N321 Care Plan # 1

Lakeview College of Nursing

Mary Jensen

Demographics (3 points)

Date of Admission 2/06/2020	**Patient Initials** RA	**Age** 70	**Gender** Male
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Married	**Allergies** Amoxicillin, Furacin
Code Status Full code	**Height** 180 cm	**Weight** 57.3 kg	

Medical History (5 Points)

Past Medical History: Pt. has a history of COPD, HTN, pneumonia, R. ventricular enlargement, Anemia, BPH, and GERD

Past Surgical History: Pt had an esophagogastroduodenoscopy biopsy on 3/4/19 and has had a hernia repair.

Family History: Pt. reports father had a heart attack at age 50.

Social History (tobacco/alcohol/drugs): Pt is a former smoker of 15 years, drinks one or two beers per week, and does not have any history of drug use.

Assistive Devices: Pt. uses a wheeled walker and wears glasses.

Living Situation: Pt. lives at home with wife.

Education Level: Patient's highest education completed is some college.

Admission Assessment

Chief Complaint (2 points):: "Shortness of breath"

History of present Illness (10 points): Patient was brought to the emergency room complaining he "just couldn't catch his breath" and that it had gradually gotten worse over the course of the week. Patient reports discomfort in chest and SOB beginning on Saturday (2/1/20) before coming to the ED on 2/6/20. He states that laying down and too much activity makes it more

difficult to breath. The patient also mentioned that sitting up helps with the SOB. Patient rates his pain a 0/10 that it was more of a discomfort.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Congestive Heart Failure

Secondary Diagnosis (if applicable): COPD, HTN

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

Heart failure is a broad condition meaning that the heart is unable to adequately pump blood to the arterial or peripheral systems due to the inability to fill and release in the blood in the heart chambers (Capriotti & Frizzell, 2016, p. 371). The heart is a unique organ made up of one single muscle that is timed with electrical impulses to create a rhythm between relaxation and contraction that work together to disperse blood to the rest of the body. As discussed by Capriotti & Frizzell (2016), “there are four main pathological changes that can lead to the development of heart failure: increased fluid volume or volume overload, impaired ventricular filling, degeneration of ventricular muscle, or decreasing ventricular contractile function” (p.378). Any of the four previously mentioned changes can equate to a declining cardiac output, which can affect several organs and systems throughout the body.

The most prevalent causes of heart failure are ischemic heart disease, chronic hypertension, and chronic obstructive pulmonary disorder (COPD) (Capriotti & Frizzell, 2016, p. 378). In the case of this patient, he has a history of hypertension and COPD which are most likely the causes of his heart failure due to high workloads and pressures exerted on the heart muscle’s walls. There are many signs and symptoms that are associated with heart failure which are listed by Mayo Clinical Staff (2017), “shortness of breath, fatigue and weakness, swelling

(edema) in legs, ankles, and feet, rapid or irregular heartbeat, reduced ability to exercise, persistent cough or wheezing with white or pink blood-tinged phlegm, increased need to urinate at night, ascites, rapid weight gain from fluid retention, lack of appetite and nausea, difficulty concentrating, sudden severe shortness of breath, and chest pain" (para. 2). Typically, in heart failure patients you will observe a decrease in electrolyte levels, especially when looking at sodium and potassium due to fluid retention diluting the serum (Capriotti & Frizzell, 2016, p. 393). In RA's labs some minor changes to his electrolytes can be seen in his sodium, chloride, creatinine, and albumin. In order to be diagnosed with heart failure the client must meet at minimum, one major criterion and two minor criteria from Framingham Criteria for Diagnosis of Heart Failure; diagnostic tests that can be done are chest x-rays, electrocardiogram, echocardiogram, a multiple-gated acquisition scan, and cardiac catherization and angiography (Capriotti & Frizzell, 2016, p. 393-394). In the instance of RA he had a chest x-ray, CT angiography, and EKG done to diagnose his condition.

As stated by Capriotti & Frizzell (2016), some of the common risk factors for heart failure are age, ethnicity, genetics, diabetes, obesity, lifestyle factors, medications, sleep apnea, congenital heart defects, viruses, alcohol abuse, and kidney conditions (p.382).

