

**N321 CARE PLAN #1**

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N321: Adult Health I

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### Demographics

<b>Date of Admission</b> 9/8/24	<b>Client Initials</b> H.H	<b>Age</b> 89	<b>Biological Gender</b> F
<b>Race/Ethnicity</b> Caucasian	<b>Occupation</b> Retired	<b>Marital Status</b> Widowed	<b>Allergies</b> Iodine and Sulfa antibiotics
<b>Code Status</b> Full	<b>Height</b> 4'10	<b>Weight</b> 160 lbs.	

### Medical History

**Past Medical History:** Asthma, chronic obstructive pulmonary disease, diabetes mellitus, diverticulitis, deep vein thrombosis, back pain, hiatal hernia, hyperlipidemia, hypertension, irritable bowel syndrome, renal artery stenosis, seizures, transient ischemic attack

**Past Surgical History:** appendectomy, cardiac catheterization (1/8/21), cesarean section, cholecystectomy, coronary artery bypass graft, tubal ligation

**Family History:** mother and father deceased (hypertension, CHF)

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

No use of alcohol use, no drug use, former smoker of cigarettes (1968-1989, quit in 1889)

**Education:** No shown information in charts, confused when I asked patient

**Living Situation:** Patient lives alone at their own residence

**Assistive devices:** Patient uses walker at home

### Admission History

**Chief Complaint:** shortness of breath

**History of Present Illness (HPI)– OLD CARTS:** Patient came in complaining of shortness of breath that started about 2 days ago. She was having some chest pain that was continuous.

Patient was not able to describe the characteristics as she stated, “I don’t know, it was just pain in my chest.” Nothing necessarily made it better since it was continuous but sitting down and relaxing seemed to ease the pain a little. The patient mentioned doing activities made her even more short of breath. Patient describes no associated factors. Patient did not take anything to treat this pain and scaled the severity a 7 on a number scale of 0-10.

### **Admission Diagnosis**

**Primary Diagnosis:** Congestive heart failure

**Secondary Diagnosis (if applicable):** N/A

### **Pathophysiology**

Heart Failure can be described in several ways; acute, chronic, systolic, or diastolic dysfunction, HFeEF or HFpEF, high-output, or low-output failure, right-sided or left-sided heart failure and forward or backward failure (Capriotti & Frizzell, 2020, p. 411). All these different names are basically a way to distinguish or explain the disorder’s mechanism. As a single muscle organ, the heart is dependent upon the strength, efficiency, and rhythm of every chamber. Changes in pressure and metabolic factors can have an impact on the myocardium and both ventricles. One side of the heart will eventually impact the other when one side begins to weaken or develop defects.

In the initial stages of CHF, many different compensatory mechanisms attempt to maintain cardiac output and meet the systemic demands (Malik et al., 2023, paras. 31-38). Reduced adrenaline reserves and beta-receptor sensitivity are the outcomes of persistent sympathetic nervous system activity. The result is alterations in cardiac hypertrophy, myocardial hypercontractility, and myocyte regeneration. Angiotensin II, which is secreted by the RAAS

system and has been demonstrated to enhance myocardial cellular hypertrophy and interstitial fibrosis, is a factor in myocardial remodeling. The neuroendocrine system is subsequently stimulated by a drop in cardiac output, leading to the production of vasopressin, endothelin 1, norepinephrine, and adrenaline. These cause an increased afterload. Peripheral vasoconstriction and enhanced preload supply to the overworked heart are features of decompensated congestive heart failure. Bradykinin and the natriuretic peptides BNP and ANP: they target several cutting-edge treatments. Severe angioedema results from the coadministration of an ACE inhibitor and elevated angiotensin II levels. The causes of CHF are split equally and when they do, they require different treatment plans.

There are quite a few signs and symptoms that you may see with CHF. You may see bilateral pulmonary crackles in more moderate heart failure instead of early stages (Capriotti & Frizzell, 2020, p. 420-421). Other symptoms include orthopnea, PND episodes, and dyspnea with exertion. Night terrors, nightmares, or a sensation of suffocation that wakes from sleep are common descriptions of PND. Pulses may often be diminished, cyanosis of the lips and nailbeds, distended neck veins when the patient is in Fowler's position can also be observable. More signs that can present are edema symmetrically more in the ankles, tachycardia, and tachypnea. This patient presented with shortness of breath and excess fluid in the body. There was also wheezing incorporated in the shortness of breath along with an irregular heart rhythm.

