl.) of 100.8 fl. A decreased MCHC (32-36 g/L) of 30.7 g/L. An increased RDW (12%-15%) of 17.5%. An increased RDW-SD (40.0-55.0 fL.) of 64.3. And decreased platelet (150,000-450,000 /uL) counts of 104,000 /uL.

A CT of the patient's lungs was performed due to the patient's report of experiencing chest pain and difficulty breathing. The findings concluded that the patient is experiencing diminished perfusion in both upper lobes of his lungs. The left upper lobe is noted as more pronounced hypoperfusion in the anterior segment. The right lower anterior segment of the lobe is noted as experiencing hypoperfusion and that it could be a result of a pulmonary embolus. A CT of the abdomen and pelvis has been ordered but not performed at this time. An AR chest Xray was performed, and the findings included hyperinflation, coarsening of lung markings, and the heart size within normal limits. No findings of a pneumothorax, infiltration, consolidation, or effusion.

Admission History

A 60-year-old male arrived at the ED on 3/10/2024 with the chief complaint of RLQ pain gradually worsening over the last two weeks and reports to the ED that the "pain is now unbearable". The patient denies utilizing pain management prior to arriving at the ER. The patient reports that the pain is a sharp stabbing pain localized in specific areas that is continuous. The patient reports he is also experiencing right leg pain and bilateral swelling. The patient reports chest pain and experiencing SOB. Patient noted as appearing hypoxic and tachypneic. The patient reports mobility impairment due to his condition and reports the use of a walker and assistance when ambulating. Patient states that "nothing makes it better or worse". The patient's status can be aggravated by his existing conditions of hypertension and thrombocytopenia and his history of seizure disorder, CVA, and alcohol abuse.

Medical History

Previous Medical History: The patient has a history of cirrhosis and reports daily alcohol use. The patient reports a history of alcoholism, aneurysm, CVA, hypertension, thrombocytopenia, and seizures.

Prior Hospitalizations: The patient reports prior hospitalizations that include hospitalizations for an aneurysm that occurred in December of 2016. A hospitalization for hematemesis in November of 2018. And a hospitalization for choledocholithiasis with associated abdominal pain and uncontrolled vomiting in December of 2018.

Previous Surgical History: The patient reports a surgical history for correction of a brain aneurysm, cerebral four vessel angiogram, and an upper gastrointestinal endoscopy.

Social History: The patient reports a history of alcohol abuse consisting of six cans of beer per week. The patient reports the use of tobacco products consisting of 0.25 packs a day for twenty-two years. The patient denies the use of illegal drugs.

Active Orders

- Seizure and fall risk precautions in place until discontinued by physician. This order is related to the patient's seizure diagnosis to ensure the patient's safety.
- A cardiac diet consisting of an addition of a high protein ensure included with each meal. This dietary order should be followed until discontinued by the physician. This order is related to the patient's hypertension diagnosis and the patient's reported chest pain and the noted tachycardia and irregular rhythm during the patient's cardiac assessment.
- Continuous cardiac monitoring should be utilized until discontinued by the physician or cardiac specialist. This order is related to the patient's hypertension diagnosis and the patient's reported chest pain and the noted tachycardia and irregular rhythm during the patient's cardiac assessment.
- Pneumatic compression stockings utilized bilaterally until discontinued. Monitor intake and output each shift. This order is related to the edema noted in the patient's RLE and LLE to assist in reducing the edema and increasing venous blood flow.
- Vitals performed every four hours and documented. This order is related to the importance of monitoring vitals to assist in the prevention of the patient's condition worsening and for basic healthcare associate needs.
- Provide external urinary catheter care until discontinued. Increase activity as tolerated until discontinued. This order is related directly to the prevention of infection and skin breakdown related to the patient's utilization of an external catheter.
- Notify the physician if heart rate is lower than 50 or higher than 120, systolic blood pressure lower than 90 or higher than 170, diastolic blood pressure higher than 90, and if there is an unstable rhythm or an acute change in rhythm until discontinued. This order relates to the patient's diagnosis of hypertension and the medications that he is currently utilizing that may cause an increase or decrease in blood pressure.

Physical Exam/Assessment

General: Patient is alert and oriented x4 to person, place, and time, well groomed, and no acute distress.

Integument: The patient's skin is pink, dry, and warm with bruises noted on multiple areas on his left arm reported as failed IV attempts. Skin turgor 2+. Edema noted bilaterally on both RLE and LLE. Braden score noted as 13. No drain present. Peripheral IV noted in the anterior left upper arm. A vascular incision/vascular puncture is noted as venous/right.

HEENT: Head/neck symmetrical, non-tender, no abnormalities, and no nodules noted. Eyes symmetrical bilaterally, sclera white, cornea clear, conjunctiva pink, no drainage. PERRLA bilaterally. Ears are symmetrical bilaterally with no visible or palpable deformities, lumps, or lesions. Bilateral frontal sinuses are nontender to palpation, septum is midline, and no visible bleeding or drainage noted. Oral mucosa moist/pink teeth intact with no signs of missing or damaged teeth. Uvula is midline and tonsils moist/pink.

Cardiovascular: Clear S1 and S2 without murmurs, gallops, or rubs noted. Irregular rate and rhythm and tachycardia noted. Brachial and radial pulses 2+, capillary refill 2+, and no sign of vein distention noted. Lower extremity bilateral edema present.

