Medications

Warfarin (Coumadin):
25mg oral once daily on Mon, Wed, and Fri.
Pharmacologic: coumarins (Davis, 2024).
Therapeutic: anticoagulants (Davis, 2024).
Reasoning: prevent clots from forming.
Key nursing assessment(s) prior to administration: Monitor PT and INR levels before and during therapy (Davis, 2024).

Tamsulosin (Flomax)
0.4 oral BID
Pharmacologic: alpha-adrenergic blockers (Davis, 2024).
Therapeutic: benign prostatic hyperplasia (BPH) agents (Davis, 2024).
Reasoning: treat enlarged prostate gland.
Key nursing assessment(s) prior to administration: assess patient for symptoms of BPH and rectal exam prior to and periodically throughout therapy to assess prostate size (Davis, 2024).

Finasteride (Proscar):
5mg oral daily
Pharmacologic: androgen inhibitors (Davis, 2024).
Therapeutic: benign prostatic hyperplasia (BPH) agents, hair regrowth stimulants (Davis, 2024).
Reasoning: treat benign prostatic hyperplasia (BPH).
Key nursing assessment(s) prior to administration: Digital rectal examinations should be performed before and periodically during therapy for BPH (Davis, 2024).

Enoxaparin (Lovenox):
80 mg subcutaneous Q12H
Pharmacologic: antithrombotic, low molecular weight heparins (Davis, 2024).
Therapeutic: anticoagulants (Davis, 2024).
Reasoning: prevent deep venous thrombosis (DVT).
Key nursing assessment(s) prior to administration: monitor clotting times (aPTT) (Davis, 2024).

Carvedilol (Corey):
3.125mg oral BID
Pharmacologic: beta-blockers (Davis, 2024).
Therapeutic: antihypertensives (Davis, 2024).
Reasoning: treatment for hypertension.
Key nursing assessment(s) prior to administration: Monitor vital sign before and during therapy and take with a meal (Davis, 2024).

Lab Values/Diagnostics

Lab
INR: 2.2 (0.9 – 1.1 ratio)
Reason: The patient is taking warfarin. Warfarin causes high INR levels because it prevents clots.

Prothrombin time: 24.8 sec (11.7 – 13.8 sec)
Reason: The patient's blood is taking longer to clot.

WBC: 3.70 10^3/uL (4.00 – 11.00 10^3/uL)
Reason: The patient has inflammation.

RBC: 2.91 10^6/uL (11.00-16.0 10^6/uL)
Reason: The patient has low oxygen levels.

HGB: 8.3 g/dL (11.00 – 16.0 g/dL)
Reason: The patient has low oxygen levels in the blood, also known as hypoxia.

HCT: 28.3% (34.0% - 47.0%)
Reason: The patient has anemia that can cause low hematocrit levels.

Platelet: 89 10^3/uL (140 – 400 10^3/uL)
Reason: The patient is taking warfarin, causing low platelet levels.

CO2: 32.0 mmol/L (22.0 – 29.0 mmol/L)
Reason: The patient's lungs are having a problem removing CO2.

BUN: 45 mg/dL (8 – 26 mg/dL)
Reason: The patient's kidney function isn't working correctly.

Calcium: 7.9 mg/dL (8.9 – 10.6 mg/dL)
Reason: The patient has inadequate vitamin D in his diet.

Diagnostics
A Sonogram of the scrotum was done because of an acute, non-tender, severe scrotal swelling.
Impression: scrotal wall thickening and bilateral hydroceles. No evidence of torsion.

Demographic Data

Date of Admission: 3/13/2024
Admission Diagnosis/Chief Complaint: Congestive heart failure / Shortness of breath (SOB) and Edema.
Age: 87 years old
Gender: Male
Race/Ethnicity: Caucasian
Allergies: Rifampin, Norco (Hydrocodone-acetaminophen)
Code Status: DNR/DNI
Height in cm: 177.8 cm (5 ft. 10 in.)
Weight in kg: 81.5 kg (179 lb. 9.6 oz)
Psychosocial Developmental Stage: Integrity vs. Despair
Cognitive Developmental Stage: Formal operational
Braden Score: 18
Morse Fall Score: 14
Infection Control Precautions: N/A

Admission History

The patient went to the hospital with progressively worsening shortness of breath (SOB) and abdominal distention, and dyspnea on exertion. The patient was admitted to inpatient care on 3/13/2024 for the signs and symptoms related to his chronic heart failure. The patient stated that the SOB happened the night before and abdominal distention had been there for a couple of days. The patient described SOB as pressure, like someone sitting on his chest. The patient tried lying down to rest to relieve the feeling of pressure, but it didn't help.

