N321 Care Plan # 3

Lakeview College of Nursing

Name: Richard Kumpi

Demographics (3 points)

Date of Admission 3/10/21	Patient Initials TP	Age 71	Gender M
Race/Ethnicity White Caucasian	Occupation Retired / veteran	Marital Status Married	Allergies doxazosin
Code Status Full	Height 5' 11"	Weight 83.2kg	

Medical History (5 Points)

Past Medical History: CHF, COPD, DM, BPH, Hypertension, CAD, Seizure, Iron deficiency.

Past Surgical History: hernia rep, colon resection laparoscopy.

Family History: Father and Mother died of heart attack.

Social History (tobacco/alcohol/drugs): Patient quit smoking since 1996; he used to smoke 3packs per day for 9 years. He used to drink 2 biers per day for pleasure for over 20 years. He also used to use drug (marijuana) for over 12 years.

Assistive Devices: uses walker, rolling, and grab bar at home.

Living Situation: He lives at home with his wife.

Education Level: patient has a college degree.

Admission Assessment

Chief Complaint (2 points):shortness of breath, coughing, and vomiting.

History of present Illness (10 points):On March 10th, 2021, a 71 y/o white Caucasian married male was brought to the ED of OSF Sacred Heart Medical Center for shortness of breath with cough and vomiting that started earlier in the morning on that same date. Patient stated that "shortness of breath was worsening when moving or lying down and was having mild chest pain." Patient reported that seating upright would a little bit relieve

his shortness of breath but would still not be able to perform any work. Patient reported that he was coughing frothy sputum. Patient reported not taking any medicaments to relieve the shortness of breath, cough, or vomiting. At ED patient was given an IV Lasix to reduce extra fluid to lessen his SOB. As admitted to the hospital, patient is on continuous diuresis, cardiac diet and breathing has improved. Other diagnosis test has been done for further treatment.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Exacerbation of CHF

Secondary Diagnosis (if applicable):Wound and pain management

Pathophysiology of the Disease, APA format (20 points): Congestive heart failure (CHF) is a chronic and progressive clinical syndrome that occurs when the heart muscle loses its ability to pump enough blood in order to meet the needs of the body. The cardiac structural or function are compromised, and the heart is no longer able to receive or pump blood. In the pass, physicians used to refer heart failure to congestive heart failure, because most of the patients would develop pulmonary or peripheral congestive as blood backs up into lungs and lower body parts (Hinkle & Cheever, 2018). The major types of congestive heart failure are left- sided and right-sided congestive heart failure with the left-sided congestive heart failure being the most common. In most cases, Congestion Heart failure (CHF) is characterized by ventricular dysfunction, which leads to reduced cardiac output or reduced ventricular ejection fraction (website).

At cellular level, "a patient with CHF when trying to support sufficient cardiac performance, the adaptive mechanisms that may be adequate to maintain the overall

contractile performance of the heart at relatively normal levels become maladaptive"
(web). The patient's body triggers neurohormonal compensatory mechanisms, which
represent the body's efforts to cope with the failing heart. Epinephrine and norepinephrine
are released by the sympathetic nervous system once the baroreceptors in the aortic and
carotids notice the diminished blood flow resulting in increased heart rate and contractility
to compensate the failing myocardium. There will be a reduced renal perfusion causing the
kidneys to release the renin. There will be conversion of angiotensin I to angiotensin II
causing the increase of blood pressure and afterload. The adrenal cortex releases
aldosterone causing sodium and fluid retention by the renal tubules, resulting in increased
blood volume and fluid volume overload. Finally, the overdistended cardiac chambers
releases BNP to promote vasodilation and diuresis but cannot compensate the damage. The
heart contractility decreases, the overload increases, causing ventricular dilation (Hinkle &
Cheever, 2018).

 Congestive heart failure can be caused by many underlying physical conditions such
as Diabetes mellitus, Obesity, Hypertension, Coronary Artery Disease, valvular disorders,
Idiopathic dilated cardiomyopathy, Atrial fibrillation, and hyperlipidemia (web). Clinical
manifestations of congestive heart failure include fatigue, dyspnea or shortness of breath,
which may indicate pulmonary edema; exercise intolerance, fluid retention, which causes
pulmonary and peripheral edema; weight gain, cough, irregular heartbeats, crackles in the
lungs (web).