When it comes to detecting and testing heart failure, there are several laboratory and diagnostic procedures. These include cardiac catheterization and angiography, brain natriuretic peptide, serum electrolytes, ECG, echocardiography, and multiple-gated acquisition scan. The electrocardiogram can demonstrate any abnormalities within the heart. The waveforms that are obtained from the chest leads show LVH or dilation. The ST segment, T wave, or QRS complex

are a few other indicators of potential alterations. Heart failure can be treated with a wide range of intervention techniques. Lifestyle modifications can be one of them such as changing to a low-fat diet, smoking cessation, and increasing physical activity. These are all some basic health promotions strategies. Then there are also things like intracardiac interventions that include a pacemaker which can greatly impact and improve the life of the patient.

### **Pathophysiology References (2) (APA):**

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

Malik, A., Brito, D., Vaqar, S., & Chhabra, L. (2023, November 5). *Congestive Heart Failure*. National Library of Medicine; StatPearls Publishing.

<https://www.ncbi.nlm.nih.gov/books/NBK430873/>

### **Laboratory/Diagnostic Data**

<b>Lab Name</b>	<b>Admission Value</b>	<b>Today's Value</b>	<b>Normal Range</b>	<b>Reasons for Abnormal</b>
CO2 venous	24 mmol/L	21 mmol/L low	22-30 mmol/L	The labs could be abnormal due to the patient's diagnosis of CHF. A decrease in SvCO2 is a sign that the heart is failing (Shanmukhappa and Lokeshwaran, 2022).
Creatine	1.19 mg/dL high	1.25 mg/dL high	0.60-1.00 mg/dL	An abnormal finding for increased levels of creatine can be because of congestive heart failure (Pagana et al., 2021). This patient is diagnosed with

				congestive heart failure which clearly is a reason these levels are abnormal. This could have helped determine the diagnosis.
GFR estimated	44 low	41 low	$\geq 60$	The patient has renal dysfunction which cause the levels of eGFR to be abnormal. eGFR is showing how well your kidneys are working so it makes sense for this patient ti have lower levels due to the past medical history of renal dysfunction (MedlinePlus, 2021).
Glucose	140 mg/dL high	152 mg/dL high	70-99 mg/dL	The glucose level could be high due to the patient’s diagnosis of diabetes mellitus Diabetes mellitus is one of the most common indications when glucose levels are elevated. (Pagana et al., 2021).
Troponin I	44 ng/L high	49 ng/L high	$\leq 14$ ng/L	“Cardiac troponins are important biochemical markers for cardiac disease” (Pagana et al., 2021, p 874). The patient was diagnosed with CHF so this could be one of the reasons that the patient’s troponin levels were elevated.
BNP	1,358 g/mL high	n/a	$< 100$ g/mL	This patient has heart failure which is causing the levels to be abnormal. The heart is working overtime to try to keep up so it can increase the BNP levels (Cleveland Clinic, 2022). BNP levels increase when your heart strains from an increasing

				load or becomes more stressed from an injury.
INR	1.5 high	n/a	0.8-1.1	This patient has a past medical history of DVT which can cause the levels to be abnormal. The INR test is how measuring how fast a blood clot can form (MedlinePlus, 2022). This would make sense for this patient since they already have a condition where their blood clots.
PTT	37 high	n/a	25-36 sec	A blood sample is used in a partial thromboplastin time (PTT) test to determine how long it takes for your blood to clot (MedlinePlus, 2021). This patient has a past medical history of DVT which already means their blood clots.
WBC	11.70mcL	17.90mcL high	4.00- 12.00mcL	The WBC levels can be elevated due to the inflammation going on in the body. The white blood cells can contribute to the development of heart failure because it can be a central process in the development and progression (Kawabe et al., 2021).
Hgb	10.7 g/dL low	10.9 g/dL low	12.0-15.8 g/dL	The Hgb levels can be abnormal since the patient has a diagnosis of CHF. The patient also was experiencing shortness of breath which is a decrease of oxygen. These levels are also showing iron deficiency which can lead to CHF (MedlinePlus, n.d.)
Hematocrit	34.3% low	34.7% low	36.0-47.0%	Renal diseases can cause a

				<p>decrease level of hematocrit (Pagana et al., 2021). The percentage of the total volume of blood is indicated by the Hct. The patient has a past medical history of renal artery disease which can be a factor of why the levels were decreased. According to Cleveland Clinic, renal artery stenosis is the narrowing of the arteries that carry blood to your kidneys (Cleveland Clinic, n.d.). With this patient having a renal disease, this affects the levels.</p>
MCV	78.8fL low	79.5fL low	82.0-96.0fL	<p>Diet can affect the results of this lab. The patient is on a fluid restriction and a cardiac diet which could lead to these abnormal labs (MedlinePlus, 2022). It can also be from the iron deficiency in this patient.</p>
MCH	24.4pg low	24.pg low	26.0-34.0pg	<p>This test is the average of hemoglobin in your red blood cells (WebMD, 2024). This patient has low hemoglobin already which can cause these levels to be abnormal as well.</p>
MPV	8.2fL low	8.7fL low	9.7-12.4fL	<p>Poor outcomes could mean that your medications are preventing your bone marrow from producing enough new platelets (Cleveland Clinic, 2022). Since heart failure is associated with lower bone marrow cellularity, it</p>