Medical History

Previous Medical History: Atrial fibrillation (A fib), actinidic keratitis, anemia, benign prostatic hyperplasia (BPH), BRVO (branch retinal vein occlusion), cardiac failure congestive, cataract, chronic heart failure, erectile dysfunction, elevated prostate-specific antigen (PSA), epiretinal membrane (ERM), finch's corneal dystrophy, glaucoma, gout, hearing loss, Hypertension (HTN), hyperlipidemia, ICD (implantable cardiac defibrillator), lactose indolence, mechanical heart valve, osteoporosis, restless legs (RLS), sleep apnea, venous stasis.

Prior Hospitalizations: 11/25/2023 for a hematoma in the left leg and elevated INR. 11/20/2023 for shortness of breath (SOB).

Previous Surgical History: Cataract removal (phacoemulsification), heart valve replacement, Cath lab (cardiac catheterization lab), automatic implantable cardioverter defibrillator (AICD), and vitrectomy

Social History: Former smoker of half a pack a day for 25 years, quit 44 years ago. Drinks alcohol 2-3 times a year—no drug use.

Pathophysiology

Disease process: Heart failure is a frequent condition brought on by the ventricle becoming weaker and unable to pump blood sufficiently to meet the needs of the tissue. Increased fluid volume or volume overload, reduced ventricular contractile function, deteriorated ventricular filling, and impaired ventricular filling are the four main pathological alterations that can cause heart failure. Each of them has the potential to lower cardiac output and heart failure-related compensatory mechanisms. The heart is a single muscle organ whose strength, rhythm, and efficiency depend upon each other. Both ventricles are impacted by the metabolic and pressure abnormalities that influence the myocardium in heart failure. As the illness progresses, a defect or weakening on one side of the heart will eventually affect the other, resulting in mixed symptoms. The left ventricle, the bottom chamber of the left heart, is impacted by left-sided heart failure. A fluid buildup in the lungs could cause shortness of breath (Capriotti, 2020). The patient was admitted for shortness of breath (SOB) and edema related to his chronic heart failure. The patient has left-sided heart failure.

S/S of disease: A few of the symptoms of left ventricular failure include pulmonary edema, dyspnea, coughing, orthopnea, paroxysmal nocturnal dyspnea (PND), weak peripheral pulses, reduced cerebral activity, irregular heartbeat, confusion, and disorientation. Heart failure ranging from mild to severe often manifests as decreased pulses and possible nailbed and lip cyanosis. When many liters of fluid buildup in the body's interstitial spaces, edema may also manifest and weight gain may result (Capriotti, 2020). Sign and symptoms the patient experience on admission was edema in the abdomen, irregular heartbeat, and dyspnea.

Method of Diagnosis: A chest X-ray can diagnose heart failure. The left ventricle frequently has more enlargement than the right. A heart failure electrocardiogram (ECG) might show several abnormalities. The waveforms obtained from the chest leads show left ventricular hypertrophy (LVH) or enlargement. One kind of noninvasive sonography that can show the anatomy and function of the heart is an echocardiogram. It is used to assess the ventricle's size and functionality as well as the anatomy and operation of the valve. A specific cardiac catheter is used during cardiac catheterization to examine the coronary arteries or carry out hemodynamic monitoring inside the heart. Serum electrolytes and brain natriuretic peptide levels are two lab tests that can reveal heart failure (Capriotti, 2020). The patient had a chest x-ray, ECG, Echo, and Cath lab to determine his chronic heart failure.

Treatment of disease: Heart failure can be treated with a variety of methods and strategies. One is altering one's lifestyle, which can include giving up smoking, switching to a low-fat diet, and getting more exercise. Patients with heart failure should consume less alcohol, salt, fluids, and cholesterol. Another type of therapy is pharmacological therapy. Diuretics reduce blood volume and salt retention, increasing the body's water excretion. Spironolactone is an aldosterone antagonist that prevents the nephron from reabsorbing water and salt. Cardio-transplantation is a temporary treatment for end-stage heart failure, but devices like the left ventricular assist device (LVAD), which has a pump to improve the left ventricle's blood ejection, can also be used for this purpose (Capriotti, 2020). The patient has an automated

Active Orders

Cardiac monitoring: identify a decreased cardiac output.

