

**Medications**

- Amlodipine (Norvasc) - Taking this med to help w/ high blood pressure
  - o Pharmacologic Class: Calcium Channel Blocker (NDH, 2023).
  - o Therapeutic Class: Antihypertensive (NDH, 2023).
  - o Key Nursing Assessments: Assess heart rate, EKGs, and heart tones
- Aspirin - taking this medication to help thin blood and prevent clot formation
  - o Pharmacologic Class: Salicylate (NDH, 2023).
  - o Therapeutic Class: NSAID (NDH, 2023).
  - o Key Nursing Assessments: Monitor for GI distress/bleeding and bronchospasm (NDH, 2023).
- Carvedilol (Coreg) - taking this med to help improve ventricular heart function
  - o Pharmacologic Class: Nonselective beta blocker (NDH, 2023).
  - o Therapeutic Class: antihypertensive, heart failure adjunct med (NDH, 2023).
  - o Key Nursing Assessments: Monitor blood glucose level (NDH, 2023).
- Furosemide (Lasix) - taking this med to reduce/relieve fluid retention in the body
  - o Pharmacologic Class: Loop diuretic (NDH, 2023).
  - o Therapeutic Class: Antihypertensive (NDH, 2023).
  - o Key Nursing Assessments: Monitor blood pressure, hepatic, and renal function (NDH, 2023).
- Heparin - taking this medication to reduce/prevent blood clots from forming
  - o Pharmacologic Class: Anticoagulant (NDH, 2023).
  - o Therapeutic Class: Anticoagulant (NDH, 2023).
  - o Key Nursing Assessments: Monitor patient's H&H along with platelet counts and dot formation timing; monitor for bleeding (NDH, 2023).
- Hydralazine - taking this medication to increase stroke volume and cardiac output
  - o Pharmacologic Class: Vasodilator (NDH, 2023).
  - o Therapeutic Class: Hypertensive (NDH, 2023).
  - o Key Nursing Assessments: Monitor blood pressure and pulse regularly (NDH, 2023).
- Hydrocodone (Norco) - Patient is taking this medication for pain that has to do with his foot wound
  - o Pharmacologic Class: Opioid (NDH, 2023).
  - o Therapeutic Class: Opioid Analgesic (NDH, 2023).
  - o Key Nursing Assessments: Monitor for signs of respiratory depression (NDH, 2023).
- Losartan (Cozaar) - taking this medication for the prevention of heart attacks/strokes
  - o Pharmacologic Class: Angiotensin 2 receptor blocker (NDH, 2023).
  - o Therapeutic Class: Antihypertensive (NDH, 2023).
  - o Key Nursing Assessments: Monitor blood pressure and renal function/ Monitor for muscle pain (NDH, 2023).
- Pravastatin (Pravachol) - taking this med to help reduce the risk of cardiac events
  - o Pharmacologic Class: HMG-CoA reductase inhibitor (NDH, 2023).
  - o Therapeutic Class: Antilipemic (NDH, 2023).
  - o Key Nursing Assessments: Monitor blood pressure to evaluate drug effectiveness
- Spironolactone (Aldactone) - taking this medication to reduce/relieve fluid retention in the body
  - o Pharmacologic Class: Potassium Sparing Diuretic (NDH, 2023).
  - o Therapeutic Class: Diuretic (NDH, 2023).
  - o Key Nursing Assessments: Monitor for symptoms of hyponatremia (NDH, 2023).

**Lab Values/Diagnostics**

**Diagnostics:**

- Chest & Foot Xray - the chest x-ray was to check for pneumonia while the foot x-ray was to check why there was swelling in the foot
- Lower Extremity Arterial Duplex - this was done to check blood flow in the swollen extremities
- Thoracentesis (15") - this was done to relieve some of the fluid that was accumulating in his body
- ECG - the patient had an ECG to check his heart function, which revealed that he was in atrial fibrillation
- Echocardiogram - the echocardiogram was done to check heart function, which is important because he has just been diagnosed with congestive heart failure
- Paracentesis (15") - this was done to relieve some of the fluid that was accumulating in his body
- Abdominal Sonograph - this is done to understand why the abdomen might be distended, which for my patient, was because of the fluid accumulation due to heart failure
- Chest CT - this is done to find any injury or inflammation to internal organs which was indicated because this patient has acute CHF.

