N431 Care Plan #

Lakeview College of Nursing

Name

Demographics (3 points)

Date of Admission 2/18/2022	Client Initials L.W	Age 80 years old	Gender Male
Race/Ethnicity White	Occupation Unemployed	Marital Status Widow	Allergies Actos
Code Status DNAR	Height 5'11	Weight 252 lbs.	

Medical History (5 Points)

Past Medical History: CAD, CVA, Diabetes type II, Heart disease, Heart failure, severe aortic valve stenosis, hypercholesterolemia, hyperlipidemia, myocardial infarction, sleep, apnea, renal failure

Past Surgical History: Blepharoplasty, cardiac cauterization, carpal tunnel release, colonoscopy

Family History: Diabetes-father, stroke-other, Heart attack- father, hypertension- other

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Never smoked or chew tobacco, occasional drinker

Assistive Devices: Cane

Living Situation: Patient lives alone

Education Level: graduated high school

Admission Assessment

Chief Complaint (2 points): Shortness of breath

History of Present Illness – OLD CARTS (10 points): Patient had sudden onset of shortness of breath and went to the hospital for acute chronic CHF exacerbation. Patient stated

nothing would help with the shortness of breath and reported having some chest pain. Reports compliance with medications, denies any changes in his diet. He has been compliant with his fluid restriction. Shortness breath has lasted the patient three days. No reliving factors but patient has a history of strokes and MIs. Patient describe the shortness of breath as "tightening in chest."

Primary Diagnosis

Primary Diagnosis on Admission (2 points):

Congestive heart failure

Secondary Diagnosis (if applicable): Acute MI

Pathophysiology of the Disease, APA format (20 points): Congestive heart failure works at the pathophysiology level as the heart attempts to adapt by several compensatory mechanisms to try and maintain cardiac output and meet systemic demands. The increased wall stress causes the myocardium to attempt to compensate via eccentric remodeling, which makes the loading conditions and wall stress even worse (Malik et al., 2021). A decrease in cardiac output stimulates the neuroendocrine system with a release of epinephrine, norepinephrine, endothelin-1, and vasopressin (Malik et al., 2021). They cause vasoconstriction leading to inflated afterload. There is an upsurge in cyclic adenosine monophosphate (cAMP), which causes an increase in cytosolic calcium in the myocytes. This increases myocardial contractility, and further stops myocardial relaxation (Malik et al., 2021). Afterload and myocardial contractility with impaired myocardial relaxation leads to more myocardial oxygen demand. This paradoxical need for increased cardiac output to fulfill myocardial demand eventually leads to myocardial cell death and

apoptosis. As apoptosis continues, diminished cardiac output with raised demand leads to a perpetuating cycle of increased neurohumoral stimulation and maladaptive hemodynamic and myocardial responses (Malik et al., 2021). A decrease in cardiac output also stimulates the renin-angiotensin-aldosterone system (RAAS), leading to increased salt and water retention, along with increased vasoconstriction. This additionally fuels the maladaptive mechanisms in the heart and causes progressive heart failure. In addition to this, the RAAS system releases angiotensin II, which has been demonstrated to increase myocardial cellular hypertrophy and interstitial fibrosis. This maladaptive function of angiotensin II has been shown to increase myocardial remodeling (Malik et al., 2021). A physical examination will also show how CHF will affect other body parts with its signs and symptoms. The most common finding in people with CHF is dyspnea. Other findings that are common include chest pain, palpitations, anorexia, and fatigue. Some patients may present with a recumbent cough which may be due to orthopnea (Malik et al., 2021). The classical finding of pulmonary rales translates to heart failure of moderate to severe intensity. Wheezing may be present in acute decompensated heart failure. As the severity of pulmonary congestion increases, frothy and blood-tinged sputum may be seen. Jugular venous distention is another classical finding which must be assessed in all patients with HF. A paradoxical increase in jugular venous distention with respiration (Kussmaul sign) may be seen. In patients with elevated left-sided filling pressures, hepatojugular reflux will be seen. Peripheral edema is present in severe heart failure and will be seen if a substantial degree of volume overload is present (Malik et al., 2021). Renal function should be assessed as a rough guide to the patient's intravascular volume status and renal perfusion. A urinalysis is helpful in the assessment of the patient's volume status. Electrolyte assessment