				makes sense for the levels to be decreased (Marvasti et al., 2023).
Neutrophils	81.0% high	88.0% high	47.0-73.0%	Neutrophils are associated in heart failure. The patient also has an increased WBC which works directly with neutrophils. Since neutrophils are the first line of defense you can see this lab to be elevated due to the heart failure going on in the body (Cleveland Clinic, 2022).
Absolute neutrophils	9.50mcL high	15.80mcL high	1.60-7.70mcL	This lab can be abnormal and have an increase due to the levels of neutrophils being increased.

Diagnostic Test & Purpose	Clients Signs and Symptoms	Results
<p>XR Chest single view</p> <p>Patient came in with shortness of breath. This test was done to view the patients pulmonary and cardiac system since a chest x-ray is a complete evaluation of those radiographic study (Pagana et al., 2021).</p>	Shortness of breath	The results showed a stable cardiomegaly. There was minimal bilateral pleural effusion. A new finding when comparing to a past chest X-ray, was an interval. It appeared to show a slightly increased and possible right lower pulmonary infiltrates

### Diagnostic Test Reference (1) (APA):

Anil Kumar, and Renu Kadian. "Levetiracetam." *Nih.gov*, StatPearls Publishing, 2019,

[www.ncbi.nlm.nih.gov/books/NBK499890/](http://www.ncbi.nlm.nih.gov/books/NBK499890/).

Cleveland Clinic. “B-Type Natriuretic Peptide (BNP) Test: Normal Levels & Function.” *Cleveland Clinic*, 2022, [my.clevelandclinic.org/health/diagnostics/22629-b-type-natriuretic-peptide](https://my.clevelandclinic.org/health/diagnostics/22629-b-type-natriuretic-peptide).

“Neutrophils.” *Cleveland Clinic*, 21 Jan. 2022, [my.clevelandclinic.org/health/body/22313-neutrophils](https://my.clevelandclinic.org/health/body/22313-neutrophils).

Cleveland clinic. “MPV Blood Test: High MPV, Low MPV & Normal Ranges.” *Cleveland Clinic*, 19 July 2022, [my.clevelandclinic.org/health/diagnostics/23572-mpv-blood-test](https://my.clevelandclinic.org/health/diagnostics/23572-mpv-blood-test).

“FAQs | TRELEGY ELLIPTA (Fluticasone Furoate, Umeclidinium, and Vilanterol).”

[www.trelegy.com](https://www.trelegy.com), [www.trelegy.com/using-trelegy/faqs/](https://www.trelegy.com/using-trelegy/faqs/).

“Hemoglobin Test: MedlinePlus Medical Test.” *Medlineplus.gov*,

[medlineplus.gov/lab-tests/hemoglobin-test/#:~:text=What%20is%20a%20Hemoglobin%20Test](https://medlineplus.gov/lab-tests/hemoglobin-test/#:~:text=What%20is%20a%20Hemoglobin%20Test).

Kawabe, A., Yasu, T., Morimoto, T., Tokushige, A., Momomura, S., Sakakura, K., Node, K., Inoue, T., & Ueda, S. (2021). WBC count predicts heart failure in diabetes and coronary artery disease patients: a retrospective cohort study. *ESC Heart Failure*, 8(5), 3748–3759.

<https://doi.org/10.1002/ehf2.13513>

Marvasti, Tina B, et al. “Heart Failure Impairs Bone Marrow Hematopoietic Stem Cell Function and Responses to Injury.” *Journal of the American Heart Association*, vol. 12, no. 11, 6 June 2023, <https://doi.org/10.1161/jaha.122.027727>. Accessed 14 Sept. 2024.

“MCV (Mean Corpuscular Volume): MedlinePlus Medical Test.” *Medlineplus.gov*, 2022,

[medlineplus.gov/lab-tests/mcv-mean-corpuscular-volume/#:~:text=What%20is%20an%20MCV%20blood](https://medlineplus.gov/lab-tests/mcv-mean-corpuscular-volume/#:~:text=What%20is%20an%20MCV%20blood).

MedlinePlus. “Glomerular Filtration Rate (GFR) Test: MedlinePlus Lab Test Information.”

*Medlineplus.gov*, 9 Sept. 2021, [medlineplus.gov/lab-tests/glomerular-filtration-rate-gfr-test/](https://medlineplus.gov/lab-tests/glomerular-filtration-rate-gfr-test/).

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2021). *Mosby’s diagnostic and laboratory test reference* (15th ed.). Mosby.

