

N311 Care Plan 3

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Lakeview College of Nursing

N311: Foundations of Professional Practice

Professor Smalley

October 17, 2023

Demographics (5 points)

Date of Admission 10/9/2023	Client Initials V.K	Age 82	Gender Male
Race/Ethnicity Caucasian	Occupation Retired	Marital Status Married	Allergies Prednisone- Rash Tramadol- Rash
Code Status Full Code	Height 5'10"	Weight 235lbs	

Medical History (5 Points)

Past Medical History: Client's past medical history includes Congestive Heart Failure, Chronic Obstructive Pulmonary Disorder, Arthritis, Asthma, Hypertension, Hypothyroidism, Atrial Fibrillation, Bilateral Leg Ulcer, Bronchitis, Dyslipidemia, Erectile Dysfunction, Hyperlipidemia, Dyslipidemia, Mitral Valve Regurgitation, Methicillin-resistant Staphylococcus aureus, Peripheral Edema, Obstructive Sleep Apnea, Urge Incontinence, and Venous Insufficiency.

Past Surgical History: Client's past surgical history includes an Abscess Drainage, a Cardioversion done 8/7/2023, a Right Knee Arthroplasty done 7/30/2023, with a revision of it done 8/8/2023, a Tonsillectomy, a Tumor Excision, and a Wrist Surgery.

Family History: The client's mother had a medical history of Dementia and Heart Disease. The client's father also had a medical history of Heart Disease as well as a Stroke, and Heart Attack. The client's sister has a history of Diabetes and Lung and Brain Cancer and his brother also has a history of an unspecified heart condition. The client's daughter has a history of Diabetes. The client himself stated, "My family is infected and we all might die of it." The client was particularly concerned with a family history of cancer.

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

The client was a former cigarette smoker. He smoked a quarter of a pack a day for 15 years but has not smoked since 1978. The client currently does not drink but used to drink about 1 drink a week socially. The client denies use of drugs.

Admission Assessment

Chief Complaint (2 points): The client came to the emergency room 10/9/2023 complaining of shortness of breath. He stated that, “I have a form of heart disease that affects how well I can breathe oxygen.”

History of Present Illness – OLD CARTS (10 points):

Client V.K presented to the emergency room on 10/9/2023 with severe shortness of breath. The client was alert and responsive but not well-orientated to his situation; therefore, it was impossible to determine precisely when his shortness of breath began. This client has a lengthy history of chronic Congestive Heart Failure and Respiratory Failure with numerous bouts of exacerbation of related symptoms that have led to hospital stays. The client was able to verbalize that the source of his discomfort was in his chest and throat. He described the feeling as a “tightness” in his chest and throat and felt like there were “bands across the chest.” The client stated that the tight feeling in his chest is made worse when he sneezes or coughs and that “holding in sneezes and rest” helps to alleviate his symptoms. The client has sought treatment for shortness of breath and other symptoms related to Congestive Heart Failure and Chronic Obstructive Pulmonary Disorder in the past and has been in and out of the hospital for it numerous times within the last few years.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): V.K's primary medical diagnosis is Congestive Heart Failure.

Secondary Diagnosis (if applicable): V.K presented to the emergency room with shortness of breath and hypoxia in the 80s despite use of 3 liters of oxygen for chronic hypoxia respiratory failure. V.K also has a medical diagnosis of Chronic Obstructive Pulmonary Disorder.