and the correction of electrolyte disturbances such as hypokalemia, hyperkalemia, and hypomagnesemia are critical in those patients treated with diuretics. Hyponatremia (due to poor stimulation of the baroreceptors and appropriate ADH release and free water retention) is associated with a poor prognosis. A complete blood count should be obtained to assess for the presence of anemia which may exacerbate heart failure, and to assess the patient's coagulation status, which may be impaired due to hepatic congestion. Natriuretic peptides: BNP or NT-proBNP are important in diagnosing heart failure. An electrocardiogram should also be performed in all heart failure patients; Troponin level- if there is concern that myocardial injury is the cause for symptoms (King, 2021). The primary combination therapy for CHF includes diuretics, a renin-angiotensin system inhibitor (such as an angiotensin receptor neprilysin inhibitor (ARNI), angiotensin-converting enzyme (ACE) inhibitor, or angiotensin II receptor blockers (ARB)), and a beta-blocker. The combination of hydralazine and nitrate is an alternative to an angiotensin system blocker for primary therapy if ACE inhibitor, ARNI, and ARB therapies are contraindicated. Digoxin may be considered in symptomatic patients in sinus rhythm despite adequate goal-directed therapy to reduce the all-cause rate of hospitalizations, but its role is limited (Malik et al., 2021). The patient had to get an x-ray on his chest in AP or PA only. The patient came in because of shortness of breath. Upon physical examination, the patient had 1+ edema in his legs.

Pathophysiology References (2) (APA):

Malik, A., Brito, D., Vaquar, S., & Chhabra, lovley. (2021, November 2). *Congestive Heart Failure - StatPearls - NCBI Bookshelf*. National Center for Biotechnology Information. https://www.ncbi.nlm.nih.gov/books/NBK430873/

King, K. (2021, September 21). *Congestive Heart Failure And Pulmonary Edema Article*. StatPearls; StatPearls Publishing. https://www.statpearls.com/ArticleLibrary/viewarticle/19880

Laboratory Data (15 points)

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	**4.10-5.70 10^6 UL**	**3.56**	**N/A**	**The patient is diagnosed with CHF which causes anemia, making the RBC lower (Capriotti,2020).**
Hgb	**12.0-18.0 g/dL**	**11.0**	**N/A**	**Hemoglobin is a major substance in RBC, patients who has anemia causes Hgb to be low (Capriotti,2020).**
Hct	**37.0-51%**	**33.5**	**N/A**	**HCT is low due to an insufficient supply healthy red blood cells which is anemia (Capriotti,2020).**
Platelets	**140-400 10^uL**	**191**	**N/A**	
WBC	**4.00-11.00 10^3/ uL**	**8.66**	**N/A**	
Neutrophils	**1.60-7.70 10^3/ uL**	**6.56**	**N/A**	
Lymphocytes	**%**	**13,3**	**N/A**	
Monocytes	**%**	**8.3**	**N/A**	
Eosinophils	**%**	**1.5**	**N/A**	
Bands	**N/A**	**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	137	136	
K+	3.5-5.1 mmol/L	4.4	3.6	
Cl-	98-107 mmol/L	93	88	Patient is on laxatives which cause a decrease in chloride (Capriotti,2020).
CO2	22.0-29.0 mmol/L	27.0	35.0	Patient has dyspnea which can cause the patient not to expel all of the CO2 (Capriotti,2020).
Glucose	74-100 mg/dL	320	94	Patient has diabetes which might have been going uncontrolled at the time of hospital admission
BUN	8-26 mg/dL	68	62	Patient has renal failure cause BUN to elevated (Capriotti,2020).
Creatinine	0.53-1.30 mg/dL	2.45	2.14	Patient has renal failure causes creatinine to decreased (Capriotti,2020).
Albumin	3.4-4.8 g/dL	3.4	N/A	
Calcium	8.9-10.6 mg/dL	9.7	8.9	
Mag	1.6-2.6 mg/DL	N/A	2.2	
Phosphate	N/A	N/A	N/A	
Bilirubin	N/A	N/A	N/A	
Alk Phos	40-130 u/L	98	N/A	
AST	5-34 u/L	21	N/A	
ALT	0-55 u/L	14	N/A	
Amylase	N/A	N/A	N/A	
Lipase	N/A	N/A	N/A	

