Adult Health II Care Plan #1

Lakeview College of Nursing

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Date: 01-02-2023

Demographics (5 points)

Date of Admission 10-27-2023	**Client Initials** T.D.	**Age** 73 Years	**Gender** Male
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Married	**Allergies** ***Adhesive*** - Itching ***Asmanex (Mometasome)*** - causes asthma to increase and result in shortness of breath ***Latex*** - Rash (none-hive like)
Code Status Full Code	**Height** 188 cm (5'10'')	**Weight** 350.8 lbs(158kg)	

Medical History (5 Points)

Past Medical History:

Asthma (Date unknown - not listed in chart), Coronary Artery Disease (Date unknown - not listed in chart), Type II Diabetes Mellitus (Date unknown - not listed in chart), Hypertension (Date unknown - not listed in chart), GERD (Date unknown - not listed in chart), Hyperlipidemia (Date unknown - not listed in chart), Moderate Obstructive Sleep Apnea (1/27/2015), Obesity (Date unknown - not listed in chart), and Aortic Valve Replacement (Date unknown - not listed in chart).

Past Surgical History:

PR Removal Gallbladder (Date unknown - not listed in chart), PTCA Stent (Date unknown - not listed in chart), Wisdom Tooth Extraction (Date unknown - not listed in chart), Right/Left Heart Catheter Insertions (08/21/2021), Pacemaker Insertion (07/03/13), PTCA/Stent (09/22/21),

Atherectomy Coronary Native (09/22/21), Left Heart Catheter (08/05/22), PTCA/Stent (08/05/22), and Transvenous Pacemaker Insertion (06/30/23)

Family History:

- Father: Type II Diabetic, H/o MI, Hyperlipidemia
- Mother: Type II Diabetic, H/o MI
- Siblings: no comorbidities listed per carle chart (Verified with Nurse and patient's wife)

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use and type):

- ***Smoking***: Former use - type is chew - for 30 years - twice per day - quit date: 10-01-1996
- ***Alcohol use*:** not currently - about 1 - 2 small glass of Scotch on occasions (about 6-8 times per year)
- ***Drug use:*** None never.

Assistive Devices: Uses Cane to ambulate

Living Situation: Lives at home with wife

Education Level: Highest education level obtained is high school diploma

Admission Assessment

Chief Complaint (2 points): Shortness of breath and Chest Tightness

Principal Problem: Acute Heart Failure with Preserved Ejection Fraction (Acute HF w/ pEF)

History of Present Illness – OLD CARTS (10 points - In Paragraph format):

The Male patient of 73 years old was taken to Carle hospital ED in Urbana for chief complaints of shortness of breath, bilateral leg swelling, and chest tightness that has been going on for several weeks. Patient stated that symptoms have been worsening by each passing week. The patient also stated that it started 2 months ago when he felt severe exertion with dyspnea and was only able to walk a few steps. The chest tightness and leg swelling has been getting worse with no pain (per patient's statement). Patient also stated that they have bee gaining weight unintentionally. Patient is not being admitted and given lasix, heparin, and is planning on getting a right/left heart catheterization procedure (date is unknown) (per MD orders).

Primary Diagnosis

Primary Diagnosis on Admission (3 points):

- Acute Heart Failure with Preserved Ejection Fraction (Acute HF w/ pEF)

Secondary Diagnosis (if applicable):

- Cellulitis (both lower extremities)

Pathophysiology of the Disease, APA format (20 points):

- **Pathophysiology:**

Acute Heart Failure occurs from rapid, sudden development of heart failure that is often caused by substantial ventricular muscle injury as in massive MI. Cardiogenic shock occurs when there is a significant loss of the ventricle's ability to pump blood (which maintains optimal blood pressure) within the body (Capriotti, 2020). Chronic heart failure (more common) is where the heart gradually suffers weakening over a long period of time, with dysfunctioning happening during systole, diastole, or both. In systolic heart failure, the weakened left ventricle has difficulty ejecting blood out of the chamber (Capriotti, 2020). The left ventricle is a poor forward-pump, which, in turn, causes inadequate ventricular emptying. Stroke volume and cardiac output, both functions of forward heart-pumping action, are diminished. In LVEF, the amount of blood pumped out of the left ventricle is less than 50% of the total left ventricular blood volume (Capriotti, 2020). Systolic heart failure is often referred to as HFrEF which is when blood accumulates in the weakened left ventricle, elevating pressure within the chamber; this causes a backup of hydrostatic pressure into the left atrium above it (Capriotti, 2020). The backward hydrostatic pressure in the left atrium causes further backup of pressure into the pulmonary veins and, ultimately, pulmonary capillaries. This excess hydrostatic pressure in the pulmonary capillaries causes pulmonary edema. Diastolic heart failure, the ventricle has difficulty relaxing, is less elastic, and cannot expand fully (Capriotti, 2020). The stiff ventricle cannot fill with blood adequately and therefore pumps out insufficient blood volume for the needs of the body's tissues.