Pathophysiology

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

Client V.K has a primary medical diagnosis of Congestive Heart Failure. Heart failure can be categorized in many ways to describe its type, including whether it is acute or chronic, systolic, or diastolic, left-side or right-sided, and more (Capriotti, 2020). However, as heart failure progresses, these distinctions become less apparent, and heart failure tends to present the same (Capriotti, 2020). Because the heart is one muscle, the changes that begin and damage one area of the heart in heart failure eventually causes further weakening and damage to other parts of the heart as it tries to compensate (Capriotti, 2020). Heart failure can occur suddenly from a massive myocardial infarction or more gradually over time from things such as coronary artery disease, hypertension, arrhythmias, and stenotic or insufficient heart valves (Mayo Foundation, 2023). Other risk factors for developing heart failure include obesity, diabetes, a family history of heart disease, aging, excessive alcohol use, smoking, viral infections, and congenital conditions (Mayo Foundation, 2023). Heart failure can develop in various ways and as a combination of many factors, however, it typically begins in the left ventricle, the heart's primary pumping chamber (Mayo Foundation, 2023). Left-sided heart failure primarily develops

over time due to over-activation of the Renin-Angiotensin-Aldosterone system (RAAS) (Capriotti, 2020). One of the primary end products of the RAAS is Angiotensin II. Angiotensin II is a strong vasoconstrictor that has vast systemic effects on the body, including increasing blood pressure and peripheral arterial vasoconstriction, which in turn increases resistance against the left ventricle (Capriotti, 2020). These increases weaken the left ventricle over time (Capriotti, 2020). Angiotensin II also causes the release of aldosterone, which causes the kidneys to retain sodium and water, which also increases blood volume and blood pressure (Capriotti, 2020). As the left ventricle is weakened from the increased blood volume, pressure, and resistance it must overcome, it cannot provide sufficient renal perfusion, which again promotes the RAAS in a positive feedback loop (Capriotti, 2020). Additionally, as the left ventricle weakens and cannot sufficiently push blood out to the rest of the body, this causes backflow and backup of blood in the atrium and increased hydrostatic pressure at the pulmonary capillaries. This increase in hydrostatic pressure causes fluid to be pushed into interstitial spaces, resulting in pulmonary edema and a hindrance of oxygen diffusion into the blood (Capriotti, 2020). Over time, the progressive weakening that occurs in left-sided failure can also lead to right-sided heart failure (Capriotti, 2020).

Poor blood circulation and increased hydrostatic pressure at the pulmonary capillaries due to left-sided heart failure causes a person to exhibit various signs and symptoms (Capriotti, 2020). Poor blood circulation leads to hypoxia and cyanosis of the extremities, confusion, and fatigue (Capriotti, 2020). The backup of blood in the pulmonary capillaries causes dyspnea, orthopnea, paroxysmal nocturnal dyspnea, tachypnea, diminished pulses, cough, and crackles can often be heard in the lungs (Capriotti, 2020). As left-sided heart failure progresses to affect

the right side of the heart, additional signs and symptoms may be observed, such as jugular vein distention, edema, ascites, tachycardia, and an enlarged liver and spleen (Capriotti, 2020).

The Framingham Criteria for Congestive Heart Failure is used to officially diagnose someone with heart failure (Capriotti, 2020). The person must present with two or more of the minor criteria and at least one of the major criteria to be considered as having heart disease (Capriotti, 2020). Examples of minor criteria include tachycardia of over 120bpm, dyspnea on exertion, and peripheral edema (Capriotti, 2020). Examples of major criteria are jugular vein distention, pulmonary crackles, and auscultation of the S3 sound (Capriotti, 2020). Further tests are done to diagnose heart failure, including assessing Brain Natriuretic Peptide (BNP) levels and serum electrolyte levels, where a BNP greater than 500 indicates heart failure (Capriotti, 2020). Chest X-rays are also often performed and can reveal cardiomegaly and pulmonary opacities. Lastly, electrocardiograms, echocardiograms, and cardiac catheterization can be performed to assess heart rhythm and structures (Capriotti, 2020).

Pathophysiology References (2) (APA):

Capriotti, T. (2020). Chapter 17: Heart Failure. In *Davis Advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed., pp. 411-422). F.A. Davis.

Mayo Foundation for Medical Education and Research. (2023, April 20). *Heart failure*. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/heart-failure/symptoms-causes/syc-20373142#:~:text=Coronary%20artery%20disease%20is%20the,can%20lead%20to%20heart%20attack>.