Lactic Acid	**N/A**	**N/A**	**N/A**	
Troponin	**0.0-0.03**	**1.08**	**N/A**	**Patient had a myocardial infraction which causes troponin increases (Capriotti,2020).**
CK-MB	**N/A**	**N/A**	**N/A**	
Total CK	**N/A**	**N/A**	**N/A**	

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	**N/A**	**N/A**	**N/A**	
PT	**N/A**	**N/A**	**N/A**	
PTT	**27.4-35.9 sec**	**35.4**	**N/A**	
D-Dimer	**N/A**	**N/A**	**N/A**	
BNP	**0-100 pg/ml**	**86.9**	**N/A**	
HDL	**N/A**	**N/A**	**N/A**	
LDL	**N/A**	**N/A**	**N/A**	
Cholesterol	**N/A**	**N/A**	**N/A**	
Triglycerides	**N/A**	**N/A**	**N/A**	
Hgb A1c	**N/A**	**N/A**	**N/A**	
TSH	**N/A**	**N/A**	**N/A**	

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	**N/A**	**N/A**	**N/A**	
pH	**N/A**	**N/A**	**N/A**	
Specific Gravity	**N/A**	**N/A**	**N/A**	
Glucose	**N/A**	**N/A**	**N/A**	
Protein	**N/A**	**N/A**	**N/A**	
Ketones	**N/A**	**N/A**	**N/A**	
WBC	**N/A**	**N/A**	**N/A**	
RBC	**N/A**	**N/A**	**N/A**	
Leukoesterase	**N/A**	**N/A**	**N/A**	

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	**N/A**	**N/A**	**N/A**	
PaO2	**N/A**	**N/A**	**N/A**	
PaCO2	**N/A**	**N/A**	**N/A**	
HCO3	**N/A**	**N/A**	**N/A**	

SaO2	**N/A**	**N/A**	**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	**N/A**	**N/A**	**N/A**	
Blood Culture	**N/A**	**N/A**	**N/A**	
Sputum Culture	**N/A**	**N/A**	**N/A**	
Stool Culture	**N/A**	**N/A**	**N/A**	

Lab Correlations Reference (1) (APA):

Capriotti, T. (2020). *Davis Advantage for Pathophysiology*. F.A Davis Company.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Patient had a chest x ray that showed increased left pleural effusion, nuclear medicine lung scan- showed worsening bibasilar pleural fluid

Diagnostic Test Correlation (5 points): Chest x-rays can show changes or problems in your lungs that stem from heart problems. Fluid in your lungs can be a result of congestive heart failure (Rev,2018). Nuclear medicine lung scan is used to detect or rule out a pulmonary embolus (Rev,2018).

Diagnostic Test Reference (1) (APA):

Rev, C. (2018, August 4). ***Advances in Imaging and Heart Failure: Where are we Heading?***

PubMed Central (PMC). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6125708/

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

Home Medications (5 required)

Brand/Generic					
Dose					
Frequency					
Route					
Classification					
Mechanism of Action					
Reason Client Taking					
Contraindications (2)					
Side Effects/Adverse Reactions (2)					
Nursing Considerations (2)					
Key Nursing Assessment(s)/Lab(s) Prior to Administration					
Client Teaching Needs (2)					

Hospital Medications (5 required)

Brand/Generic					
Dose					
Frequency					
Route					
Classification					
Mechanism of Action					
Reason Client Taking					
Contraindications (2)					
Side Effects/Adverse Reactions (2)					
Nursing Considerations (2)					
Key Nursing Assessment(s)/Lab(s) Prior to Administration					
Client Teaching Needs (2)					

Medications Reference (1) (APA):