Signs/symptoms of acute heart failure is pulmonary crackles, pulmonary edema (with pink frothy sputum), coarse crackles, ascites, diminished pulses, third and fourth heart sounds via stethoscope, resting moderate or severe tachycardia, inspiratory crackles in the lung bases bilaterally, bilateral pleural effusion due to high pulmonary venous pressure, edema in the lower extremities, dyspnea on exertion, orthopnea, cardiomegaly, and ascites (due to hepatic venous congestion) (Capriotti, 2020).

Expected findings in those with acute heart failure includes Paroxysmal nocturnal dyspnea, weight loss of 4.5 kg or more over 5 days of treatment for heart failure, jugular vein distension, pulmonary crackles, cardiomegaly, auscultation of S3 heart sound, increased CVP (greater than 16 cm H2O), positive hepatojugular reflux (Arrigo et al., 2020).

To establish a diagnosis of heart failure, at least one of the major criteria and two of the minor criteria should be present from the Framingham Criteria for Diagnosis of Heart Failure. Other labs that support diagnosis of heart failure are brain natriuretic peptide (BNP secretes from myocardium) and electrolyte fluctuations (effects for hypokalemia) (Capriotti, 2020). Diagnostics test includes chest x-ray (can show pulmonary fields or cardiomegaly), electrocardiogram (identify changes in ST segments/ T waves/QRS complexes), echocardiogram presents activity/structures of the heart, and an cardiac angiography/catheterization monitors the coronary arteries and assess circulation (Arrigo et al., 2020).

Heart Failure treatment usually begins lifestyle modifications such as low-fat diet, smoking cessation, and increasing physical activity, pharmacological agents (beta blockers and

ACE inhibitors), and intracardiac interventions (such as pacemakers). Other recommendations include a low-salt diet that consist of 1.5grams of sodium per day, weight loss, and smoking cessation (Capriotti, 2020). Pharmacological therapies include diuretics, ACE inhibitors, angiotensin II receptor blockers (ARBs), aldosterone antagonist, beta-1-adrenergic blockers, inotropes, synthetic natriuretics peptides, ivabradine, neprilysin/ARB inhibitors, nitrates, and arterial vasodilators. Devices for treatments include cardiac resynchronization therapy (CRT) (a pacemaker that optimizes pumping function in both ventricles), intra-aortic balloon pump (uses a catheter to clear obstructed coronary arteries), and left ventricular assist device (LVAD) (a device used to enhance the left ventricle ejection of blood) (Arrigo et al., 2020).

Relevance:

This is relevant to my patient due to having Acute Heart Failure with Preserved Ejection Fraction (Acute HF w/ pEF) and with supporting clinical data of relevance such as chest tightness, shortness of breath, dyspnea on exertion post ambulation, edema present in bilateral lower legs, unintentional weight gain, h/o coronary artery disease, diabetes mellitus type II, hypertension, obesity, aortic valve replacement, left/right heart catheter, PTCA stent procedure, transvenous pacemaker, pacemaker insert procedure, and atherectomy coronary - native procedure. Other supporting clinical findings include having a chest x-ray done for assessing extent of pulmonary congestion, EKG done to assess function of pacemaker, given furosemide for heart failure/HTN symptoms, and use of heparin to prevent clot formations.

Pathophysiology References (2) (APA):

- **Reference:**

Arrigo, M., Jessup, M., Mullens, W., Reza, N., Shah, A. M., Sliwa, K., & Mebazaa, A. (2020). Acute heart failure. *Nature Reviews Disease Primers*, *6*(1). https://doi.org/10.1038/s41572-020-0151-7

Capriotti, T. (2020). *Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives*. F. A. Davis Company.

Laboratory Data (20 points)

If laboratory data is unavailable, values will be assigned by the clinical instructor

CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	3.8 - 5.2 x 10^6 cells/mcL	4.36	3.70	Heart Failure causes a reducting in carrying capacity in rbc's function of circulation and may be due to a result of anemia (Pagana et al., 2018)
Hgb	12.0 - 16.0 g/dL	11.8	10	Common for those having heart failure to have anemia (Pagana et al., 2018)
Hct	34.0 - 47.0%	40.7%	33.8%	Common for those having heart failure to have anemia (Pagana et al., 2018)
Platelets	140 - 400 10^6 cells/mcL	230	203	-
WBC	4.00 - 11.00 10^6 cells/mcL	5.97	9.44	-
Neutrophils	47.0 - 73.0%	4.24%	Lab Not Tested	-
Lymphocytes	12.0 - 42.0%	15.1%	Lab Not Tested	-
Monocytes	4.0 - 13.0%	6.9%	Lab Not Tested	-
Eosinophils	0.0 - 5.0%	4.7%	Lab Not Tested	-
Bands	50 - 65%	Lab Not Tested	Lab Not Tested	-

Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136 - 145 mmol/L	146	139	due to increase intake of sodium via diet (Pagana et al., 2018)
K+	3.5 - 5.1 mmol/L	3.7	3.6	-
Cl-	98 - 107 mmol/L	107	100	-
CO2	22 - 29 mmol/L	29.0	29.0	-
Glucose	74 - 100 mg/dL	116	139	High due to diagnosis of diabetes (Pagana et al., 2018).
BUN	8 - 26 mg/dL	23	33	indicative high levels means Heart failure (Pagana et al., 2018).
Creatinine	0.7 - 1.30 mg/dL	1.27	1.75	indicative high levels means Heart failure (Pagana et al., 2018).
Albumin	3.4 - 4.8 g/dL	3.5	2.8	low levels is due to hemodilution from heart failure (Pagana et al., 2018).
Calcium	8.9 - 10.3 mg/dL	9.6	8.9	-
Mag	1.6 - 2.6 mg/dL	1.8	1.8	-
Phosphate	2.3 - 4.7 mg/dL	Lab Not Tested	Lab Not Tested	
Bilirubin	0.2 - 0.8 mg/dL	1.3	1.9	high levels indicate that there is an increase in central venous pressure in the hepatic vein causing liver dysfunction in acute heart failure (Pagana et al., 2018)

Alk Phos	40 - 150 U/L	97	78	-
AST	5 - 34 U/L	18	14	-
ALT	0 - 55 U/L	14	10	-
Amylase	40 - 140 U/L	Lab Not Tested	Lab Not Tested	-
Lipase	8 - 78 U/L	Lab Not Tested	Lab Not Tested	-
Lactic Acid	0.5 - 2.0 mmol/L	Lab Not Tested	1.33	-
Troponin	0 - 4 ng/L	12	Lab Not Tested	High troponin levels mean more heart damage (Pagana et al., 2018).
CK-MB	Not tested	Lab Not Tested	Lab Not Tested	-
Total CK	Not Tested	Lab Not Tested	Lab Not Tested	-

Other Tests Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	0.9-1.1 sec	2.3	1.9	Due to heparin given (Pagana et al., 2018).
PT	11.7-13.8 sec	25.7	21.5	Due to heparin given (Pagana et al., 2018).
PTT	22.4 - 35.9 sec	37.1	Lab Not Tested	Due to heparin given (Pagana et al., 2018).
D-Dimer	Lab Not Tested	Lab Not Tested	Lab Not Tested	-
BNP	0 - 100 pg/mL	137	Lab Not Tested	-
HDL	Lab Not Tested	Lab Not Tested	Lab Not Tested	-

LDL	Lab Not Tested	Lab Not Tested	Lab Not Tested	-
Cholesterol	Lab Not Tested	Lab Not Tested	Lab Not Tested	-
Triglycerides	Lab Not Tested	Lab Not Tested	Lab Not Tested	-
Hgb A1c	4 - 7%	7.2	Lab Not Tested	High due to diagnosis of diabetes (Pagana et al., 2018).
TSH	Lab Not Tested	Lab Not Tested	Lab Not Tested	-

Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Bright Yellow/Clear	Lab Not Tested	Lab Not Tested	-
pH	5.0 - 9.0	Lab Not Tested	Lab Not Tested	-
Specific Gravity	1.003 - 1.030	Lab Not Tested	Lab Not Tested	-
Glucose	Negative	Lab Not Tested	Lab Not Tested	-
Protein	Negative	Lab Not Tested	Lab Not Tested	-
Ketones	Negative	Lab Not Tested	Lab Not Tested	-
WBC	Negative 0-25/hpf	Lab Not Tested	Lab Not Tested	-
RBC	0 - 20 Ery/uL	Lab Not Tested	Lab Not Tested	-
Leukoesterase	Negative	Lab Not	Lab Not	-

		Tested	Tested	

Arterial Blood Gasses Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	No Labs Available	Lab Not Tested	Lab Not Tested	-
PaO_2	No Labs Available	Lab Not Tested	Lab Not Tested	-
$PaCO_2$	No Labs Available	Lab Not Tested	Lab Not Tested	-
HCO_3	No Labs Available	Lab Not Tested	Lab Not Tested	-
SaO_2	No Labs Available	Lab Not Tested	Lab Not Tested	-