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	4.4-5.8 10(6)/mCL	3.37	3.15	A low RBC count can be the result of anemia, which can often be associated with heart failure as is the case with this client (U.S. National Library of Medicine, 2021c).
Hgb	13.0-16.5 g/dL	9.6	9.1	A low hemoglobin count could also be due to anemia, which again can be associated with heart failure (U.S. National Library of Medicine, 2022c).
Hct	38.0%-50.0%	30.5%	28.2%	A low hematocrit count is associated with anemia and anemia can be associated with heart failure. A low hematocrit count can also be associated with feelings of fatigue and shortness of breath, as was the case with this client (U.S. National Library of Medicine, 2022d).
Platelets	140-44 10(3)/mCL	135	161	This client had a low platelet count. Symptoms of low platelets can include having purpura on the skin due to bleeding underneath (U.S. National Library of Medicine, 2021a). This client had purpura on his ankles and has a history of chronic venous insufficiency.
WBC	4-12 10(3)/mCL	7.4	8.0	
Neutrophils	40.0%-68.0%	68.4%	66.7%	A high neutrophil percentage can indicate a new infection (U.S. National Library of Medicine, 2022a). The nurse mentioned that this client may be dealing with a new infection in his right knee related to an arthroplasty he received 8/8/23.
Lymphocytes	19.0%-49%	17.5%	19.6%	A low percentage of lymphocytes could also be related to this client's possible knee infection or it could be an effect of one of the medications he is on (U.S. National Library of Medicine, 2022a).

Monocytes	3.0%-13%	11.6	10.6	
Eosinophils	0.0%-8.0%	1.7	2.3	
Bands	0-5%	N/A	N/A	

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	139	140	
K+	3.5-5.1 mmol/L	5.4	5.0	When potassium levels are increased an individual will often experience cardiac arrhythmias as is the case with this client (U.S. National Library of Medicine, 2022g).
Cl-	98-107 mmol/L	100	100	
CO2	22-30 mmol/L	30	32	An increase in CO2 can be due to ineffective gas exchange, which is associated with lung diseases like COPD, which this client has (U.S. National Library of Medicine, 2022f).
Glucose	70-99 mg/dL	93	96	
BUN	8-26 mg/dL	69	72	This client has an elevated BUN level likely as a result of his heart disease (U.S. National Library of Medicine, 2022b). Over time, heart disease can lead to poor kidney function and higher BUN levels. Swelling of the lower extremities can also indicate elevated BUN levels, as was the case with this client.
Creatinine	0.7-1.3 mg/dL	1.94	1.98	High creatinine levels are often associated with heart failure and kidney failure as is the case with this client (U.S. National Library of Medicine, 2020).

Albumin	3.5-5.0 g/dL	3.0	3.1	Low blood albumin can be a sign of kidney or liver disease and result in symptoms such as shortness of breath and swelling in the ankles, which this client presented with (U.S. National Library of Medicine, 2022e).
Calcium	8.7-10.5 mg/dL	10.3	10.3	
Mag	1.7-2.2 mg/dL	N/A	N/A	
Phosphate	3.0-4.5 mg/dL	N/A	N/A	
Bilirubin	0.2-1.2 mg/dL	0.7	1.0	
Alk Phos	40-150 U/L	113	116	

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	Clear, Yellow	Clear, Yellow	N/A	
pH	5.0-9.0	5.0	N/A	
Specific Gravity	1.003-1.030	1.010	N/A	
Glucose	Negative	Negative	N/A	
Protein	Negative	Trace	N/A	Larger amounts of protein in the urine are often due to heart failure and kidney problems as seen with this client (U.S. National Library of Medicine, 2019).
Ketones	Negative	Negative	N/A	
WBC	0-5/hpf	0-5	N/A	
RBC	0-2/hpf	3-5/hpf	N/A	A trace amount of RBCs in the urine can indicate kidney inflammation or disease which is likely the case with this client due

				to his heart failure (U.S. National Library of Medicine, 2021b).
Leukoesterase	Negative	Negative	N/A	

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	Moderate	N/A	A moderate test result indicates that some bacteria was found in the urine, this could indicate a urinary tract infection (U.S. National Library of Medicine, 2022h). Because this client is often incontinent, they would be more likely to develop a UTI.
Blood Culture	Negative	N/A	N/A	
Sputum Culture	Negative	N/A	N/A	
Stool Culture	Negative	N/A	N/A	

Lab Correlations Reference (1) (APA):

U.S. National Library of Medicine. (2022e, June 7). *Albumin Blood Test*. MedlinePlus.