Assessment

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

GENERAL: **Alertness: A&O x4** **Orientation: Oriented to person, time, place, and current events** **Distress: no acute distress** **Overall appearance: Well groomed**	
INTEGUMENTARY: **Skin color: White normal for race** **Character: appears hydrated** **Temperature: warm** **Turgor: Rapid recoil** **Rashes: None noted** **Bruises: Bruised on lower right abdomen from insulin shots** **Wounds: .None noted** **Braden Score: 21** **Drains present: Y☐ N ☐ No** **Type:**	
HEENT: **Head/Neck: Symmetrical, no lesions, no rashes** **Ears: Auricle pink, moist with no rashes, or lesions noted** **Eyes: Sclera white, cornea clear, conjunctiva pink, no lesions or discharged noted** **Nose: Septum midline, no drainage or bleeding noted** **Teeth: Patient only has top row of teeth, bottom row are missing, good detention on top teeth.**	.
CARDIOVASCULAR: **Heart sounds: S1,S2 sounds sounded a little diminish due to pleural effusion** **S1, S2, S3, S4, murmur etc.**	.

Cardiac rhythm (if applicable): **Peripheral Pulses: 79** **Capillary refill: under 3 seconds** **Neck Vein Distention: Y ☐ N ☐** **Edema Y ☐ N ☐ Yes** **Location of Edema:** **Patient had edema in both legs**	
RESPIRATORY: **Accessory muscle use: Y☐ N ☐ No** **Breath Sounds: Location, character** **Breath sounds were clear with little faintness in the back area caused by pleural effusion. Non labored, No crackles noted**	.
GASTROINTESTINAL: **Diet at home: sodium, fluid retention** **Current Diet sodium and fluid retention** **Height: 5'11** **Weight: 252 lbs** **Auscultation Bowel sounds: Present in all four quadrants** **Last BM: Sunday** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention: Distention noted on abdomen .** **Incisions: No incisions noted** **Scars: No scars noted** **Drains: No drains noted** **Wounds: no wounds noted** **Ostomy: Y ☐ N ☐ No** **Nasogastric: Y ☐ N ☐ No** **Size:** **Feeding tubes/PEG tube Y ☐ N ☐ No** **Type:**	.
GENITOURINARY: **Color: Yellow** **Character: Patient reported no cloudiness or sediment in urine** **Quantity of urine: Patient did not use bathroom while I was there** **Pain with urination: Y ☐ N ☐ No** **Dialysis: Y ☐ N ☐ No** **Inspection of genitals:**	

Catheter: Y ☐ N ☐ No **Type:** **Size:**	
MUSCULOSKELETAL: **Neurovascular status: Patient had warmth in extremities, no pain or tingling sensation could move fingers and toes.** **ROM: Pt can move all extremities** **Supportive devices: Cane** **Strength: Weakness in left arm** **ADL Assistance: Y☐ N ☐ No** **Fall Risk: Y ☐ N☐ No** **Fall Score: 30** **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk X**☐	.
NEUROLOGICAL: **MAEW: Y ☐ N☐ Yes** **PERLA: Y ☐ N☐ Yes** **Strength Equal: Y ☐ N ☐ if no - left arm weaker Legs ☐ Arms ☐ Both ☐** **Orientation: A&O x4** **Mental Status: Alert** **Speech: Clear and Spontaneous** **Sensory: Reflexes present** **LOC: Awake and Alert**	.
PSYCHOSOCIAL/CULTURAL: **Coping method(s): Listening to music, Watching TV** **Developmental level: Adult** **Religion & what it means to pt.: Christian** **Personal/Family Data (Think about home environment, family structure, and available family support): Patient lives alone he says.**	.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0353	79	99/63	18	98.1	100% on O2

					2L
0739	**76**	**98/64**	**18**	**97.4**	**94 % on O2** **2L**

Vital Sign Trends:

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0542	**2**	**Heel of feet**	**severe**	**sharp**	**Tylenol**
1000	**4**	**Heel**	**mild**	**sharp**	**Tylenol**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 18 G **Location of IV: Left lower proximal forearm** **Date on IV: 2/19/22** **Patency of IV: flowing, open not clotted.** **Signs of erythema, drainage, etc.: No** **IV dressing assessment: Clean, Intact,dry**	Saline lock.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Client drinks 30 mL of water while in the room	**Zero output patient did not use the bathroom**