Respiratory: Hypoxia, tachypnea, non-symmetrical respirations, mild accessory muscle use, and labored breathing noted. Lung sounds clear anterior/posterior bilaterally, no wheezes, crackles, or rhonchi noted. Continuous use of 3 L oxygen via nasal cannula noted.

Genitourinary: Urine is clear and yellow in color. Patient currently is utilizing an external catheter and 480 mL noted at last urination as of 2 hours ago. No pain with urination.

Gastrointestinal: Client reports that his diet at home is not limited and that he tries to eat a balanced diet. His current diet while at the hp consists of cardiac diet. Bowel sounds normal and active in all 4 quadrants and the client reports last BM as 3/18/2024 at 0800 and reports no pain, bleeding, or change in bowel movements. Abdomen is distended with tenderness and pain reported in right lower quadrant upon palpation. No incisions, scars, drains, or wounds noted. No ostomy, nasogastric, or feeding tube noted.

Musculoskeletal: All right sided extremities have a limited range of motion (ROM) related to the client's previous CVA. Hand grips and pedal push and pulls demonstrate client's limited and unequal strength. Walker and two-person assistance for ambulation utilized at this time. Assistance required for ADLs reported. Fall score 70 and client is considered a high risk.

Neurological: The patient does not exhibit MAEW throughout all extremities, PERLA noted bilaterally, strength is not equal in arms and legs bilaterally and a severe right sided deficit is noted. Client is oriented x4 to person, place, situation, and time. Normal cognition noted. Speech is clear. LOC alert.

Most recent VS (include date/time and highlight if abnormal): The patient's vitals measured at 11:00 consists of a blood pressure of 112/58, pulse of 80, respirations of 18, O2 of 93% with patient utilizing 3 L via nasal cannula, and a temperature of 97.7 F.

Pain and pain scale used: The patient reports no pain currently experienced and rates pain as a 0/10 on the numeric pain scale.

<p style="text-align: center;">Nursing Diagnosis 1</p> <p>Risk for unstable blood pressure related to cardiovascular status and fluid retention as evidenced by history of present illness (Phelps, 2023).</p>	<p style="text-align: center;">Nursing Diagnosis 2</p> <p>Risk for decreased cardiac output related to cardiovascular status and respiratory status as evidenced by the patient's present illness (Phelps, 2023).</p>	<p style="text-align: center;">Nursing Diagnosis 3</p> <p>Excess fluid volume related to cardiovascular status as evidenced by lower extremity bilateral edema (Phelps, 2023).</p>
<p style="text-align: center;">Rationale</p> <p>The patient is currently being treated for hypertension and edema and is physically experiencing abdominal pain, chest pain, lower extremity pain, edema, and tachycardia (Phelps, 2023).</p>	<p style="text-align: center;">Rational</p> <p>The patient is currently being treated for signs and symptoms of hypertension and respiratory related complications that include tachycardia, irregular rhythm, tachypnea, and hypoxia (Phelps, 2023).</p>	<p style="text-align: center;">Rationale</p> <p>The patient is currently being treated for signs and symptoms of edema in the patient's RLE and LLE. Swelling, pain, diminished skin turgor, and inability of extremity use are noted (Phelps, 2023).</p>
<p style="text-align: center;">Interventions</p> <p>Intervention 1: Assist in the patient with maintaining their blood pressure within normal limits. Maintaining the patient's blood pressure at a normal level assist in the prevention of an unstable blood pressure and additional health concerns (Phelps, 2023).</p> <p>Intervention 2: Patient will take hypertension medications as directed. Controlling the patient's hypertension assists in the prevention of an unstable blood pressure and additional health concerns (Phelps, 2023).</p>	<p style="text-align: center;">Interventions</p> <p>Intervention 1: Monitor the patient's heart and lung sounds and report abnormal sounds upon development to the provider (Phelps, 2023).</p> <p>Intervention 2: Monitor the patient for chest pain and request the patient to report any onset of chest pain immediately (Phelps, 2023).</p>	<p style="text-align: center;">Interventions</p> <p>Intervention 1: The patient will utilize a cardiac diet to ensure a limited amount of sodium intake. Fluid intake will be monitored and measured and documented (Phelps, 2023).</p> <p>Intervention 2: The patient will be administered diuretics to assist in the promotion of fluid excretion. Removal of excess fluids is essential when edema and cardiovascular risks are present (Phelps, 2023).</p>

<p style="text-align: center;">Evaluation of Interventions</p> <p>The patient has received hypertension medications and maintained a normal blood pressure throughout the shift. Continued monitoring and medication management will remain in place.</p>	<p style="text-align: center;">Evaluation of Interventions</p> <p>The patient's heart sounds, lung sounds, and chest pain have been monitored throughout the shift. No abnormalities or changes were noted. Continued monitoring will remain in place.</p>	<p style="text-align: center;">Evaluation of Interventions</p> <p>The patient has received careful monitoring of existing risks. The patient has utilized the provided cardiac diet and fluid restrictions in place. Input and output measurement and diet will remain in place and monitoring will continue.</p>
--	---	--

References (3) (APA):

Capriotti, T., & Frizzell, J. P. (2020). *Pathophysiology: Introductory concepts and clinical perspectives*. (2nd ed.). F.A. Davis Company.

Learning, J. & B. (2022). *Nurse's Drug Handbook 2023*. Jones & Bartlett Learning.

Phelps, L. L. (2023). *Nursing diagnosis reference manual*. Wolters Kluwer.