**Lab Values (Abnormal)**

- Glucose: 3.86 (4.10-5.70) - the patient's decreased glucose could be due to the fact that he's was NPO as he was set to receive a cardiac catheterization but it was moved so he was able to eat again
- Calcium: 8.3 (8.9-10.6) - the patient's decreased calcium could be due to the fact that he's was NPO as he was set to receive a cardiac catheterization but it was moved so he was able to eat again
- Sodium: 130 (136-145) - decreased Na is related to congestive heart failure, which the patient has a new diagnosis of
- Chloride: 91 (98-107) - decreased Cl is related to congestive heart failure, which the patient has a new diagnosis of
- CO2: 30.0 (22.0-29.0) - Patient has a history of smoking which could be the cause of the low CO2
- RBC: 3.86 (4.10-5.70) - the
- HGB: 11.3 (12.0-18.0) - decreased HCT could be because of a nutritional deficiency and the patient was NPO because he was going to have a cardiac catheterization
- HCT: 35.2 (37.0-51.0) - decreased HCT could be indicative of malnutrition and the patient was NPO because he was going to have a cardiac catheterization
- RDW: 17.1 (12.0-15.0)
- RDW-SD: 56.7 (36.7-46.1)
- Platelet: 130 (140-400) - the patient is on heparin, which could be the cause of the slight drop in platelet count
- Monocytes: 1.14 (0-1.10) - increased monocytes could be due to inflammation or stress; the patient has a lot of edema in his leg and the new diagnosis of CHF could be very stressful
- Lymphocytes: 0.84 (1-4.90) -

**Demographic Data**

**Date of Admission: 3/14/2024**  
**Admission Diagnosis/Chief Complaint: Heart Failure w/ reduced ejection fraction/Leg Swelling**  
**Age: 70**  
**Gender: Male**  
**Race/Ethnicity: Caucasian**  
**Allergies: No known allergies**  
**Code Status: Full**  
**Height in cm: 165.1 cm**  
**Weight in kg: 103.9 kg**  
**Psychosocial Developmental Stage: Integrity vs. Despair**  
**Cognitive Developmental Stage: Formal Operational Stage**  
**Braden Score: 15**  
**Morse (John Hopkins) Fall Score: 23**  
**Infection Control Precautions: N/A**

**Admission History**

Patient came to the hospital on 2/21 complaining of pain in his legs after a having a fall. This pain has lasted since that date (2/21/24). Since then, the patient has developed edema and swelling in his lower extremities that is exacerbated with activity. Some relieving factors for him include rest and medication. The patient was able to treat himself with rest at home. The severity of this disease process would be rated at an 8 for the patient currently.

**Medical History**

**Previous Medical History: Coronary Artery Disease, Cataracts, Diabetes, Diabetic Retinopathy, Hyperlipidemia, Hypertension, Macular Pucker, Stroke**  
**Prior Hospitalizations: N/A-None others in the chart (Professor notified)**  
**Previous Surgical History: Cataract Removal, PRP Laser**  
**Social History: Smoke: 1 Cigar per week; Drink: Rarely (Not Currently); Drugs: Denies use**

**Pathophysiology**

**Disease process: Heart Failure** is a condition where the heart is unable to adequately pump blood to the rest of the body. Heart failure is determined by several factors which can include the extent of systolic/diastolic dysfunction, involvement of the ventricles, and different comorbidities (Njoroge & Teerlink, 2021). In heart failure, the ventricles of the heart are unable to fill correctly, which leads to increased venous pressure and congestion (Njoroge & Teerlink, 2021). This leads to decreased cardiac output and decreased organ perfusion leading to organ dysfunction and destruction (Njoroge & Teerlink, 2021).  
**S/S of disease: Signs and Symptoms** include fatigue, shortness of breath, wheezing, rapid/irregular heartbeat, and swelling in the legs and feet. The patient had edema in his lower extremities along with some shortness of breath.  
**Method of Diagnosis:** There are many ways to diagnose heart failure. Usually, and echocardiogram is done to diagnose it, but ejection fraction can also be measured along with chest CTs and x-rays. The patient had an echocardiogram performed in which it was found that he was in acute CHF with an ejection fraction of less than 40%  
**Treatment of disease:** There are a few treatments for heart disease. They can either be medicinal or therapeutic. Medicines given for heart failure are usually ACE-inhibitors, diuretics, and beta blockers. The patient is currently taking all of these medication classes

**Active Orders**

- Cardiac Diabetic Diet - This diet helps reduce the risk of cardiovascular disease by eliminating foods that are high in sodium and providing options that help control cholesterol levels
- Cardiac Monitoring (72 hours) - This is to make sure that the patient is stable and monitor for arrhythmias that may harm the patient.
- Full Code - This is so the medical professionals know that if the patient were to become pulseless, they should execute life saving measure to try and resuscitate the patient, per the patient's wishes.
- Labs: CBC, CMP, Magnesium, Glucose - these labs are drawn to monitor the patient's health and see if he is getting better and tolerating the treatments
- Increase Activity as tolerated - this helps reduce the patient's risk of developing clots. The patient is currently not moving much and that is an increased risk of clot formation, so any activity would help reduce clot formation risk
- Wound Care daily - the patient has a wound on his left heel. Wound care is done to make sure the wound heals properly and doesn't become infected
- Fluid Restriction (1500 ml) - this is to reduce the amount of fluid in the patient's body. The patient is already in fluid overload and more fluid would increase the work the heart has to do to pump blood throughout the body.