 Diagnostic tests include Electrocardiogram (ECG) to identify evidence myocardial
infarction or acute ischemia, also abnormal rhythms, such as atrial fibrillation; distinguish
whether is a systolic failure, an altered ventricular contraction or a diastolic heart failure.

An Echocardiogram would record the heart's structure and motion; and determine if there is a poor blood flow, muscle damage, or abnormal muscle contraction. A chest x-ray is taken to assist in diagnosis by visualizing the characteristics of the heart and lungs. Some lab tests such as complete blood count (CBC), BNP, urinalysis, creatinine, liver enzyme tests, and blood urea nitrogen (BUN). An elevated BNP is a significant diagnostic indicator for CHF, because the higher the BNP the more damage to the heart muscles (Hinkle & Cheever, 2018). In the case of my client, a chest X-ray revealed infiltration in lungs bilaterally with blunting of both costophrenic angles, a cardiomegaly with calcification in the aortic knob. The Echocardiogram revealed enlarged left ventricle, reduced left ventricle systolic and ejection fraction of 35-40%. The ECG revealed ST and T wave abnormality lateral ischemia, incomplete left bundle branch block. His BNP elevated to 1,212, which is very high, indicating significant damage to the heart muscles.

Treatment for CHF consists of diuretics, beta-blockers, and ACE inhibitors. An implantable cardioverter defibrillator can be used to prevent sudden cardiac death. My patient is on furosemide for fluid overload, atorvastatin to crease LDL and increase HDL, metoprolol for hypertension. Patient is on low sodium diet and restricted fluid (Hinkle & Cheever, 2018). Statistics show that approximately 6 million people in the USA are affected by the heart failure; it is the most common cause of hospitalization for people over 65 y/o and the second common cause leading to seek a physician. About 25% of patients are readmitted to the hospital within 30 days after being discharged. In general, heart failure costs an annual federal budget of about $30 billion for treatment (Hinkle & Cheever, 2018). Pathophysiology References (2) (APA):

Capriotti, T. (2020). Pathophysiology: introductory concepts and clinical perspectives.

Philadelphia: F.A. Davis Company.

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

Laboratory Data (15 points)

CBC <mark>Highlight All Abnormal Labs</mark>—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	M:4.5-6 million F: 4-5.5 million	3.54<	Not drawn	RBC are low in a case of hemorrhage, decreased production in the bone marrow, kidney impairment, anemia, and certain medications. Patient is taking ceftriaxone and aspirin, which have side effect of hemolytic anemia (Hinkle & Cheever, 2018).
Hgb	M: 14-16g/dl F: 12-15 g/dl	8.7<	Not drawn	Hgb is decreased in case of anemia, fluid retention, renal failure, chronic diseases, hemorrhage, or some medications. Patient is taking ceftriaxone and aspirin, which have side effect of hemolytic anemia (Hinkle & Cheever, 2018)
Hct	M: 35-47% F: 42-52%	27.1<	Not drawn	Hgb is decreased in case of anemia, fluid retention, renal failure, chronic diseases, hemorrhage, or some medications. Patient is taking ceftriaxone and aspirin, which have side effect of hemolytic anemia (Hinkle & Cheever, 2018)
Platelets	150,000-400,000 cells	529>	Not drawn	Thrombocytosis happens in case of hemorrhage, trauma, cancer,

	mm3			infections, iron deficiency, inflammatory disorders, and some meds. Patient has iron deficiency and COPD, and is taking Ceftriaxone, which may increase platelets production (Hinkle & Cheever, 2018).
WBC	4,500-11,000 cell/mm3	9.90	Not drawn	
Neutrophils	45-75%	85.5>	Not drawn	Neutrophil levels are elevated in the presence of infection, depression, stress, inflammation. Patient has wounds at the coccyx bone and might also be under stress (Hinkle, 2018)
Lymphocytes	20-40%	7.7<	Not drawn	Lymphocytes decrease in case of immunosuppression diseases, stress, infections, and bonne morrow suppression. The client has wounds and might be running an infection and might be under stress, which may cause his immune system to fall (Hinkle & Cheever, 2018).
Monocytes	4-6%	5.4	Not drawn	
Eosinophils	¿ 7%	1.0	Not drawn	
Bands	¿ 0-5%	Not drawn	Not drawn	