<https://medlineplus.gov/lab-tests/albumin-blood-test/>

U.S. National Library of Medicine. (2022a, April 1). *Blood Differential*. MedlinePlus.

<https://medlineplus.gov/lab-tests/blood-differential/>

U.S. National Library of Medicine. (2022b, April 5). *BUN (Blood Urea Nitrogen)*. MedlinePlus.

<https://medlineplus.gov/lab-tests/bun-blood-urea-nitrogen/>

U.S. National Library of Medicine. (2022f, August 3). *Carbon dioxide (CO₂) in Blood*. MedlinePlus. <https://medlineplus.gov/lab-tests/carbon-dioxide-co2-in-blood>

U.S. National Library of Medicine. (2020, December 22). *Creatinine Test*. MedlinePlus. <https://medlineplus.gov/lab-tests/creatinine-test/>

U.S. National Library of Medicine. (2022d, May 16). *Hematocrit Test* . MedlinePlus. <https://medlineplus.gov/lab-tests/hematocrit-test/>

U.S. National Library of Medicine. (2022c, April 5). *Hemoglobin Test*. MedlinePlus. <https://medlineplus.gov/lab-tests/hemoglobin-test/>

U.S. National Library of Medicine. (2021a, February 18). *Platelet Tests*. MedlinePlus. <https://medlineplus.gov/lab-tests/platelet-tests/>

U.S. National Library of Medicine. (2022g, August 3). *Potassium Blood Test*. MedlinePlus. <https://medlineplus.gov/lab-tests/potassium-blood-test>

U.S. National Library of Medicine. (2021b, July 19). *RBC urine test*. MedlinePlus. <https://medlineplus.gov/ency/article/003582.htm>

U.S. National Library of Medicine. (2021c, October 4). *Red Blood Cell (RBC) Count*. MedlinePlus. <https://medlineplus.gov/lab-tests/red-blood-cell-rbc-count/>

U.S. National Library of Medicine. (2022h, October 20). *Urine culture*. MedlinePlus. <https://medlineplus.gov/ency/article/003751.htm>

U.S. National Library of Medicine. (2019, July 19). *Urine protein dipstick test*. MedlinePlus.
<https://medlineplus.gov/ency/article/003580.htm>

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

An Electrocardiogram (ECG) was done on 10/9/2023 and the study showed atrial fibrillation with premature ventricular or aberrantly conducted complexes. An ECG is a test that shows the electrical activity of the heart and can show how fast the heart is beating, how hard it is beating, and the rhythm and timing of heart beats (U.S. National Library of Medicine, 2023). It is used to help diagnose heart disease and in the case of client, V.K, it is useful for keeping track of his irregular heart rhythm, atrial fibrillation.

A single view chest x-ray was performed on 10/10/2023 and revealed marked pulmonary vascular congestion, cardiomegaly, calcification of the aortic arch, and arthritic changes of both shoulders. X-rays use electromagnetic waves, a type of radiation, to create pictures of the inside of the body (U.S. National Library of Medicine, 2022). A chest x-ray allows doctors to visualize the chest, lungs, heart, and other surrounding structures such as the ribs (U.S. National Library of Medicine, 2022). Chest x-rays are often performed when a person complains of shortness of breath, which was the case for client, V.K.