**Physical Exam/Assessment**

**General:** Patient is alert and oriented to person, place, and time. Patient is well groomed and seem to be in acute distress

**Integument:** Patient's skin was warm and dry upon palpation. **Patient had a rash on his stomach area.** Patient's hair was normally distributed and had normal quantity to for his age range. Nails were without clubbing or cyanosis and skin turgor was normal. **Edema of 3+ was noted.**

**HEENT:** Patient's head and neck and symmetrical. His trachea is midline with no deviation and his thyroid is nonpalpable. Carotid pulses are 2+ bilaterally. His sclera is white and conjunctiva are pink bilaterally. PERRLA and EOMs are intact bilaterally. There are no visible lumps or lesion is his ears and no bleeding is noted. His septum is midline and turbinates are moist and pink with no bleeding noted. Tonsils are normal in size, uvula is midline and dentition is good. **Patient does have 2 caps on his teeth.**

**Cardiovascular:** Clear S1 and S2 with no murmurs, gallops, or rubs. Patient has normal rate and rhythm.

**Respiratory:** Normal rate and rhythm of respirations. Respirations are symmetrical and non-labored. **Expiratory rubs were noted upon auscultation.**

**Genitourinary:** Patient's urine is clear and yellow. There is no pain with urination but **patient does have a foley catheter in place.**

**Gastrointestinal:** Patient's abdominal sounds are active. **The patient's abdomen was a little distended. Some organomegaly was noted upon palpation.**

**Musculoskeletal:** Upper extremities have full range of motion. Lower extremity range of motion was a little diminished. Capillary refill was less than 3 seconds in all 4 extremities. **Bilateral edema noted in lower extremities. Right side weaker than left side on upper and lower extremities due to prior stroke according to the patient.**

**Neurological:** Deep tendon reflexes are intact in all locations and patient demonstrated strength in pedal pushes and pulls along with hand grips. Negative Homan's sign noted.

**Most recent VS (include date/time and highlight if abnormal):** 3/18/2024 @ 3:20 p.m.: O2 - 96; HR - 63; T - 99; BP - 148/83 (105); RR - 20

**Pain and pain scale used:** Patient rates pain as a 0 (0-10)

<p align="center"><b>Nursing Diagnosis 1</b></p> <p><b>Excess fluid volume related to compromised heart function as evidenced by weight gain (Vera, 2024).</b></p>	<p align="center"><b>Nursing Diagnosis 2</b></p> <p><b>Imbalanced nutrition related to dietary restrictions and fluid management as evidenced by 1250 mL fluid restriction and Cardiac Diabetic diet (Judith et al, 2023).</b></p>	<p align="center"><b>Nursing Diagnosis 3</b></p> <p><b>Impaired skin integrity related to moisture and wounds as evidenced by observed areas of breakdown and changes to skin (Wagner &amp; Lukey, 2024).</b></p>
<p align="center"><b>Rationale</b></p> <p><b>Patient came in with a lot of fluid. By the time he was received as my patient, he had lost at least 50 pounds of fluid over the course of 4 days</b></p>	<p align="center"><b>Rationale</b></p> <p><b>The patient was on a fluid restriction and cardiac diabetic diet to make sure that he didn't gain too much fluid which could harm his heart</b></p>	<p align="center"><b>Rationale</b></p> <p><b>The patient had a wound of the bottom of his left foot; He also had some moisture build up under his stomach flap which was causing redness and rash</b></p>
<p align="center"><b>Interventions</b></p> <p><b>Intervention 1: Patient is scheduled for a thoracentesis and paracentesis</b>  <b>Intervention 2: Patient is on a fluid restriction of 1500 ml and a diabetic cardiac diet</b></p>	<p align="center"><b>Interventions</b></p> <p><b>Intervention 1: Keep oral swabs to help the patient keep his mouth hydrated.</b>  <b>Intervention 2: Monitor for electrolyte imbalances and adjust diet based on them</b></p>	<p align="center"><b>Interventions</b></p> <p><b>Intervention 1: Administering powder to his stomach area to relieve the moisture and rash.</b>  <b>Intervention 2: Daily wound care to ensure that his wound is healing</b></p>
<p align="center"><b>Evaluation of Interventions</b></p> <p><b>Patient was able to tolerate the first thoracentesis/paracentesis he had done; He is also tolerating the diet/fluid restriction well. I believe that it helps that he was NPO before the alterations to his diet and fluid intake, so he is grateful to be able to eat and drink at all.</b></p>	<p align="center"><b>Evaluation of Interventions</b></p> <p><b>I talked to the patient about keeping oral swabs around to help with his mouth being dry because he complained about that to me earlier. He felt that it was a good idea and thanked me offering that to him. In terms of his electrolytes, the nurse will speak to the doctor if any adjustments need to be made.</b></p>	<p align="center"><b>Evaluation of Interventions</b></p> <p><b>Patient was grateful for the interventions that were being done to ensure that he was healthy and comfortable. He was particularly grateful about the powder because he was starting to feel uncomfortable and because he is limited in mobility, was unable to take care of himself in that area.</b></p>

**References (3) (APA):**

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Vera, M. (2024, March 16). *18 nursing diagnosis for heart failure nursing care plans*. Nurseslabs. <https://nurseslabs.com/heart-failure-nursing-care-plans/>

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