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-	135-145 mmol/L	Not drawn	139	
K+	3.5-5.0 mmol/L	Not drawn	3.8	
Cl-	98-107 mmol/L	Not drawn	102	
CO2	35-45 mm Hg	Not drawn	27	CO2 can be low due to hyperventilation, tachycardia, lactic acidosis, ketoacidosis,

				kidney disease, aspirin overdose… but none of these fit my patient. It could be aspirin overdose since he's taking aspirin (Hinkle & Cheever, 2018).
Glucose	70-100 mg/dL	**138**	**123>**	**Blood sugar elevated due to type 2 diabetes mellitus (Hinkle, 2018)**
BUN	8-25 mg/dL	Not drawn	22	
Creatinine	0.6-1.3 mg/dL	**1.11>**	Not drawn	**Creatine values are increased in patients who are dehydrated, patient with kidney disease, or CHF patients treated ACEI. Patient is taking Lisinopril (Hinkle, 2018).**
Albumin	3.5-5.2 mg/dL	**3.0<**	Not drawn	**Albumin levels are decreased in patients with inflammation, heart failure, liver disease or poor nutrition. My patient has CHF and might also be in poor nutritional state when admitted to the hospital (Hinkle, 2018)**
Calcium	8.6-10 mg/dL	Not drawn	8.9	
Mag	1.3-2.3 mEq/L	Not drawn	Not drawn	
Phosphate	2.5-4.5 mg/dL	Not drawn	Not drawn	
Bilirubin	0.1-1.4 mg/dL	Not drawn	Not drawn	
Alk Phos	44-147 U/L	Not drawn	Not drawn	
AST	10-30 U/L	Not drawn	Not drawn	
ALT	10-40 U/L	Not drawn	Not drawn	
Amylase	30-110U/L	Not drawn	Not drawn	
Lipase	0-160 U/L	Not drawn	Not drawn	
Lactic Acid	0.5-2.2 mmol/L	Not drawn	Not drawn	

Other Tests <mark>Highlight All Abnormal Labs</mark>—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	2-3	<mark>1.3<</mark>	Not drawn	INR is used to test the effectiveness of oral anticoagulant. Since INR is low this means that the oral anticoagulant is not effective (Hinkle, 2018).
PT	M:9.6-11.8 sec F:9.5-11.3 sec	<mark>16.8></mark>	Not drawn	The patient's PT is prolonged because client is taking aspirin, antiplatelet to prevent clot formation (Hinkle & Cheever, 2018).
PTT	30-40 sec	Not drawn	Not drawn	
D-Dimer	¿ 250 ng/mL	Not drawn	Not drawn	
BNP	¿ 100 ng/L	<mark>1,212></mark>	Not drawn	BNP is a cardiac enzyme synthesized in cardiac ventricle; it is a primary sign indicating HF. Patient is diagnosed with exacerbated CHF (Hinkle & Cheever, 2018).
HDL	> 60	Not drawn	Not drawn	
LDL	¿ 130 mg/dL	Not drawn	Not drawn	
Cholesterol	¿ 200 mg/dL	Not drawn	Not drawn	
Triglycerides	¿ 150 mg/dL	Not drawn	Not drawn	
Hgb A1c	4-5.6 %	Not drawn	Not drawn	
TSH	0.5-5.0 mlU/L	Not drawn	Not drawn	

Urinalysis <mark>Highlight All Abnormal Labs</mark>—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	Colorless-yellow, clear	Clear/ yellow	Not drawn	
pH	4.5-8	5.0	Not drawn	
Specific Gravity	1.005-1.035	1.016	Not drawn	
Glucose	none	none	Not drawn	
Protein	none	none	Not drawn	
Ketones	none	none	Not drawn	
WBC	None or rare	0-5	Not drawn	Presence of WBC in urine may be due to UTI, kidney disease, leukocytosis or cancer, but none of these fit my patient. I would guess patient is running an infection (Hinkle & Cheever, 2018).
RBC	None or rare	none	Not drawn	
Leukoesterase	none	1+	Not drawn	leukocyte esterase is a screening test used to detect WBC in urine. Patient tested positive, which confirm the presence of WBC in urine (Hinkle & Cheever, 2018).