Vital sign Q4H: maintain a stable condition.

Intake & Output: proper intake of fluid and nutrients.

Inspect skin: assess the skin for discoloration, erythema, or bruising while on warfarin.

IV access: check patency of IV for infusion therapy, swelling, redness, coolness, or warmth to the touch.

Oxygen via nasal cannula: maintain a stable saturation level.

Activity: increase activity as tolerated.

Monitor lab: monitor patient INR and Prothrombin time while on warfarin.

Physical Exam/Assessment

General: The patient was alert and oriented to person, place, and time. Well-groomed.

Integument: The patient skin was purple, flaky, and bruised (ecchymosis). The skin was warm and dry upon palpation – no rashes or lesions. Capillary refill less than 2 seconds.

HEENT: Head and neck are symmetrical; trachea is midline without deviation. The sclera is white, and the lids are moist and pink without lesions or discharge. PERRLAL bilaterally. EOMs intact bilaterally.

Cardiovascular: Irregular rate with a controlled A-fib. Clear S1 and S2 without murmurs or rubs. Gallop heard.

Respiratory: Oxygen via nasal canular 2L. No wheezes, crackles, or rhonchi noted. Normal rate and pattern of respirations, non-labored.

Genitourinary: The patient has an enlarged scrotum 4+.

Gastrointestinal: The abdomen is hard and distended upon palpation of all four quadrants. Bowel sounds in all four quadrants.

Musculoskeletal: Generalized weakness. Pedal push and pulls demonstrate normal with equal strength. Hand grips were normal and equal strength. Patient has full range of motion (ROM) in extremities.

Neurological: Patient is alert and oriented to person, place, time, and situation. PERRLAL bilaterally.

Most recent VS (include date/time and highlight if abnormal): 3/18/2024 at 1500. Temperature: 36.4 C (97.6 F) oral, Pulse: 74, Respirations: 18, BP: 131/61, and O2: 90 nasal canula.

Pain and pain scale used: The patient report his pain a 2 on a numerical scale of 1-10.

Nursing Diagnosis 1	Nursing Diagnosis 2	Nursing Diagnosis 3
Risk for decreased cardiac output related to altered heart rhythm as evidenced by atrial fibrillation (Doenges, 2022).	Excess fluid volume related to cardiac dysfunction as evidenced by edema (Doenges, 2022).	Activity Intolerance related to generalized weakness as evidenced by verbal reports of fatigue and weakness (Doenges, 2022).
Rationale This nursing diagnosis was given because the patient has atrial fibrillation (A-fib) that causes irregular heart rhythm.	**Rationale** The nursing diagnosis was given because the patient had edema in the abdomen.	**Rationale** The nursing diagnosis was given because the patient stated he was experiencing weakness and fatigue while doing daily tasks.
Interventions **Intervention 1:** Observe skin, noting color, moisture, temperature, and capillary refill time (Doenges, 2022). **Intervention 2:** Promote for adequate rest (Doenges, 2022).	**Interventions** **Intervention 1:** Measure abdominal girth to evaluate changes that may indicate increasing fluid retention (Doenges, 2022). **Intervention 2:** Monitor fluid intake from all sources (Doenges, 2022).	**Interventions** **Intervention 1:** Assist with activities and provide/monitor patient use of assistive devices to protect the patient from injury (Doenges, 2022). **Intervention 2:** Assess cardiopulmonary response to physical activity, including vital signs before, during, and after activity (Doenges, 2022).
Evaluation of Interventions The patient will have a normal sinus rhythm on an EKG.	**Evaluation of Interventions** The patient will stabilize fluid volume by monitoring intake and output (I&O) and daily weight.	**Evaluation of Interventions** The patient will demonstrate daily activities within his limitations.

References (3) (APA):

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

F. A. Davis Company.

Davis's Drug Guide. (2024). *Davis's Drug Guide Online /* DrugGuide.com.

https://www.drugguide.com/ddo/

Doenges, M. E., Moorhouse, M. F., & Murr, A. C. (2022). *Nursing diagnosis manual: Planning, individualizing, and documenting client care* (7th ed.).

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