“Partial Thromboplastin Time (PTT) Test: MedlinePlus Lab Test Information.” *Medlineplus.gov*, 15 Dec. 2022, [medlineplus.gov/lab-tests/partial-thromboplastin-time-ptt-test/](https://medlineplus.gov/lab-tests/partial-thromboplastin-time-ptt-test/).

“Prothrombin Time Test and INR (PT/INR): MedlinePlus Medical Test.” *Medlineplus.gov*, 16 Sept. 2021, [medlineplus.gov/lab-tests/prothrombin-time-test-and-inr-ptinr/](https://medlineplus.gov/lab-tests/prothrombin-time-test-and-inr-ptinr/).

Morris, Jason, et al. “Metoprolol.” *PubMed*, StatPearls Publishing, 2024, [www.ncbi.nlm.nih.gov/books/NBK532923/#:~:text=Blood%20pressure%20and%20heart%20rate.](https://www.ncbi.nlm.nih.gov/books/NBK532923/#:~:text=Blood%20pressure%20and%20heart%20rate.)

“Renal Artery Stenosis: Symptoms, Causes, Treatments & Tests.” *Cleveland Clinic*, [my.clevelandclinic.org/health/diseases/17422-renal-artery-disease](https://my.clevelandclinic.org/health/diseases/17422-renal-artery-disease).

Sanjana Chetana Shanmukhappa, and Srivatsa Lokeshwaran. “Venous Oxygen Saturation.” *Nih.gov*, StatPearls Publishing, 24 Oct. 2022, [www.ncbi.nlm.nih.gov/books/NBK564395/#:~:text=Cardiac%20Failure%20and%20Cardiac%20Arrest.](https://www.ncbi.nlm.nih.gov/books/NBK564395/#:~:text=Cardiac%20Failure%20and%20Cardiac%20Arrest.) Accessed 14 Sept. 2024.

### Active Orders

Active Orders	Rationale
OT evaluate and treat	Weakness
PT evaluate and treat	Weakness
Aerosol nebulizer initial	Treat asthma
Education HF management	Educating the patient on the importance of their diagnosis is crucial. They should know how to properly take care of themselves the correct way especially when they get discharged. This was an order due to the patient gaining knowledge and understanding

	what they should and shouldn't do to keep themselves healthy.
MDI treatment Rt initial	The patient has a past medical history of asthma and COPD so it is important for the patient to use a metered dose inhaler to help treat the asthma and COPD.
Oxygen therapy	This order was most likely put in to help the shortness of breath the patient is experiencing. It is assisting the patient to breath. The patient was using accessory muscles to breath so this can help alleviate that.
Pulmonary rehab evaluation	This could have been done due to the patient experiencing shortness of breath and other related symptoms to help figure out what was going on with the patient.
Ambulate patient	This order can be recommended to work up the patient's tolerance to decrease shortness of breath.
Cardiac monitoring	The patient has a diagnosis of CHF, so it is important to monitor the patient's cardiac rhythm to check for irregularities.
Strict intake/output	Fluid in body
Cardiac restriction diet	The patient is on a cardiac diet because it can be harder for the heart to pump if there is excess sodium in the bloodstream (Brown et al., 2020).
Sodium restriction diet	A sodium restricted diet can help lower the already high blood pressure from the diagnosis of heart failure (Konerman and Hummel, 2014).
Daily weight	The patient is on a fluid restriction to detect fluid in the body since the patient is diagnosed with congestive heart failure.
Telemetry monitoring	This is important to keep track of especially since the patient was diagnosed with CHF. This lets the workers be updated in the heart health of the patient. You also can be shown if there are any irregularities and if medications are working or not (Kunde, 2022).

### Medications

#### Home Medications (Must List ALL)

<b>Brand/ Generic</b>	acetaminophen- codeine (Tylenol) 30mg tablet every 6 hours PRN by mouth	tramadol (Ultram) 50mg tablet 2x daily by mouth	isosorbide mononitrate (Monoket) 60mg tablet SR 24 hr by mouth	nitroglycerin (Nitrostat) 0.4mg tablet PRN by mouth	albuterol (Ventolin HFA) 2.5mg nebulization	montelue (Singulaa 10mg tab the PM b mouth
<b>Classification</b>	Pharmacologica l class: Nonsalicylate, para- aminophenol derivative  Therapeutic class: Antipyretic, nonopioid analgesic  (Jones and Bartlett, 2023).	Pharmacologica l class: opioid agonist  Therapeutic class: opioid analgesic  (Jones and Bartlett, 2023).	Pharmacological class: Nitrate  Therapeutic class: Antianginal  (Jones and Bartlett, 2023).	Pharmacological class: Nitrate  Therapeutic class: Antianginal, vasodilator  (Jones and Bartlett, 2023).	Pharmacologica l class: Adrenergic  Therapeutic class: Bronchodilator  (Jones and Bartlett, 2023).	Pharmac l class: Leukotrie receptor antagonis  Therapeu class: Antiallerg antiasthm  (Jones an Bartlett, 2
<b>Reason Client Taking</b>	Taking for pain as needed	Taking for pain	To prevent angina (Jones and Bartlett, 2023).	Taking for chest pain as needed	Taking for wheezing that is present	To treat a
<b>Key nursing assessment(s) prior to administration</b>						Assess lu sounds an respirator function  Monitor behavior changes