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	≥ 100,000/ml	Collected/no result available	Not drawn	
Blood Culture		neg	neg	
Sputum Culture		Not drawn	Not drawn	

Stool Culture		Not drawn	Not drawn	

Lab Correlations Reference (1) (APA):

Hinkle, J.L., & Cheever, K.H. (2018). *Brunner & Suddarth's textbook of Medical Surgical*

Nursing. 14th Wolters Kluwer.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

XR chest single view portable:

Lungs: basilar infiltrates bilaterally with blunting of both costophrenic angles. Some mild

prominence of pull vascular.

Heart: cardiomegaly aorta is tortuous with calcification in the aortic knob. Mild cough

with blunting of both

ECHO:

Left ventricle size mildly enlarged, systolic is moderate decreased.

Estimated ejection fraction is 35-40%.

Mild concentric left ventricle hypertrophy present.

Mitral valve: regurgitation, moderate pueron hyperoxias.

Left atrial: moderately enlarge.

EKG M: atrial 73, QRS: 110, QT: 430, T axis: 173, ventricle rate: 73. ST wave abnormally

lateral ischemia. Sinus rhythm with 1st doge, AV block with premature supraventricular

complex, incomplete left bunde bresh block.

Diagnostic Test Correlation (5 points):

Diagnostic Test Reference (1) (APA):

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/ Generic	Aspirin EC/ Acetylsalicy lic acid (Jones & Bartlett, L, 2020)	Gabapentin /Neurontin (Jones & Bartlett, L, 2020)	Magnesium oxide /Mag-Ox (Jones & Bartlett, L, 2020)	Tamsulosin/ Flomax (Jones & Bartlett, L, 2020)	Finasteride/ Proscar (Jones & Bartlett, L, 2020)
Dose	**81 mg**	**100 mg 1tab**	**400mg tab**	**0.4 mg capsule**	**5mg**
Frequency	**1 tab Daily**	**1/day at bedtime**	**1tablet daily**	**1/day at bedtime**	**daily**
Route	**Oral**	**Oral**	**Oral**	**Oral**	**Oral**
Classification	**NSAID**	**Anti-convulsion**	**Electrolyte replacemen t**	**Benign prostatic hyperplasia agent.**	**Benign prostatic hyperplasia agent.**
Mechanism		**It mimics**	**It assists all**	**Blocks**	**Inhibits 5-**

of Action	Blocks the activity of cyclooxygenase, the enzyme needed for prostaglandin synthesis. Anti-inflammatory	the neurotransmitter GABA, inhibition of the alpha 2-delta subunit of voltage-gated calcium channels.	enzymes involved in phosphate transfer reactions that use adenosine triphosphate.	alpha1 adrenergic receptors in the prostate, inhibiting smooth muscle contraction in the bladder neck and prostate, prostatic capsule, and prostatic urethra which improve the rate of urine flow.	alpha reductase, an intracellular enzyme that converts testosterone to its metabolite 5-alpha dihydrotestosterone in liver, prostate, and skin.
Reason Client Taking	More likely for CAD and heart failure.	Pain neuropathy	Magnesium supplement	For prostate	For prostate
Contraindications (2)	Active bleeding Hypersensitivity to aspirin	Depression Hypersensitivity to gabapentin	Hypersensitivity to magnesium salts. Sever renal impairment	Hypersensitivity to tamsulosin Hypersensitivity to quinazolines.	Hypersensitivity to finasteride Liver problems
Side Effects/ Adverse Reactions (2)	Confusion & Depression	Agitation Dizziness	Confusion Syncope	Drowsiness Dry mouth	Depression Hypotension
Nursing Considerations (2)	Do not crush enteric coated tablets Ask about tinnitus	May mix tablet with applesauce, pudding, fruit juice before administration Administer	Be aware that magnesium sulfate is the elemental form of magnesium. Oral	Give meds about 30 minutes after the same meal each day Know that if patient takes drug	Be aware that patient should have a urologic evaluation prior to starting the meds because it can increase

		initial dose for Neurontin brand at bedtime to minimize adverse reactions of ataxia, dizziness, somnolence.	preparation aren't all equivalent. Be aware that drug isn't metabolized. Drug remaining in the GI tract produces watery stool within 30 minutes to 3 hours.	on an empty stomach his BP should be monitored because of the increased risk of orthostatic hypotension.	risk of prostate cancer. Be aware that finasteride therapy can affects PSA levels.