Diagnostic Imaging Reference (1) (APA):

U.S. National Library of Medicine. (2022, July 31). *Chest X-ray*. MedlinePlus.
<https://medlineplus.gov/ency/article/003804.htm>

U.S. National Library of Medicine. (2023, February 28). *Electrocardiogram*. MedlinePlus.

<https://medlineplus.gov/lab-tests/electrocardiogram/>

Assessment

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

General, Psychosocial/Cultural, and ONE focused assessment specific to the client is required.

The student and instructor may complete these assessments together.

<p>GENERAL:</p> <p>Alertness: Alert and orientated x 3</p> <p>Orientation: Oriented to person, place, and time, but not well oriented to situation and has some confusion.</p> <p>Distress: No distress</p> <p>Overall appearance: well-groomed but looks fatigued.</p>	<p>The client is alert and oriented to person, place, and time, but is not well oriented to his situation. The client is not in distress but has some confusion. He is well-groomed but appears fatigued.</p>
<p>INTEGUMENTARY:</p> <p>Skin color:</p> <p>Character:</p> <p>Temperature:</p> <p>Turgor:</p> <p>Rashes:</p> <p>Bruises:</p> <p>Wounds: .</p> <p>Braden Score: High, 12</p> <p>Drains present: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>Type:</p>	
<p>HEENT:</p> <p>Head/Neck:</p>	

<p>Ears:</p> <p>Eyes:</p> <p>Nose:</p> <p>Teeth:</p>	<p>.</p>
<p>CARDIOVASCULAR:</p> <p>Heart sounds: Clear S1 and S2 at all points</p> <p>S1, S2, S3, S4, murmur etc.</p> <p>Cardiac rhythm (if applicable): Atrial fibrillation.</p> <p>Peripheral Pulses: even and 2+ bilaterally except for left posterior tibial pulse was 1+</p> <p>Capillary refill: 2 seconds bilaterally on the hands, left foot was 2 seconds and right foot was 3 seconds.</p> <p>Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input checked="" type="checkbox"/> N <input type="checkbox"/></p> <p>Location of Edema: Bilateral edema below the knees. Right foot had +4 pitting edema and left foot had +2 pitting edema.</p>	<p>There are no signs of jugular vein distention bilaterally. S1 and S2 sounds were clear at all locations. No signs of murmurs, gallops, or rubs and no S3 or S4 sounds present. The apical pulse was palpable at the 5th intercostal space and left midclavicular line. According to EKG, the client's cardiac rhythm is atrial fibrillation. Client's peripheral pulses were even and 2+ bilaterally, except for the left posterior pulse which was 1+. Capillary refill was also 2 second bilaterally at the fingers and 2 seconds on the left foot, but 3 seconds on the right foot. Edema was present bilaterally below the knees with +4 pitting on the right foot and +2 pitting on the left foot. Overall, the extremities were warm and dry. There was some brownish discoloration at the right ankle.</p>
<p>RESPIRATORY:</p> <p>Accessory muscle use: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>Breath Sounds: Location, character</p>	<p>.</p>
<p>GASTROINTESTINAL:</p> <p>Diet at home:</p> <p>Current Diet</p> <p>Height:</p> <p>Weight:</p> <p>Auscultation Bowel sounds:</p> <p>Last BM:</p>	<p>.</p>

<p>Palpation: Pain, Mass etc.:</p> <p>Inspection:</p> <p> Distention:</p> <p> Incisions:</p> <p> Scars:</p> <p> Drains:</p> <p> Wounds:</p> <p>Ostomy: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>Nasogastric: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p> Size:</p> <p>Feeding tubes/PEG tube Y <input type="checkbox"/> N <input type="checkbox"/></p> <p> Type:</p>	
<p>GENITOURINARY:</p> <p>Color:</p> <p>Character:</p> <p>Quantity of urine:</p> <p>Pain with urination: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>Dialysis: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>Inspection of genitals:</p> <p>Catheter: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p> Type:</p> <p> Size:</p>	
<p>MUSCULOSKELETAL:</p> <p>Neurovascular status:</p> <p>ROM:</p> <p>Supportive devices:</p> <p>Strength:</p> <p>ADL Assistance: Y <input type="checkbox"/> N <input type="checkbox"/></p>	