Cultures Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative	Lab Not Tested	Lab Not Tested	-
Blood Culture	Negative	Lab Not Tested	Lab Not Tested	-
Sputum Culture	Negative	Lab Not Tested	Lab Not Tested	-
Stool Culture	Negative	Lab Not Tested	Lab Not Tested	-

Lab Correlations Reference (1) (APA):

Pagana, K.D., Pagana, T.J., & Pagana, T.N. (2018). *Mosby's diagnostic and laboratory test reference* (14th ed.). Mosby.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

- **XR Chest AP OR PA Only (10/27/2023):**
  - **Purpose**: Purpose is to view the thoracic view of the heart, lungs, bones, and visceral spaces for any abnormalities (Pagana et al., 2018).
  - **Indication per Physician Order**: Chest tightness, volume overload/pulmonary edema
  - **Results**: Dual-load left-sided cardiac pacer noted and presence of cardiomegaly, pulmonary venous congestion, and small bilateral pleural effusions.
- **Electrocardiogram (ECG) (01/28/2023):**
  - **Purpose**: Purpose is to view the heart beats and how regular it beats, it helps diagnose abnormal heart rhythms and coronary heart disease (Pagana et al., 2018).
  - **Indication per Physician Order:** To view proper function of pacemaker.
  - **Results**: Ventricular paced rhythm with rate set at 66 beats per minute. No ST segments elevation or depression present. No significant T-wave inversion or abnormal arrhythmias present.

Diagnostic Imaging Reference (1) (APA):

Pagana, K.D., Pagana, T.J., & Pagana, T.N. (2018). *Mosby's diagnostic and laboratory test reference* (14th ed.). Mosby.

Current Medications (10 points, 2 points per completed med)
5 different medications must be completed

Home Medications (5 required)

Brand/ Generic	**Albuterol Sulfate (Salbutamol Sulphate)**	**Fluticasone Furoate Vilanterol (Breo Ellipta)**	**Pantoprazole Sodium (Protonix)**	**Valsartan (Diovan)**	**Prasugrel (Effient)**
Dose	90 mcg (2 puffs)	100 mcg (1 puff)	40mg tab	160mg tab	5mg tab
Frequency	q4hr/PRN	Daily	1 tab Daily	1 tab Daily	1 tab Daily
Route	Oral - Inhaler	Oral - Inhaler	Oral	Oral	Oral
Classification	**Pharmacologic Class**: Adrenergic **Therapeutic Class**: Bronchodilator	**Pharmacologic Class**: Corticosteroid **Therapeutic Class**: Antiasthmatic/Anti-Inflammatory	**Pharmacologic Class**: Proton Pump Inhibitor **Therapeutic Class**: Antiulcer	**Pharmacologic Class**: Angiotensen II Receptor Blocker (ARB) **Therapeutic Class**: Antihypertensive	**Pharmacologic Class**: $P2Y_{12}$ Platelet Inhibitor (Thienopyridine) **Therapeutic Class**: Antiplatelet
Mechanism of Action	it attaches to $beta_2$ receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to convert adenosine triphosphate (ATP) to cyclic adenosine	It inhibits inflammatory cells, such as mast cells, neutrophils, lymphocytes, and macrophages. It also helps to inhibit the secretion of histamines, cytokines, and leukotrienes that are	It suppresses the final step in gastric acid production by forming a covalent bond to two sites of the (H+,K+)-ATPase enzyme system at the secretory surface of the gastric parietal cell (Jones & Bartlett,	It blocks the vasoconstrictor and aldosterone-secreting effects of angiotensin II by selectively blocking the binding of angiotensin II to the AT1 receptor in many tissues, such as vascular smooth	it forms a active metabolite, that irreversibly bind to ADP receptors on platelets to inhibit platelet activation and aggregation for the lifetime of the platelet, which is 7 -

	monophosphate (cAMP). The reaction decreases intracellular calcium levels but increases intracellular levels of cAMP which causes relaxation of bronchial smooth-muscle cells and inhibit histamine release (Jones & Bartlett, 2021).	commonly released with asthma and allergic responses (Jones & Bartlett, 2021).	2021).	muscle and the adrenal gland (Jones & Bartlett, 2021).	10 days. This a thrombus cannot form (Jones & Bartlett, 2021).
Reason Client Taking	Shortness of Breath / Asthma	Asthma	GERD	Hypertension/ Heart Failure	Acute Coronary Syndrome/Angina
Contraindications (2)	● Hypersensitivity to albuterol components. ● None listed	● Untreated Nasal Mucosal Infection ● Hypersensitivity to milk proteins.	● Concurrent therapy with rilpivirine-containing products ● Hypersensitivity to protonix components.	● concurrent therapy of aliskiren ● Hypersensitivity to medication components.	● Active bleeding ● H/o Transient ischemic attack
Side Effects/ Adverse Reactions (2)	● Angina ● Hypotension	● Oropharyngeal edema ● Asthma	● C-Diff ● Erythema multiforme	● Hypotension ● Throbocytopenia	● Intracranial Hemorrhaging