Hospital Medications (5 required)

Brand/ Generic	Furosemide / Lasix inject (Jones & Bartlett, L, 2020)	Ceftriaxone/ Rocephin injection (Jones & Bartlett, L, 2020)	Metoprolol Succinate/ Toprol XL tablet (Jones & Bartlett, L, 2020)	Atorvastatin/ Lipitor (Jones & Bartlett, L, 2020)	Lisinopril/ Prinivil, Zestril (Jones & Bartlett, L, 2020)
Dose	40mg	1g	50 mg	40 mg	2.5mg
Frequency	2x, daily	Single dose	Twice daily	Nightly	Daily
Route	IV	IV	Oral	Oral	Oral

Classification	Loop diuretic	Antibiotic	Beta1 adrenergic blocker, antianginal.	HMG-CoA reductase inhibitor and antihyperlipidemic.	Angiotensin-converting enzyme inhibitor
Mechanism of Action	Inhibit sodium and water reabsorption in loop of Henle and increase urine formation.	Interferes with bacterial cell wall synthesis by inhibiting cross-linking of peptidoglycan strands.	Inhibits stimulation of beta 1 receptor sites, located mainly in the heart, resulting in decreased cardiac excitability, cardiac output, and myocardial oxygen demand	Reduces cholesterol and lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in liver by increasing LDL receptors on liver to enhance LDL uptake and breakdown.	May reduce blood pressure by inhibiting conversion of angiotensin 1 to angiotensin 2
Reason Client Taking	For fluid overload caused by CHF	Common acquired pneumonia.	To treat hypertension	To prevent heart attack, stroke, and lowering cholesterol level.	To treat hypertension
Contraindications (2)	hypersensitivity to furosemide Anuria	Calcium-containing I.V solutions. Hypersensitivity to ceftriaxone.	Sick sinus syndrome. Acute heart failure	Active hepatic disease Hypersensitivity to atorvastatin	Client with diabetes. Client with history of angioedema
Side Effects/Adverse Reactions (2)	Arrhythmia Thromboembolism.	Loss of appetite Thrombocytosis	Confusion Arrhythmias	Cognitive impairment. Depression	Hemolytic anemia. Hyperglycemia.
Nursing Considerations (2)	Patient who is allergic to sulfonamides	Ask patient if any allergy reaction was	Monitor client for signs of	Atorvastatin is not used in patient	Monitor glucose level

	may also be allergic to furosemide. Weight the patient during treatment.	**ever experienced when given other antibiotics. Monitor patient closely for a hypersensitivity reactions.**	**poor glucose control in client with diabetes. Monitor patient with peripheral vascular disease for evidence of arterial insufficiency.**	**taking cyclosporine & Monitor diabetes patient because atorvastatin can affect blood glucose control.**	**Monitor serum potassium.**

Medications Reference (1) (APA):

Jones & Bartless Learning. (2020). 2020 Nurse's drug handbook (19th ed.). Burlington,

   MA.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**Client appears alert and oriented to person, place, and time, and current event. Well-groomed with no acute distress. Client speaks English with fluent speech and less discomfort.**
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	**Patient's skin is Pink** **Mist/ normal** **Warm to touch** **Normal turgor 2+** **No rashes noted** **some bruises noted in the body.** **Patient has wounds at the coccyx bone.** **18**
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**Head and neck symmetrical, normal cephalic.** **Ears are symmetrical and free of discharge, no hearing deficiencies and no hearing aids.** **Eyes are symmetrical, wears eyeglasses.** **Nose septum midline, no polyps, no drainage or bleeding.** **Patient has natural teeth, no dentures.**
CARDIOVASCULAR (2 points): **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:**	**Abnormal heart S3 sound and murmur heard** **Normal cardiac rhythm noted** **Pulses are 2+throught bilaterally** **Capillary refill less than 3 sec, no cyanosis or coldness. No pitting edema.**
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Normal rhythm, rate, and respiration is not labored bilateral, fine crackles noted in the lungs bilateral.**
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:**	**Regular** **Low sodium diet, restrict fluid** **5'11''** **82.3 Kg** **Bowel sounds present in all 4 quadrants**