Treatment

Treatment options available to patients with heart failure are lifestyle modification and medications, both are being used for this patient.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology Introductory Concepts and Clinical Perspectives.* Philadelphia, PA: F. A. Davis.

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Heart failure. (2017, December 23). Retrieved February 20, 2020, from https://www.mayoclinic.org/diseases-conditions/heart-failure/symptoms-causes/syc-20373142

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	4.28-5.56	3.02	3.20	Patient has a history of anemia which can decrease RBC numbers (Capriotti, 2016).
Hgb	13-17	10.1	10.1	Patient has a history of anemia which can decrease Hgb numbers (Capriotti, 2016).
Hct	38.1-48.9	29.9	30.1	Patient has a history of anemia which can decrease Hct numbers (Capriotti, 2016).
Platelets	149-393	324	450	CHF patients have an increased risk for thromboembolisms due to increased numbers of platelets.
WBC	4-11.7	7.7	7.0	
Neutrophils	45.3-79	N/A	66.7	
Lymphocytes	11.8-45.9	18	22.3	
Monocytes	4.4-12.9	9	10.5	
Eosinophils	0-6.3	0.1	0.1	
Bands	0-6	5	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	135	133	CHF can cause a decrease in Na- due to fluid retention (Capriotti,

				2016).
K+	3.5-5.1	3.6	4.8	
Cl-	98-107	98	92	CHF can cause a decrease in Cl- due to fluid retention (Capriotti, 2016).
CO2	21-31	33	37	COPD can cause an increase in CO2 levels (Capriotti, 2016).
Glucose	74-109	115	100	
BUN	7-25	23	14	
Creatinine	0.7-1.3	0.56	0.6	CHF can cause a decrease due to fluid retention (Capriotti, 2016).
Albumin	3.5-5.2	3.1	3.3	CHF can cause a decrease due to fluid retention (Capriotti, 2016).
Calcium	8.6-10.3	8.8	9.1	
Mag	1.6-2.4	N/A	N/A	
Phosphate		N/A	N/A	
Bilirubin	0.3-1	0.3	N/A	
Alk Phos	34-104	103	N/A	
AST	13-39	39	N/A	
ALT	7-52	49	N/A	
Amylase		NA	N/A	
Lipase		N/A	N/A	
Lactic Acid		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**	**Value on**	**Today's**	**Reason for Abnormal**

	Range	Admission	Value	
INR		N/A	N/A	
PT		N/A	N/A	
PTT		N/A	N/A	
D-Dimer		N/A	N/A	
BNP	0-100	116	N/A	Heart failure can cause an excess of BNP to be found in the blood (Capriotti, 2016).
HDL	23-92	N/A	N/A	
LDL	<,= 100	N/A	N/A	
Cholesterol	<,= 149	N/A	N/A	
Triglycerides	0-149	N/A	N/A	
Hgb A1c	<,= 6.4	N/A	N/A	
TSH	0.45-5.33	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	Yellow	N/A	N/A	
pH	6.0	N/A	N/A	
Specific Gravity	1.005-1.034	N/A	N/A	
Glucose	Normal	N/A	N/A	
Protein	Negative	N/A	N/A	
Ketones	Negative	N/A	N/A	
WBC	<5	N/A	N/A	
RBC	0-3	N/A	N/A	

Leukoesterase	Negative	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	**Neg**	N/A	N/A	
Blood Culture	**Neg**	Neg	Neg	
Sputum Culture	**Neg**	Neg	Neg	
Stool Culture	**Neg**	N/A	N/A	

Lab Correlations Reference (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology Introductory Concepts and Clinical Perspectives.* Philadelphia, PA: F. A. Davis.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): EKG, Chest X-Ray, Chest CT with angiography and contrast

Diagnostic Test Correlation (5 points):

- EKG
    - The patient arrived at the ED with a complaint of shortness of breath with it continuously getting worse over the course of a week. An EKG was done to rule

out any cardiac events (Capriotti, 2016) and the results were a normal sinus rhythm at 87 bpm.

- Chest X-Ray
    - Patient was brought to the ED with shortness of breath and has a history of COPD. A chest x-ray was performed, and results showed cardiomegaly (enlargement of the heart) and mild pulmonary edema which is conducive with the CHF diagnosis.
- CT with angiography of the Chest
    - A chest CT with angiography and contrast of the chest was performed on 2/9/20 to see if there were any other causes for the shortness of breath and revealed mild pneumonia.