		Exacerbation			• Thrombocytopenia purpura
Nursing Considerations (2)	• albuterol can worsen cardiac disorders, diabetes mellitus, hypertension, h/o of seizures, and hyperthyroidism. • Drug tolerance can develop with long term-use.	• Monitor patient closely that has allergy to milk proteins • Drug may cause adrenal insufficiency due to change from systemic corticosteroid to fluticasone	• Give medication 30 mins before meal to achieve full therapeutic effect. • Monitor patient for c.diff or any diarrhea.	• should not be given to patients also taking a diuretic due to hypovolemic effect. • Monitor Patient Blood Pressure often.	• Druge is not recommended for those who are 75 years or older. • Monitor Patient Closely for Bleeding because prasugrel can cause life-threatening hemorrhaging
Key Labs to monitor or assessments	• Monitor for Hypokalemia • None else is listed for labs	• Monitor for WBC increases • Monitor inflammatory markers for viral infections	• Monitor PT or INR • Monitor electrolyte levels for hypocalcemia.	• Monitor potassium level • Monitor Creatinine level	• Monitor hemoglobin and hematocrit • Monitor CBC for thrombocytopenia purpura.
Client Teaching (2)	• Teach patient how to use inhaler	• Teach patient how to use	• Dont not crush or chew tablets.	• Instruct patients to take medicatio	• Advise patients to not break

	• instruct patients to wash mouth pieces one per week to prevent contraction of candidiasis.	inhaler such as 2 inhalation and wait 1 minute between them • Instruct patients to use mouthwash after use of medication to prevent infection of thrush.	• Instruct patients to notify the physician if diarrhea lasts longer than 1 week.	n at the same time everyday. • Advise patients to avoid use of potassium containing salt-substitute.	tablets. • Advice to discontinue use of NSAIDs medication due to risk of bleeding.

Hospital Medications (5 required)

Brand/ Generic	**Atorvastatin (Lipitor)**	**Cephalexin Hydrochloride (Keflex)**	**Furosemide (Laxis)**	**Empagliflozin (Jardiance)**	**Heparin (Innohep)**
Dose	80mg Tabs	500 mg tabs	15 mL/hr	10mg Tab	24mL/hr
Frequency	1 tab x Daily	QID	Continuous	1 tab x Daily	Continuous
Route	Oral	Oral	IV infusion	Oral	IV Infusion
Classification	**Pharmacologic Class**: HMG-CoA Reductase Inhibitor **Therapeutic Class**: Antihyperlipidemic	**Pharmacologic Class**: First-Generation Cephalosporin **Therapeutic Class**: Antibiotics	**Pharmacologic Class**: Loop Diuretics **Therapeutic Class**: Antihypertensive	**Pharmacologic Class**: Sodium Glucose co-transporter 2 inhibitor **Therapeutic Class**: Antidiabetic	**Pharmacologic Class**: glycosaminoglycans **Therapeutic Class**: Anticoagulants

Mechanism of Action	Reduces plasma cholesterol and lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver by increasing the number of LDL receptors on the liver cells to enhance LDL uptake and breakdown (Jones & Bartlett, 2021).	It contains beta lactam and hydrothiazide. Unlike penicillins, cephalosporins are more resistant to the action of beta lactamase. Cephalexin inhibits bacterial cell wall synthesis, leading breakdown and eventual cell death (Jones & Bartlett, 2021).	Medication inhibits Na and water reabsorption in the loop in henle and increases urination formation. As the body's plasma volume decreases, aldosterone production increases, which promotes sodium reabsorption and the loss of potassium and hydrogen ions. By reducing intracellular and extracellular fluid volume, the drug reduces blood pressure and decreases cardiac output (Jones & Bartlett, 2021).	It inhibits sodium glucose co-transporter 2 in the kidneys, which prevents glucose reabsorption, thus decreases blood sugar levels (Jones & Bartlett, 2021).	It binds reversibly to ATIII and leads to almost instantaneous inactivation of factors IIa and Xa The heparin-ATIII complex can also inactivate factors IX, XI, XII and plasmin. The mechanism of action of heparin is AT III-dependent. It acts mainly by accelerating the rate of the neutralization of certain activated coagulation factors by antithrombin, but other mechanisms may also be

					involved. The antithrombotic effect of heparin is well correlated to the inhibition of factor Xa. Heparin is not a thrombolytic or fibrinolytic. It prevents progression of existing clots by inhibiting further clotting (Jones & Bartlett, 2021).
Reason Client Taking	preventing atherosclerosis and cardiac disease.	respiratory infection.	Heart Failure/ Hypertension	Diabetes Mellitus Type II/ Heart Failure	Preving DVT
Contraindications (2)	• Active Hepatic Disease • Unexplained persistent rise in serum transaminase level	• Hypersensitivity to its components • None listed	• Anuria • Hypersensitivity to enoxaparin or heparin, or pork products	• Dialysis Therapy • End-Stage Renal Disease	• Thrombocytopenia • Active bleeding