Last BM:
Palpation: Pain, Mass etc.:
Inspection:
   Distention:
   Incisions:
   Scars:
   Drains:
   Wounds:
Ostomy: Y ☐   N ☒
Nasogastric: Y ☐   N ☒
   Size:
Feeding tubes/PEG tube   Y ☐   N ☒
   Type:
	Yesterday
	No pain but masses noted at the umbilical region.
	No rashes
	Distended abdomen
	Small visible <mark>incisions from hernia repair</mark>
	Unnoticeable scars
	No drains
	Has wounds at gluteal area, coccyx bone

GENITOURINARY (2 Points):
Color:
Character:
Quantity of urine:
Pain with urination: Y ☐   N ☒
Dialysis: Y ☐   N ☒
Inspection of genitals:
Catheter: Y ☐   N ☒
   Type:
   Size:
	Yellow
	Clear
	Patient is incontinent
	No pain reported during voiding.
	
	No abnormality noted on genitals.

MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk ☐**	**No edema, no neurovascular deficits noted** **Active ROM upper and lower extremities** **supportive devices (walker)** **Equal strength both upper and lower bilateral, negative human sign** **Patient is a fall risk and has a history of falls** **20** **Patient is in bed still and needs support to stand or walk.** **Needs assistive devices for gait at hospital or at home.**
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:**	**Patient is awake in bed but drowsy and fatigued. He is A&O x4. Patient speaks English well normal pace. Patient MAEW for current age and condition. Patient's strength is bilaterally equal. Does not he show signs of altered mental, he has no uncorrelated thoughts. Normal LOC.**

LOC:	
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	**Patient presents fatigued, he is cooperative and calm. Patient acknowledges past tobaccos use to deal with stress and used to drink beer for pleasure. Patient states he has a college degree. Patient states he is a Christian/ Baptist. Patient lives at home with his wife. Patient states he has good support from his family, especially from his wife and his grownup children. Patient is retied/ a veteran.**

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0235	**76**	**99/68**	**16**	**98.3**	**97 Room air**
0410	**78**	**99/70**	**18**	**98.1**	**98 room air**

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0235	**0/10**	**N/A**	**N/A**	**N/A**	**No intervention at this time.**
0410	**0/10**	**N/A**	**N/A**	**N/A**	**No intervention at this time.**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV:	20 G
Location of IV:	Left arm, median vein of the forearm.
Date on IV:	Saline locked.
Patency of IV:	Flushes easily
Signs of erythema, drainage, etc.:	No signs of erythema
IV dressing assessment:	Clean and dry, no bleeding.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)

360	**Patient is incontinent.**

Nursing Care

Summary of Care (2 points)

    Overview of care:

    Procedures/testing done:

    Complaints/Issues:

    Vital signs (stable/unstable):

    Tolerating diet, activity, etc.:

    Physician notifications:

    Future plans for patient:

Discharge Planning (2 points)

    Discharge location: home

    Home health needs (if applicable):

    Equipment needs (if applicable):

    Follow up plan: he follows with Cardiology at the VA

    Education needs:

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing	• Explain why the nursing		• How did the patient/family

diagnosis with "related to" and "as evidenced by" components	diagnosis was chosen		respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. **Impaired gas exchange related to fluid shifts into interstitial space as evidenced by SOB and crackles upon auscultation**	**This diagnosis was chosen because client exhibit signs of respiratory distress. Diuretics promotes normal volume by decreasing fluid accumulation and blood volume. Fluid overload reduces lung perfusion leading to hypoxemia.**	**1.Administer cardiac medications and diuretics as ordered, monitor oxygen saturation and ABG findings.** **2.Elevate the patient's HOB, assist the patient to assume semi-fowler's position**	**Patient is tolerating treatment and has an improved oxygenation as no abnormal heart sounds heard upon auscultation.**
2. **Decreased cardiac output related to increased preload and afterload and impaired contractility as evidenced by imaging result of mitral regurgitation and ejection fraction of 35-40%.**	**This diagnosis was chosen according to the diagnostic test results, which are warning sign of heart failure leading to low peripheral perfusion.**	**1. .Assess the patient's vital signs and characteristics of respiration at least every 4 hrs.** **2.restrict fluid intake and maintain cardiac diet.**	**Patient participates to the plan of care and is able to maintain adequate cardiac output.**
3 **Ineffective breathing pattern**		**1. Observe patient's breathing patterns for SOB, nasal**	**patient participates to the plan of care and ready for changes.**