<p>Fall Risk: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>Fall Score: High, 92</p> <p>Activity/Mobility Status:</p> <p>Independent (up ad lib) <input type="checkbox"/></p> <p>Needs assistance with equipment <input type="checkbox"/></p> <p>Needs support to stand and walk <input type="checkbox"/></p>	
<p>NEUROLOGICAL:</p> <p>MAEW: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>PERLA: Y <input type="checkbox"/> N <input type="checkbox"/></p> <p>Strength Equal: Y <input type="checkbox"/> N <input type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/></p> <p>Orientation:</p> <p>Mental Status:</p> <p>Speech:</p> <p>Sensory:</p> <p>LOC:</p>	
<p>PSYCHOSOCIAL/CULTURAL:</p> <p>Coping method(s):</p> <p>Developmental level:</p> <p>Religion & what it means to pt.:</p> <p>Personal/Family Data (Think about home environment, family structure, and available family support):</p>	<p>The client lives in a nursing home and is close with his two children, though they live far away, so he is not able to see them often. He states to have been happily married for 50 some years. The client mentioned that he was raised Catholic and that those beliefs are important to him. The client's developmental level is appropriate for his age; his speech is comprehensible, but due to his mild confusion, he has difficulty staying on topic. The client appears to be struggling some with his mental health. He mentioned "I want to get better but am unsure the right direction to go to do that."</p>

Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
11:15	75bpm	102/49	30bpm	97.5°F	95%

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Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
09:35	Numeric Rating Pain Scale	Chest	0	Client rated his pain as 0 but would grimace if re-positioned.	Head of bed was elevated to facilitate breathing and pillows were used to help comfortably position the client.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
240mL of water 240mL apple juice 120mL of sherbert 25% of lunch (meatloaf, carrots, and chips) Total Fluid intake: 600mL	Incontinent of urine x2 Incontinent BM x1 (brown, soft)

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis

Nursing Diagnosis	Rationale	Interventions	Outcome Goal	Evaluation
<ul style="list-style-type: none"> • Include full 	<ul style="list-style-type: none"> • Explain why the 	(2 per dx)		<ul style="list-style-type: none"> • How did the

<p>nursing diagnosis with “related to” and “as evidenced by” components</p> <ul style="list-style-type: none"> Listed in order by priority – highest priority to lowest priority pertinent to this client 	<p>nursing diagnosis was chosen</p>		<p>(1 per dx)</p>	<p>client/family respond to the nurse’s actions?</p> <ul style="list-style-type: none"> Client response, status of goals and outcomes, modifications to plan.
<p>1. Impaired gas exchange related to ineffective breathing pattern as evidenced by arrival to emergency room with hypoxemia and tachypnea demonstrated by an O₂ saturation in the 80s and respirations at 30 breaths per minute (Phelps, 2023).</p>	<p>This diagnosis was chosen because respirations of 30 breaths per minute and an O₂ saturation in the 80s requires immediate intervention. The client suffers from chronic hypoxia related to heart failure and poor cardiac tissue perfusion. His impaired gas exchange is also related to his secondary diagnosis of COPD.</p>	<p>1. Administer and monitor oxygen therapy as ordered to enhance oxygenation and detect signs of decompensation (Phelps, 2023).</p> <p>2. Monitor vital signs and heart rhythm at least every 4 hours to detect tachycardia and tachypnea which could indicate hypoxemia (Phelps, 2023).</p>	<p>1. Client will maintain adequate gas exchange by maintaining an O₂ saturation of 93% or above, even upon exertion, before discharge (Phelps, 2023).</p>	<p>The client responded well to oxygen therapy and was compliant with frequent vital checks. He was able to maintain an O₂ saturation of 95% even upon exertion and his respirations lowered to 18 breaths per minute. The client is still tired easily but is able to recognize when he needs to take a break. O₂ saturation should still be monitored frequently.</p>
<p>2. Risk for imbalanced fluid volume related to congestive heart failure and deviations</p>	<p>This diagnosis was chosen because congestive heart failure can cause fluid overload and imbalances within the body (Phelps, 2023). Such fluid</p>	<p>1. Closely monitor fluid intake and output to monitor for signs of fluid overload (Phelps,</p>	<p>1. The client will remain hemodynamically stable and not experience electrolyte imbalances</p>	<p>The client responded well to the nursing interventions and was hemodynamically stable with balanced</p>