Side Effects/Adverse Reactions (2)	• Arrhythmias • Hypoglycemia	• Seizure • Stevens-Johnsons syndrome.	• Arrhythmias • Aplastic Anemia	• Ketoacidosis • Hypotension	• Abdominal swelling • Blood in urine
Nursing Considerations (2)	• Used cautiously in patients with diabetes due to drug deterioration. • Drugs can cause acute pneumonia.	• Patients have a 10% allergy to keflex due to relation of penicillin class similarity. • Assess the patient's bowel pattern	• Use extreme precaution in patients with hepatic cirrhosis • Obtain daily weights to assess for fluid loss.	• drugs may cause adverse renal effects. • Drug is not recommended in the second or third trimesters of pregnancy.	• Assess for bleeding risk • Obtain history of recent trauma, head injuries, and/or surgeries.
Key Nursing Assessments/ Labs to Monitor (2)	• Monitor Hepatic Labs • None other labs listed	• Monitor BUN and Creatinine for early signs of nephrotoxicity. • Monitor Liver panel labs for long-term therapy.	• Monitor electrolytes for hypokalemia • Monitor blood pressure and renal functions	• Assess patient fluid status and correct it if needed • Monitor for Creatinine level due to renal dysfunction effects.	• Monitor Coagulation labs for bleeding • monitor CBC
Client Teachings (2)	• Take drug same time each day to maintain drugs	• Advise patient to complete prescribed course of	• instruct patient to take medication at the	• Instruct the patient that medication is not a	• Inform to report any unusual

	effectiveness ● Patient should not take OTC drug Niacin due to increasing risk of rhabdomyolysis	therapy ● Advise patients to report watery/bloody stools immediately.	same time everyday ● Advise to avoid drinking alcohol due to having hypotensive effects.	replacement for diet and exercise. ● Inform patient that medication may cause angioedema	bleeding/bruising immediately ● Teach patients to use soft toothbrush due to bleeding risk.

Medications Reference (1) (APA):

● Jones & Bartlett. (2021). *Nurse's Drug Handbook* (12th ed.). Jones & Bartlett Learning.

Physical Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is alert and oriented X4 to person, place, time, and situation. Patient is alert and responsive to verbal and painful stimuli with no distress appearing at the moment. Overall appearance was appropriate for the setting/situation
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score: 18 - moderate risk** **Drains present: Y☐ N☒** **Type:**	Skin color is olive-pinkish color, dry/warm upon palpation with age spots generalized throughout head and extremity areas. Skin turgor was retractable almost immediately. No signs of contusions or rashes in the trunk areas and upper/lower extremities. Braden Score is 18 (moderate risk - imply pressure ulcer interventions) Patient does have a surgical scar in the left upper part of the chest area (from a pacemaker insertion procedure). Patient does have a weeping wound on the shins area in both lower legs with some cleaning dressing wrapped around it. no drainage present in the wounds. Skin color in the both lower legs is purple with some raised papules develop in the affected surrounding skin.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	*Head/Neck:* Skull and face are symmetrical. Trachea is midline with no deviations. Upon palpation trachea movement is present when the patient swallows. Carotid artery is palpable and is +2 bilaterally. All cervical lymph nodes are nonpalpable bilaterally. Eyelids have no visible discoloration, lesions, or swelling bilaterally. *Eyes*: Sclera is white and clear bilaterally. Conjunctiva is pink and moist bilaterally. Pupils (PERRLA) are round and equal, reactive to light, and are able to accommodate bilaterally. 6 Extraocular movements are present in both eyes with no deviations bilaterally. *Ears*: No present ear tenderness upon palpation with no visible drainage or discoloration bilaterally. No visible