						(Jones and Bartlett, 2023).
<b>Brand/ Generic</b>	Trelegy Ellipta Aerosol Powder Breath 1 puff every 24 hours	apixaban (Eliquis) 5mg tablet 2x daily by mouth	gabapentin (Neurontin) 300mg capsule take in the PM by mouth	levetiracetam (Keppra) 500mg tablet 2x daily by mouth	empagliflozin (Jardiance) 10mg tablet daily by mouth	
<b>Classification</b>		Pharmacologic class: Factor Xa inhibitor  Therapeutic class: Anticoagulant  (Jones and Bartlett, 2023).	Pharmacologic class: 1-amino-methyl cyclohexaneacetic acid  Therapeutic class: Anticonvulsant  (Jones and Bartlett, 2023).	Pharmacological class: Pyrrolidine derivative  Therapeutic class: Anticonvulsant  (Jones and Bartlett, 2023).	Pharmacological class: Sodium glucose cotransporter 2 inhibitor  Therapeutic class: Antidiabetic  (Jones and Bartlett, 2023).	
<b>Reason Client Taking</b>	Taking to treat asthma and COPD  (Jones and Bartlett, 2023).	Taking this to reduce the risk of stroke and blood clots in patients with nonvalvular atrial fibrillation  (Jones and Bartlett, 2023).	Taking to treat partial seizures. Patient has a past medical history of seizures.  (Jones and Bartlett, 2023).		Improve glycemic control for type 2 diabetes mellitus  (Jones and Bartlett, 2023).	
<b>Key nursing assessment(s) prior to administration</b>	Assess BMD  Check allergies  (Jones and Bartlett, 2023).			Baseline creatine levels should be checked before administering.  Monitor mood changes for behaviors  (Kumar and Kadian, 2019).	Obtain serum creatinine level prior to starting medication because it can cause adverse renal effects  Assess patient's volume status because drug can cause intravascular volume	

					contraction that can lead to symptomatic hypotension. Elderly patients with congestive heart failure are more at risk.  (Jones and Bartlett, 2023).	
<b>Brand/ Generic</b>	rosuvastatin calcium (Crestor) 20mg tablet PM with a meal by mouth	cholecalciferol (Vitamin D3) 1,000-unit tablet 2x daily by mouth	metoprolol succinate (Toprol-XL) 50mg tablet SR 24 hr 2x AM and PM by mouth	furosemide (Lasix) 40mg tablet daily by mouth	spironolactone (Aldactone) 25mg tablet daily by mouth	
<b>Classification</b>	Pharmacological class: HMG-CoA reductase inhibitor  Therapeutic class: Antilipemic  (Jones and Bartlett, 2023).		Pharmacological class: Beta1-adrenergic blocker  Therapeutic class: Antianginal, antihypertensive  (Jones and Bartlett, 2023).	Pharmacological class: Loop diuretic  Therapeutic class: Antihypertensive , diuretic  (Jones and Bartlett, 2023).	Pharmacological class: Potassium-sparing diuretic  Therapeutic class: Diuretic  (Jones and Bartlett, 2023).	
<b>Reason Client Taking</b>	Taking as adjunct to treat hyperlipidemia. Patient has a past medical history of hyperlipidemia  (Jones and Bartlett, 2023).		Taking to manage hypertension. Patient has a past medical history of hypertension.  (Jones and Bartlett, 2023).	Taking to treat fluid volume overload and edema from heart failure.  (Jones and Bartlett, 2023).		
<b>Key nursing assessment(s) prior to administration</b>			Assess blood pressure and heart rate  Monitor blood	Obtain patient's weight  Obtain blood pressure	Monitor for adverse reactions. Renal impairment patients are	

			glucose levels  (Morris et al., 2024).	(Jones and Bartlett, 2023).	more at risk.  Assess blood pressure  (Jones and Bartlett, 2023).	
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<b>Brand/Generic</b>	polyethylene glycol 17gm/scoop powder daily by mouth	potassium chloride (Apo-K) 2mEq tablet 2x daily by mouth	clopidogrel (PLAVIX) 75mg tablet daily by mouth	pantoprazole (Protonix) 40mg tablet daily by mouth		
<b>Classification</b>	Pharmacological class:	Pharmacological class: Electrolyte cation  Therapeutic class: Electrolyte replacement  (Jones and Bartlett, 2023).		Pharmacological class: Proton pump inhibitor  Therapeutic class: Antiulcer  (Jones and Bartlett, 2023).		
<b>Reason Client Taking</b>		Help with the cardiac diet and fluid restriction  (Jones and Bartlett, 2023).		Reduce the amount of stomach acid  (Jones and Bartlett, 2023).		
<b>Key nursing assessment(s) prior to administration</b>		Review patient's medical history  Monitor serum potassium levels  (Jones and Bartlett, 2023).		Monitor PT or INR  Monitor urine output  (Jones and Bartlett, 2023).		