<p>affecting fluid elimination as evidenced by increased BUN lab values, decreased blood albumin level, and pitting edema bilaterally below the knee (Phelps, 2023).</p>	<p>imbalances can be reflected in lab values like BUN level and blood albumin level. The client also has a history of chronic venous insufficiency and this combined with elevated BUN and decreased blood albumin led to moderate-severe pitting edema in both legs below the knee, which is an obvious sign of fluid overload in those areas.</p>	<p>2023). 2. Collect and evaluate serum electrolyte values to develop an understanding of and address the possible reasons for fluid imbalance (Phelps, 2023).</p>	<p>by the time of discharge (Phelps, 2023).</p>	<p>electrolytes upon discharge. The client was able to verbalize an understanding of the need to monitor fluid and sodium intake, however seemed reluctant to actually do so. Client could benefit from support from friends and family to reinforce teaching of fluid balance.</p>
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Other References (APA):

Phelps, L. L. (2023). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

- Shortness of breath.
- “Tightness” in chest and throat and feels like there are “bands across the chest.”
- Pain rated 0/10.
- Client stated rest helps to alleviate symptoms.

Nursing Diagnosis/Outcomes

- Impaired gas exchange related to ineffective breathing pattern as evidenced by arrival to emergency room with hypoxemia and tachypnea demonstrated by an O₂ saturation in the 80s and respirations at 30 breaths per minute (Phelps, 2023).
 - Client will maintain adequate gas exchange by maintaining an O₂ saturation of 93% or above, even upon exertion, before discharge (Phelps, 2023).
- Risk for imbalanced fluid volume related to congestive heart failure and deviations affecting fluid elimination as evidenced by increased BUN lab values, decreased blood albumin level, and pitting edema bilaterally below the knee (Phelps, 2023).
 - The client will remain hemodynamically stable and not experience electrolyte imbalances by the time of discharge (Phelps, 2023).

Nursing Interventions

- Administer and monitor oxygen therapy as ordered to enhance oxygenation and detect signs of decompensation (Phelps, 2023).
- Monitor vital signs and heart rhythm at least every 4 hours to detect tachycardia and tachypnea which could indicate hypoxemia (Phelps, 2023).
- Closely monitor fluid intake and output to monitor for signs of fluid overload (Phelps, 2023).
- Collect and evaluate serum electrolyte values to develop an understanding of and address the possible reasons for fluid imbalance (Phelps, 2023).

Client Information

- 82 year old, Caucasian male
- Presented to ER with shortness of breath and hypoxemia.
- Medical diagnosis of congestive heart failure and chronic obstructive pulmonary disorder.
- History of atrial fibrillation and venous insufficiency.
- Several previous hospital stays
- Family history of heart disease.

Objective Data

- Vitals:
 - Pulse: 75 bpm
 - Respirations: 30 bpm
 - BP: 102/49
 - Temp: 97.5°F
 - O₂ Sat: 95%
- Elevated K⁺ level (5.4 mmol/L)
- Elevated CO₂ level (32 mmol/L)
- Elevated BUN level (72 mg/dL)
- Elevated Creatinine level (1.98 mg/dL)
- Decreased Albumin level (3.1 g/dL)
- ECG showed atrial fibrillation
- Chest x-ray showed pulmonary vascular congestion, cardiomegaly, and calcification of aortic arch.
- Pitting edema in feet.