	impaction in ears bilaterally. *Nose*: Nose septum is midline. Turbinates are moist and pink in the nose bilaterally with no visible signs of bleeding. Frontal sinuses are nontender to palpation bilaterally. *Teeth:* Uvula is midline. Soft palate and hard palate are present. Swallow reflex is present with a soft palate able to move upward. Buccal mucosa is moist. Teeth are present and are a yellow/white color and are consistent in the top section and bottom section of the mouth. The tongue color is red/pink with many fissures. A cavity is present in the left lower molar tooth.
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☒ N ☐** **Location of Edema: Both lower legs**	Sinus Rhythm is present along with S1 and S2 sound present. No signs of S3, S4, or murmurs. Heart rhythm is regular (Normal sinus Rhythm). Upper and lower peripheral pulses were +2 bilaterally. Popliteal/pedal pulse is +1 bilaterally. Apical pulse auscultated at the midclavicular line at the 5th intercostal space (rhythm/rate is regular). Cap refill is less than 3 seconds (could not assess lower extremities cap refills due to deterioration from infection). No signs of neck vein distention in the upper/lower extremities. Edema is present in both lower legs bilaterally.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	No use of accessory muscles during respiration. Normal rate and regular pattern of respirations. Respirations are symmetrical and non-labored. Lung sounds clear throughout the anterior/posterior in the upper section bilaterally. No wheezes, crackles, or rhonchi present. No use of accessory muscle or signs of breathing distress. Lung aeration is equal bilaterally.
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height: 188cm (6'2'')** **Weight: 158kg (350.8lbs)**	Diet at home is the DASH diet. Current diet is a cardiac diet. Height is 6 '2'' (188 cm) and Current Weight is 350.9 lbs (158kg). Normoactive bowel sounds in all 4 quadrants. Last BM was this morning at 8am. No

Auscultation Bowel sounds: **Last BM: This morning around 8am** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	pain/tenderness or mass upon palpation in all 4 quadrants. No signs of distention, scars, drains, or wounds upon inspection. No redness, hot to touch, drainage, or swelling present. No ostomy or nasogastric tube present.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** **Size:**	Urine is yellow and clear. Urine output was 275mL (on 1x occurrence - measurable via urine graduated cylinder). Genitals are clean (by patient statement and nursing student inspection). Patient is not on dialysis.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score: 45 (low risk)** **Activity/Mobility Status:** **Independent (up ad lib) ☐**	Neurovascular is intact with no impaired blood flow or damage to the peripheral nerves in the right upper extremities. ROM is apparent in all extremities but needs help with some partial balance with the use of cane. Patient uses a cane to ambulate and glasses to see. Muscle strength is 5/5 in upper extremities/lower extremities. Patients will not need ADL assistance in the future. Fall Risk score is 45 (low risk - recommend the implementation of fall prevention measures). Patients are able to walk by themselves with no assistance but only need an observer (mostly independent).

Needs assistance with equipment ☐ **Needs support to stand and walk** ☐	
NEUROLOGICAL: **MAEW: Y ☒ N ☐** **PERLA: Y ☒ N ☐** **Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	MAEW is intact in all four extremities while PERRLA is equal, round and reactive. Muscle Strength in both upper/lower extremities is equal 5/5 bilaterally. Oriented x4 to person, place, time, and situation. Mental status is normal with behavior appropriate to their responses. Speech and sensory are normal. LOC is 15 with patient alert and awake to question and answer appropriately.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Method of coping is having their wife next to them in the time of need. No deficit noted in development level. Patient stated that they believe in christianity meaning that they believe in the name Jesus christ. Support system is good because they have their kids call and check on them.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P (list position)	Resp Rate	Temp	Oxygen
0815	**60** Automatic Machine	**107/62** -Sitting -Right BrachialArtery	**18** Unlabored	**98.9ºF (37.2ºC)** Temporal	**94%** - Pulse Ox - On 2L of O_2
1100	**62** Automatic Machine	**113/48** - Sitting - Right Brachial Artery	**18** Unlabored	**98.4ºF (37.1ºC)** Temporal	**97%** - Pulse Ox - Room Air

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0815	1-10 Number Scale	–	0 - None	None	None
1100	1-10 Number Scale	-	0 - None	None	None

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	2 Right IV's located in the upper forearm 20G and the other is in the lower forearm 20G. Date: 10/28/2023 The IV is able to flush without difficulties. No signs of erythemas, drainage, and ect. IV Dressing is clean, neat, dry, and intact.

Intake and Output (2 points)

Intake (in mL) (Make a list of what was eaten)	**Output (in mL)**
240 mL of Apple Juice 120 mL of Water	1x occurence - 275mL of urinal graduated cylinder.

Nursing Care

Summary of Care (2 points)

Overview of care: The overall care of the patient is stable. The patient is able to eat, ambulate, and bathe themselves well. Patient is being treated with lasix and heparin as treatment. Patient output is 275mL via urinal graduated cylinder. Patient did not report any pain or signs of discomfort.

Procedures/testing done: Patient had a chest x-ray done to observe the cause of chest tightness, volume overload, and pulmonary edema. An EKG is done to observe for pacemaker functionality and for abnormalities in heart rhythms.

Complaints/Issues: Patient had no complaints

Vital signs (stable/unstable): All vital signs were stable and within normal limits during clinical time.