**Hospital Medications (Must List ALL)**

<b>Brand/Generic</b>	acetaminophen (Tylenol) 650mg tablet every 4 hours PRN by mouth	albuterol (Ventolin HFA) 2.5mg nebulizer every 6 hours PRN by mouth	apixaban (Eliquis) 5mg tablet 2x daily by mouth	clopidogrel (PLAVIX) 75mg tablet daily by mouth	docusate sodium (COLACE) 200mg capsule daily by mouth	empagliflozin (Jardiance) 10mg tablet daily by mouth
<b>Classification</b>	Pharmacological class: Nonsalicylate, para-aminophenol derivative  Therapeutic class: Antipyretic, nonopioid analgesic  (Jones and Bartlett, 2023).	Pharmacological class: Adrenergic  Therapeutic class: Bronchodilator  (Jones and Bartlett, 2023).	Pharmacologic class: Factor Xa inhibitor  Therapeutic class: Anticoagulant  (Jones and Bartlett, 2023).			Pharmacological class: SGLT2 inhibitor  Therapeutic class: Antidiabetic  (Jones and Bartlett, 2023).
<b>Reason Client Taking</b>	Taking for severe-mild pain or if pt requests	Taking for wheezing that is present	Taking this to reduce the risk of stroke and blood clots in patients with nonvalvular atrial fibrillation  (Jones and Bartlett, 2023).			Improving glycemic control for type 2 diabetes  (Jones and Bartlett, 2023).
<b>Key nursing assessment(s) prior to administration</b>	Use acetaminophen cautiously in patients with hepatic impairment or active hepatic disease, alcoholism, chronic malnutrition, severe hypovolemia, or					Obtain creatinine prior to medication because of risk of renal impairment  Assess volume because of risk of hypovolemia  can cause intravas-

	severe renal impairment  Monitor renal function in patients on long-term therapy  (Jones and Bartlett, 2023).					volume contrac can lea sympto hypoten Elderly with co heart fa more at  (Jones Bartlett
<b>Brand/Generic</b>	furosemide (Lasix) 40mg IV	isosorbide mononitrate (Monoket) 60mg tablet SR 24 hr by mouth	levetiracetam (Keppra) 500mg tablet 2x daily by mouth	metoprolol succinate (Toprol-XL) 50mg tablet SR 24 hr 2x AM and PM by mouth		
<b>Classification</b>	Pharmacological class: Loop diuretic  Therapeutic class: Antihypertensive, diuretic  (Jones and Bartlett, 2023).	Pharmacological class: Nitrate  Therapeutic class: Antianginal  (Jones and Bartlett, 2023).	Pharmacological class: Pyrrolidine derivative  Therapeutic class: Anticonvulsant  (Jones and Bartlett, 2023).	Pharmacological class: Beta1-adrenergic blocker  Therapeutic class: Antianginal, antihypertensive  (Jones and Bartlett, 2023).		
<b>Reason Client Taking</b>	Taking to treat fluid volume overload and edema from heart failure.  (Jones and Bartlett, 2023).	To prevent angina  (Jones and Bartlett, 2023).		Taking to manage hypertension. Patient has a past medical history of hypertension.  (Jones and Bartlett, 2023).		
<b>Key nursing</b>	Obtain patient's			Assess blood		

<b>assessment(s) prior to administration</b>	weight Obtain blood pressure  (Jones and Bartlett, 2023).			pressure and heart rate  Monitor blood glucose levels  (Morris et al., 2024).		
<b>Brand/Generic</b>						
<b>Classification</b>						
<b>Reason Client Taking</b>						
<b>Key nursing assessment(s) prior to administration</b>						

**Prioritize Three Hospital Medications**

<b>Medications</b>	<b>Why this medication was chosen</b>	<b>List 2 side effects. These must correlate to your client</b>
<b>1. Furosemide</b>	I chose this medication because the patient has a lot of excess fluid in her body so getting that under control is important.	<b>1.</b> <b>2.</b>
<b>2.</b>		<b>1.</b> <b>2.</b>
<b>3.</b>		<b>1.</b> <b>2.</b>