Nursing Care

Summary of Care (2 points)

Overview of care: Patient received medications and talked to his physician about getting a defibrillator on his heart

Procedures/testing done: None done today

Complaints/Issues: Patient had no complaints

Vital signs (stable/unstable): Vital signs appeared stable

Tolerating diet, activity, etc.: Patient did not urinate or defecate while I was there, Patient ate 100% of breakfast

Physician notifications: Patient agreed to have a defib placed

Future for client: Patient will have the defibrillator placed Monday, stay one day in hospital, and then go home

Discharge Planning (2 points)

Discharge location: Patients Home

Home health needs (if applicable): None

Equipment needs (if applicable): A Cane

Follow up plan: Client will come back in a month to discuss the defibrillator

Education needs: Defibrillator education

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

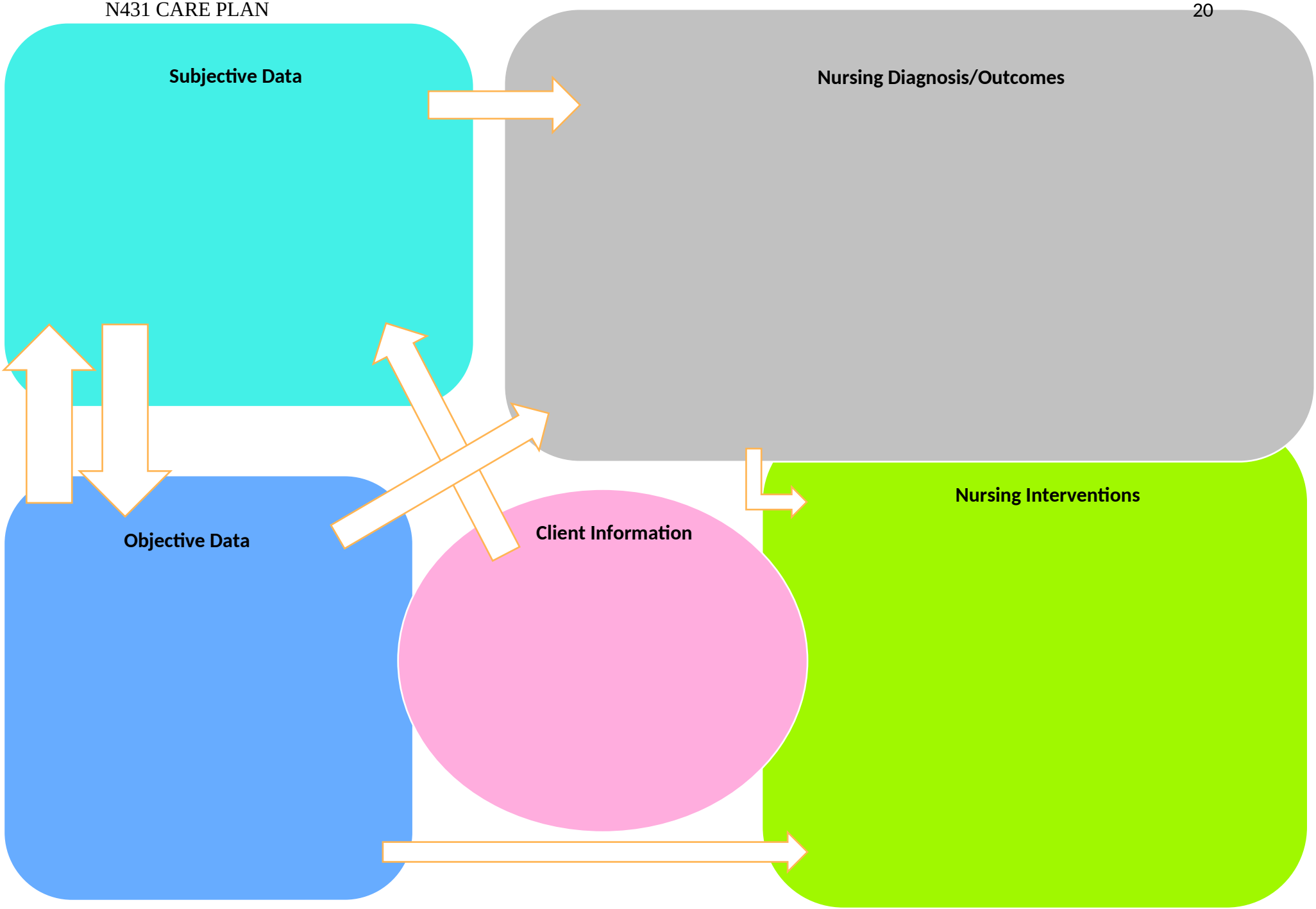
Nursing Diagnosis	**Rationale**	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation**
• Include full nursing diagnosis with "related to" and "as evidenced by" components	• Explain why the nursing diagnosis was chosen			• How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to