Tolerating diet, activity, etc.: The patient's diet was regular. Patients will not be able to stand normally due to post-amputation. The patient tolerated an active range of motion exercises very well except for necrotic limbs. The patient is gonna have to use a foley catheter for voiding and use a bedpan for bowel movement.

Physician notifications: Notification to the physicians may be needed for physical status changes such as for neurological, cognitive, and respiratory issues.

Future plans for client: Needs to evaluate on better management of cardiovascular symptoms.

Discharge Planning (2 points)

Discharge location: At Home with wife

Home health needs (if applicable): None

Equipment needs (if applicable): None

Follow up plan: Follow up with the primary provider to discuss recent hospitalization.

Education needs: The patient needs education on how to stay healthy, education of heart failure symptom management, asthma maintenance, wound care management, preventing injury/skin protection, and coping with recent hospitalization.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

(4) Nursing Diagnosis ● Include full nursing diagnosis with "related to" and "as evidence by" components ● Listed in order by priority – Highest priority to lowest priority pertinent to this client	**Rationale** ● Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** ● How did the client/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan. ● Is the Goal met or unmet?
1.) Excess Fluid Volume due to heart failure symptoms as evident by both legs are +2 edema, patient has unintentionally been gaining weight (>15 lbs since the past week), and given lasix for getting fluid out of the patient.	This nursing diagnosis is relevant to the patient due to fluid being mostly in the lower legs bilaterally and been given lasix for getting rid of the fluid.	**1.)** Monitor intake and output for fluid retention (Phelps, 2020). **2.)** Monitor BUN, creatinine, and electrolyte imbalances (Phelps, 2020).	Patients Labs will be within normal limits before discharge and will have baseline weight (not fluctuating)	**Response to actions**: Not Sure, not enough clinical time to assess actions. **Response to goal:** Not sure I did not assess due to time restraints. **Goal unmet:** due to inability to implement and evaluate.
2.) Ineffective	The Nursing	**1.)** Evaluate	The patient will	**Response to**

Tissue Perfusion related to breached skin integrity in the lower legs as evidenced by weeping wound in shin area of both lower legs, dressings are covering weeping wound, lower legs are discolored as purple tint with raised bumps that is generalized.	diagnosis is relevant to my patient due to the skin in the patient's lower legs have weeping wounds and skin is purple.	patients for neurological exams in the extremities for feeling, pain, and ect. (Phelps, 2020). **2.)** Encourage Patient to protect extremity from injury and or extreme hot/cold (Phelps, 2020).	keep skin free from injury, and will report changes that indicate decreased tissue perfusion. czx	**actions**: not sure, not enough clinical time to assess actions. **Response to goal:** Not sure I did not assess due to the time of clinical hours ending. **Goal unmet:** due to inability to implement and evaluate.
3.) Risk of decreased Cardiac output related to h/o heart failure problem as evidenced by medical history of coronary artery disease, surgical history or Stents placements/pacemaker insertion, and having risk factors such as diabetes and fluid overload causing edema in the lower legs.	This nursing diagnosis is relevant to my patient due to having heart failure correlating findings such as hypertension, coronary artery disease, and having a fluid overload.	**1.)** Monitor Heart rhythm and blood pressure (Phelps, 2020). **2.)** Maintain dietary restriction such as cardiac diet (Phelps, 2020).	Patients' heart rate and blood pressure will be maintained during the entire stay of the hospitalization. Patients will also describe symptoms of decreased cardiac output.	**Response to actions:** not sure, nursing student was not able to assess due to clinical time. **Response to goal:** Not sure, the principal nursing student was not able to assess due to clinical time. **Goal unmet:** due to inability to implement and evaluate.
4.) Risk of falls	This is	**1.)** Assess the	The patient will be	**Response to**

related to fall risk as evidenced by using a cane to walk, having 2 IV in the same arm, and needing an observer when ambulating themselves.	relevant to the patient due to my patient being able to ambulate themselves but still need a stand-byer to safety.	patient's ability to use call light to ask for assistance. (Phelps, 2020). **2.)** Identify factors that may cause or contribute to injury that can result in a fall (Phelps, 2020).	able to reach the call light for help and identify safety precautions to take to reduce risk of falls.	**actions:** not sure, nursing student was not able to assess due to clinical time. **Response to goal:** Not sure, the nursing student was not able to assess due to clinical time. **Goal unmet:** due to inability to implement and evaluate.

Other References (APA):

- Phelps, L. (2020). *Sparks & Taylor's nursing diagnosis reference manual* (11th ed.). LWW.

Concept Map (20 Points):

Subjective Data

Nursing Diagnosis/Outcomes

Objective Data

Nursing Interventions

Client Information