related to fatigue and decreased lung expansion and pulmonary congestion secondary to CHF as evidence by SOB.	This diagnosis was chosen because patient is having hard time breathing when talking. These are warning signs of increasing respiratory distress that requires immediate attention.	flaring, prolonged expiratory phase, the use of accessory muscle. 2. Assess respiratory rate, use of accessory muscles, signs of air hunger, lung excursion, cyanosis, and significant changes in vital signs.	Patient' s respiration patters will be effective without use of accessory muscles and SOB.

Other References (APA):

Swearingen, P. L., & Wright, J. D. (2019). All-in-one nursing care planning resource:

     medical-surgical, pediatric, maternity, and psychiatric-mental health. St. Louis,

     MO: Elsevier.

Vera, M. Matt. (2020). Heart failure nursing care plans.

     https://nurseslabs.com/heart-failure-nursing-care-plans/5/.

Concept Map (20 Points):

Subjective Data

SOB worsen when lying down.
Chest pain.
Not able to perform any work.
Coughing with frothy sputum

Nursing Diagnosis/Outcomes

Impaired gas exchange
Outcome: patient is tolerating treatment and has an improved oxygenation as no abnormal heart sounds heard during auscultation.
Decreased cardiac output.
Outcomes: patient can maintain adequate cardiac output.
Ineffective breathing pattern
Outcome: Patient's respiration patterns will be effective without use of accessory muscle and SOB.

Nursing Interventions

Administer cardiac medication and diuretic as ordered, monitor oxygen saturation and ABG finding.
Elevated patient's HOB assist client to assume semi-fowler's position.
Assess client's vital signs and characteristics of respiration at least every 4 hrs.
Restrict fluid intake and maintain cardiac diet.
Observe patient's breathing patterns for SOB, nasal flaring, prolonged expiratory phase, the use of accessory muscle.
Assess respiratory rate, signs of hunger, lung excursion, cyanosis, and significant changes in vital signs.
Daily weight observe signs of fluid overload and edema.

Patient Information

A 71 years old, Caucasian male was admitted to the ED for shortness of breath and vomiting started the same day. Client has a history of CHF, COPD, DM, BPH, CAD, hypertension, and iron deficiency.