**Medications Reference (1) (APA)**

## Physical Exam

### HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

<b>GENERAL:</b> <b>Alertness:</b> <b>Orientation:</b> <b>Distress:</b> <b>Overall appearance:</b> <b>Infection Control precautions:</b> <b>Client Complaints or Concerns:</b>	Patient is A/O x4 with slight confusion while in and out of conversations. She was slightly distressed due to the shortness of breath she was experiencing. The overall appearance of the patient was well. She was groomed and clean looking. No precautions were in place. Patient complained of being sore.
<b>VITAL SIGNS:</b> <b>Temp:</b> <b>Resp rate:</b> <b>Pulse:</b> <b>B/P:</b> <b>Oxygen:</b> <b>Delivery Method:</b>	0800 vitals: Temp 97 F, Resp rate 22, Pulse 120, B/P 132/78, O2 97% nasal cannula  1100 vitals: Temp 96.8 F, Resp rate 22, Pulse 122, B/P 153/94, O2 97% nasal cannula
<b>PAIN ASSESSMENT:</b> <b>Time:</b> <b>Scale:</b> <b>Location:</b> <b>Severity:</b> <b>Characteristics:</b> <b>Interventions:</b>	0942: Patient stated that she was having pain in her buttock and overall soreness in her body. She rated her pain on a number scale from 0-10 a 7. She described the pain characteristics as soreness. She has a PRN med for Tylenol for pain.
<b>IV ASSESSMENT:</b> <b>Size of IV:</b> <b>Location of IV:</b> <b>Date on IV:</b> <b>Patency of IV:</b> <b>Signs of erythema, drainage, etc.:</b> <b>IV dressing assessment:</b> <b>Fluid Type/Rate or Saline Lock:</b>	Patient had a 20G IV. It was placed in her left forearm antecubital. The IV was placed on 9/8/24. IV flows freely. There are no signs of erythema or drainage. IV site was clean, dry, and intact. A transparent dressing was present. Saline lock.
<b>INTEGUMENTARY:</b> <b>Skin color:</b> <b>Character:</b> <b>Temperature:</b> <b>Turgor:</b> <b>Rashes:</b> <b>Bruises:</b> <b>Wounds:</b> <b>Braden Score:</b> <b>Drains present:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Type:</b>	Patient skin color was expected for race without lesions or rashes. She has thin and wrinkled skin. It was cooler to touch. Patient had a few bruises on the upper extremities and a small scab on her left arm. Turgor was normal. No drains or wounds were present. Patient has a Braden Score of 20.
<b>HEENT:</b> <b>Head/Neck:</b> <b>Ears:</b>	Head is symmetrical and normocephalic. No tenderness or visible or palpable masses. Hair is of normal texture and evenly distributed.

<b>Eyes:</b> <b>Nose:</b> <b>Teeth:</b>	Conjunctivae are clear. EOM are intact, PERRLA. Patient is hard of hearing. Nasal mucosa is pink and moist. Nasal septum is midline. Poor oral hygiene. Has missing teeth.
<b>CARDIOVASCULAR:</b> <b>Heart sounds:</b> <b>S1, S2, S3, S4, murmur etc.</b> <b>Cardiac rhythm (if applicable):</b> <b>Peripheral Pulses:</b> <b>Capillary refill:</b> <b>Neck Vein Distention:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Edema</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Location of Edema:</b>	Patient's heart sounds were irregular. Peripheral pulses were higher than normal range at 122 beats per minute. Capillary refill was less than 3 seconds. No neck vein distention or edema was present
<b>RESPIRATORY:</b> <b>Accessory muscle use:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> <b>Breath Sounds: Location, character</b>	Accessory muscle use was present. Slight wheezing was present in the breath sounds when listening to the lungs.
<b>GASTROINTESTINAL:</b> <b>Diet at home:</b> <b>Current Diet:</b> <b>Is Client Tolerating Diet?</b> <b>Height:</b> <b>Weight:</b> <b>Auscultation Bowel sounds:</b> <b>Last BM:</b> <b>Palpation: Pain, Mass etc.:</b> <b>Inspection:</b> <b>Distention:</b> <b>Incisions:</b> <b>Scars:</b> <b>Drains:</b> <b>Wounds:</b> <b>Ostomy:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Nasogastric:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Size:</b> <b>Feeding tubes/PEG tube</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Type:</b>	Patient stated she has no specific diet at home that she follows. She described she enjoys eating toast with juice and coffee. Patient currently has a fluid restriction diet and cardiac diet. Patient is tolerating the diet. She is 4'10 and 160 pounds. Bowel sounds are hypoactive. Patient stated her last bowel movement was the morning of 9/9/24/. No pain or masses were present or complained of while palpating the abdomen. No abnormalities were seen during inspection of the abdomen except for a scar around the umbilical area. Slight distention was seen. Patient did not have an ostomy bag or any NG tubes and feeding tubes.
<b>GENITOURINARY:</b> <b>Color:</b> <b>Character:</b> <b>Quantity of urine:</b> <b>Pain with urination:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Dialysis:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Patient had normal color urine which was yellow/clear. Patient had a pure wick that dispensed 100mL. No pain while urinating. Patient genitals were clean, no abnormalities. No catheters or dialysis.