• Listed in order by priority – highest priority to lowest priority pertinent to this client				plan.
1. Decreased cardiac output related to altered myocardial contractility changes evidenced by decreased urine output	**Patient had decrease in urine output and has severe aortic valve stenosis**	**1. Note heart sounds** **2. Auscultate apical pulse, assess heart rate**	**1. Patient will demonstrate cardiac output by vital signs within acceptable ranges**	**Patient is willing to participate in activities that reduce cardiac workload**
2. Excess fluid volume related to reduced glomerular filtration rate evidenced by Edema, respiratory distress	**Patient has edema in both his legs and had shortness of breath on admission.**	**1. Monitor urine output, noting amount and color, as well as the time of day** **2. Monitor and calculate 24-hour intake and output balance**	**Demonstrate stabilized fluid volume with balanced intake and output, breath sounds**	**Patient is willing to participate and notify nurse when urinating**
3. Impaired skin integrity	**Patient has edema in both of his lower legs**	**1.Inspect skin, noting skeletal prominences, presence of**	**1. Maintain skin integrity**	**Patient is glad that he will have someone looking at his edema**

related to Edema, decreased tissue evidenced by edema in patients' legs		**edema, areas of altered circulation, or obesity and/or emaciation** **2. Check the fit of shoes and slippers and change as needed**		
4. Acute pain related to decreased myocardial blood flow evidenced by difficulty breathing	**Patient complained of pain in his heel.**	**1.Assess patient pain for intensity using a pain rating scale, location, and precipitating factors** **2. Assess the response to medications every five minutes**	**1. Patients pain will be decreased**	**Patient will follow plans as advised. Wants to decrease his pain**

Other References (APA):

Concept Map (20 Points):


Subjective Data
Nursing Diagnosis/Outcomes
Objective Data
Client Information
Nursing Interventions

Subjective data: Patient reported a sharp pain in his heels on a scale of 1-10 rating it a 4. Patient reported on admission feeling shortness of breath.

Nursing diagnosis/outcomes: Decreased cardiac output related to altered myocardial contractility changes evidenced by decreased urine output- Patient is willing to participate in activities that reduce cardiac workload. Excess fluid volume related to reduced glomerular filtration rate evidenced by Edema, respiratory distress- Patient is willing to participate and notify nurse when urinating. Impaired skin integrity related to Edema; decreased tissue evidenced by edema in patients' legs- Patient is glad that he will have someone looking at his edema. Acute pain related to decreased myocardial blood flow evidenced by difficulty breathing- Patient will follow plans as advised. Wants to decrease his pain

Nursing interventions: Note heart sounds, auscultate apical pulse, assess heart rate. Monitor urine output, noting amount and color, as well as the time of day, Monitor and calculate 24-hour intake and output balance .Inspect skin, noting skeletal prominences, presence of edema, areas of altered circulation, or obesity and/or emaciation. Check the fit of shoes and slippers and change as needed Assess patient pain for intensity using a pain rating scale, location, and precipitating factors, Assess the response to medications every five minutes.

Client Information: Patient is a white unemployed 80-year-old male. Height is 5’11, weight is 252 lbs.

Objective information: Patient has chronic heart failure, had abnormal lab values of potassium, chloride, CO2, glucose, BUN, creatinine, and troponin. Chest x-ray showed increased pleural effusion.