Objective Data

Echocardiogram
EKG
Chest X-ray
Shortness of breath
D-Dimer
BNP
PT
BUN
CO2
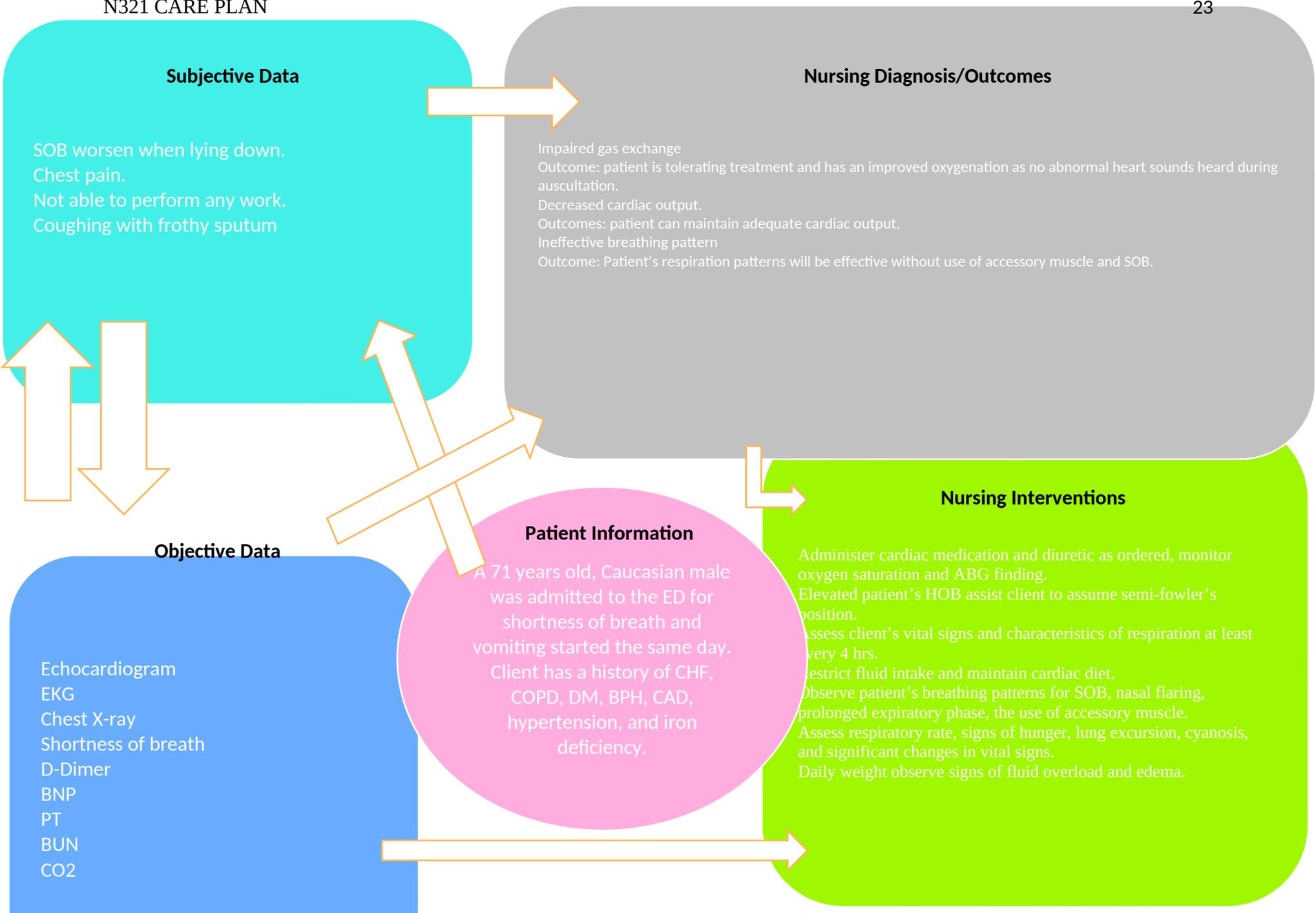
As blood flow out of the heart slows, blood returning to the heart through the veins backs up, causing congestion in the body's tissues. Often swelling (edema) results. Most often there's swelling in the legs and ankles, but it can happen in other parts of the body, too.

Sometimes fluid collects in the lungs and interferes with breathing, causing shortness of breath, especially when a person is lying down. This is called pulmonary edema and if left untreated can cause respiratory distress.

Congestive heart failure is a syndrome that can be caused by a variety of abnormalities, including pressure and volume overload, loss of muscle, primary muscle disease or excessive peripheral demands such as high output failure. In the usual form of heart failure, the heart muscle has reduced contractility. This produces a reduction in cardiac output, which then becomes inadequate to meet the peripheral demands of the body. The 4 primary determinants of left ventricular (LV) performance are generally altered as follows: (1) There is an intrinsic decrease in muscle contractility. (2) Preload or left atrial filling pressure is increased, resulting in pulmonary congestion and dyspnea. (3) Although systemic blood pressure is often reduced, there is an increase in systemic vascular resistance (afterload), which can further reduce cardiac output. (4) Heart rate is generally increased as part of a compensatory mechanism associated with an increase in sympathetic tone and circulating catecholamines. In patients with coronary disease, there is often an imbalance between myocardial oxygen supply and demand. An increase in heart size may be particularly deleterious by increasing wall tension because of the Laplace relation and increasing myocardial oxygen consumption.

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  - o A **clinical syndrome** in which the heart is unable to pump enough blood to meet the metabolic needs of the body
  - o Characterized by ventricular dysfunction that results in **low cardiac output**