<b>Inspection of genitals:</b> <b>Catheter:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>Type:</b> <b>Size:</b>	
<b>Intake (in mLs)</b>  <b>Output (in mLs)</b>	Intake: 480mL of fluids taken by mouth  Output: 100mL of urine
<b>MUSCULOSKELETAL:</b> <b>Neurovascular status:</b> <b>ROM:</b> <b>Supportive devices:</b> <b>Strength:</b> <b>ADL Assistance:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> <b>Fall Risk:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> <b>Fall Score:</b> <b>Activity/Mobility Status:</b> <b>Activity Tolerance:</b> <b>Independent (up ad lib)</b> <b>Needs assistance with equipment</b> <b>Needs support to stand and walk</b>	Patient was partially confused. ROM was normal. Patient uses a walker when at home. Patient is also a fall risk with a score of 67. Patient is able to stand with assistance and follow basic instructions.
<b>NEUROLOGICAL:</b> <b>MAEW:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> <b>PERLA:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> <b>Strength Equal:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no - <b>Legs</b> <input type="checkbox"/> <b>Arms</b> <input type="checkbox"/> <b>Both</b> <input type="checkbox"/> <b>Orientation:</b> <b>Mental Status:</b> <b>Speech:</b> <b>Sensory:</b> <b>LOC:</b>	Patient moves all extremities well. PERLA. Patient has equal strength in all extremities. Patient is A/O x4 but has some confusion. Speech is mumbled, can be hard to understand. No pain or sensitivity to sensory. LOC is normal. Patient mental status is normal with some confusion.
<b>PSYCHOSOCIAL/CULTURAL:</b> <b>Coping method(s):</b> <b>Developmental level:</b> <b>Religion &amp; what it means to pt.:</b> <b>Personal/Family Data (Think about home environment, family structure, and available family support):</b>	Patient lives alone at her own residence. She is widowed and her husband died in 2017. She has 3 kids who often visit her. One of her daughters comes and cooks for her and helps around the house. She is a Christian. Patient described her coping methods as relaxing or reading.

### Discharge Planning

**Discharge location:**

**Home health needs:**

**Equipment needs:**

**Follow up plan:**

**Education needs:**

### Nursing Process

**\*Must be NANDA approved nursing diagnosis and listed in order of priority\***

<b>Nursing Diagnosis</b> <ul style="list-style-type: none"> <li>• Include full nursing diagnosis with “related to” and “as evidenced by” components</li> <li>• Listed in order by priority – highest priority to lowest priority pertinent to this client</li> </ul>	<b>Rationale</b> <ul style="list-style-type: none"> <li>• Explain why the nursing diagnosis was chosen</li> </ul>	<b>Outcome Goal (1 per dx)</b>	<b>Interventions (2 per goal)</b>	<b>Evaluation of interventions</b>
1. Impaired gas exchange related to ineffective breathing pattern as evidence by patient experiencing shortness of breath (Phelps, 2023, p 277).	I chose this nursing diagnosis due to airway being an important factor. Improving the patient’s breathing pattern and get in under control.	Patient will report an absence shortness of breath by the end of the week.	1.Ambulate patient once daily  2.Place patient in position that best facilitates chest expansion (Phelps, 2023, p 277).	Patient ambulated well and always wanted to work towards decreasing her shortness of breath. She also appreciated being in a position that made it easier for her to breathe.
2. Decreased cardiac output related to altered heart rate as evidence	I chose this nursing diagnosis because the patient had an irregular heart	Patients heart rate with decrease to normal	1. Increase patient oxygen flow rate (Phelps, 2023, p 82).	Patient was cooperative with the interventions. Patient always

by heart palpitations (Phelps, 2023, p 81).	rate and rhythm	limits within the next 2 days.	2. Monitor every 4 hours for dyspnea and fatigue (Phelps, 2023, p 82).	responded if asked about fatigue or dyspnea.
3. Excess fluid volume related to excessive sodium intake as evidence by patient on a sodium restriction diet (Phelps, 2023, p 265).	I chose this diagnosis because the patient has excess fluid in her body. We want to be able to decrease the fluid in her body.	Patient's blood pressure will be within normal limits	1. Monitor intake and output  2. Make up a schedule with patient for fluid intake (Phelps, 2023, p 267).	Patient understood the reason for being on a restricted diet. She appreciated the idea of making a schedule to know how much fluid she could have. It made it easier to be on a schedule to utilize the amount of fluid she could take in.

### Other References (APA):

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