Diagnostic Test Reference (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology Introductory Concepts and Clinical Perspectives.* Philadelphia, PA: F. A. Davis.

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

Home Medications (5 required)

Brand/Generic	sulfasalazine	Lisinopril	omeprazole	gabapentin	albuterol
Dose	500 mg	10 mg	40 mg	100 mg	2.5 mg/ 3ml
Frequency	BID	Daily	Daily	Daily	PRN, Q4H
Route	PO	PO	PO	PO	Inhalation
Classification	Anti-Inflammatory	Antihypertensive	Antiulcer	Anticonvulsant	Bronchodilator
Mechanism of Action	Provides antibacterial along the intestinal wall.	Inhibits BP by prevention angiotensin I from becoming	Interferes with gastric acid secretions	Prevents painful stimuli because it is similar to GABA	Relaxes smooth muscle of bronchial dialator and

		angiotensin II.			inhibits histamine
Reason Client Taking	GERD	HTN	GERD	Postherpetic neuralgia	Bronchitis, COPD
Contraindications (2)	Renal impairment, asthma	Renal impairment, Diabetes	Hypersensitivity, concurrent therapy with rilpivirine	Hypersensitivity to gabapentin Hypersensitivity to the drugs components	Hypersensitivity to medication
Side Effects/Adverse Reactions (2)	Abdominal pain, cyanosis	Ataxia, confusion	Chest pain, hypoglycemia	Peripheral edema, anorexia	Drowsiness, headache
Nursing Considerations (2)	Monitor BUN and serum Creatine levels. Monitor pt for hypersensitivity.	Monitor BP often, use caution in pt with FVD and heart failure.	Give before meals, know it can interfere with absorption of B12	You can mix with with applesauce or pudding, monitor renal function	Monitor potassium levels, Drug tolerance can develop.

Hospital Medications (5 required)

Brand/Generic	Enoxaparin Lovenox	methylPREDNISONE SOLU-Medrol	roflumilast Daliresp	fluticasone Flonase	carbamazepine
Dose	40 mg = 0.4ml	40 mg= 1ml	500 mcg	100 mcg	200 mg
Frequency	Daily	TID	Daily	Daily	BID
Route	SQ	IV Push	PO	Nasal	PO
Classification	Antithrombotic	Anti-inflammatory, immunosuppressant	Antipulmonic obstructive agent	Antiasthmatic	Analgesic, anticonvulsant
Mechanism of Action	Prevents fibrinogen from converting to fibrin	Suppresses inflammatory and immune responses by inhibiting accumulation of monocytes	Inhibits AMP-metabolizing enzyme to improve pulmonary function	Inhibits cells involved in inflammatory response of asthma	Keeps sodium out of the cell to slow nerve impulse transmission
Reason Client Taking	Prevention of DVT	pneumonia	COPD	COPD	trigeminal neuralgia
Contraindication	Active major	Fungal infections,	Hypersensitivity	Hypersensitivity	History of

s (2)	bleeding, history of HIT	hypersensitivity to medication	, moderate – severe liver impairment	, untreated nasal infections	bone marrow depression, MAOI therapy
Side Effects/Adverse Reactions (2)	Anemia, Dyspnea	Ataxia, arryhthmias	Anxiety, depression	Abdominal pain, dermatitis	Chills, blurred vision
Nursing Considerations (2)	Do not give as IM injection, use caution in pt with increased risk of hemorrage	Take with food, be cautious in patients with CHF	Watch for suicidal tensdencies, Monitor weight especially weight loss	Monitor patient for allergic reaction, admin fast acting bronchodilator as ordered.	Monitor WBO count, withdrawl from medication gradually

Medications Reference (APA):

Jones & Bartlett Learning. (2018). *2019 Nurses Drug Handbook.* Burlington, MA.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is AOx4 with no apparent stress. Pt. appears stated age and is pleasant and cooperative.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Skin color is consistent with stated race (Caucasian). Skin is pink, warm, and dry with some peeling. Skin turgor has some tenting as expected with older age. Capillary refill is less than 3 seconds. No noted wounds, rashes, or legions present. No drains or ports present. Patient has some bruising around IV in right AC. Braden score: 12 – Patient is a high skin risk.

HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head is normocephalic, with ears intact bilaterally. Pt. uses eyeglasses and PERRLA is noted. No noted signs of a deviated septum, polyps, or turbinates. Trachea falls midline. Patient has his own teeth and does not use 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:**	Pt has normal sinus rhythm and rate. No noted murmurs, gallops, or rubs. Both bilateral upper and lower extremity peripheral pulses 2+. No neck distention noted. Some swelling in feet bilaterally, but no edema noted.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	No visible accessory muscles used. Lung sounds slightly diminished bilaterally. No audible wheezes or crackles. Pt. is on 2L of O2 when at rest and 4L when active.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **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:**	Patient has a regular diet at home. Currently on heart healthy diet low in sodium. Pt. is 180cm tall and weighs 57.3 kg. Bowel sounds were present in all four quadrants. Last BM was this morning around 10am. No noted distention, incisions, scars, drains, or wounds.
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒**	Patient uses urinal and urine is clear and yellow. Reports no pain with urination. He is not on dialysis and does not need a catheter. Pt. does have some redness on his groin and scrotum and has a mepilex pad on his coccyx to prevent

Dialysis: Y ☐ N ☒ **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	further skin breakdown.
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** ☐	Full ROM bilaterally in both upper and lower extremities. Pt has some generalized weakness, and needs ADL assistance x1 with wheeled walker. Fall score 60.
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Pt is awake and A&O x4 and MAEW. Pt exhibits equal strength in all extremities. Pt has mental status appropriate to age, clear speech, and no noted loss of sensation.
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 likes to spend time with family and be outside. He is Christian and attends church and lives at home with wife who comes to visit often.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0752	82 bpm	98/42	18	36.6	94%
1030	84 bpm	100/45	18	36.6	95%

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0800	Numeric Scale 0/10	Patient denies pain	0/10	N/a	No interventions needed
1045	Numeric Scale 0/10	Patient denies pain	0/10	N/a	No interventions needed

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV:20g **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	Saline lock Right 20g peripheral IV in AC on 2/15/20 No signs erythema or drainage.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
520mL	1475 mL

Nursing Care

Summary of Care (2 points)

Overview of care: Assisting with administration of the patients medication and providing care in hopes the patient could successfully participate in a walk test.

Procedures/testing done: Walk test

Complaints/Issues: shortness of breath

Vital signs (stable/unstable): Stable with administration of O2.

Tolerating diet, activity, etc.: Tolerating healthy heart diet well.

Physician notifications: Possibility of discharge for pt. after being signed off by Cardio physician and will follow up with pulmonology after discharge.

Future plans for patient: Complete a successful walk test and wean off O2.

Discharge Planning (2 points)

Discharge location: Home with wife

Home health needs (if applicable): Physical and Occupational therapy, home oxygen

Equipment needs (if applicable): wheeled walker and raised toilet seat

Follow up plan: Schedule follow-up with pulmonology and appointments with PT and OT.

Education needs: Education patient about new medications, about importance of taking daily weight, dietary needs (low sodium) and fall prevention.

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

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Risk for. Impaired gas exchange related to CHF as evidenced by pulmonary edema.	The pt has both COPD CHF and shows signs of hypoxemia.	1. Monitor oximetry and ABGs **2.** Keep head of Pt bed in high fowlers position	Pt. and family responded well to treatment. Allows for easier breathing for client.
1. Risk for	The patient shows	**1.** Assess daily	The patient was not

excess fluid volume related to CHF as evidenced by pulmonary edema.	signs of retaining fluid which can be an indicator of CHF.	weight in the morning and record **2.** Administer diuretic to increase output if needed	bothered by having his weight checked. Giving a diuretic can increase urine output and therefore remove fluid from the patient's body.
2. Risk of Activity intolerance due to an imbalance in oxygen supply and demand related to COPD and CHF.	In relation to COPD and CHF.	**1.** Assess vital signs every 4hrs and report significant findings. 2. Ask patient perceived exertion	The patient did not mind the assessment or questions about how he was feeling.

Other References (APA):

Swearingen, P. L. (2016). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*(4th ed.). St. Louis, MO: Elsevier.

Concept Map (20 Points):

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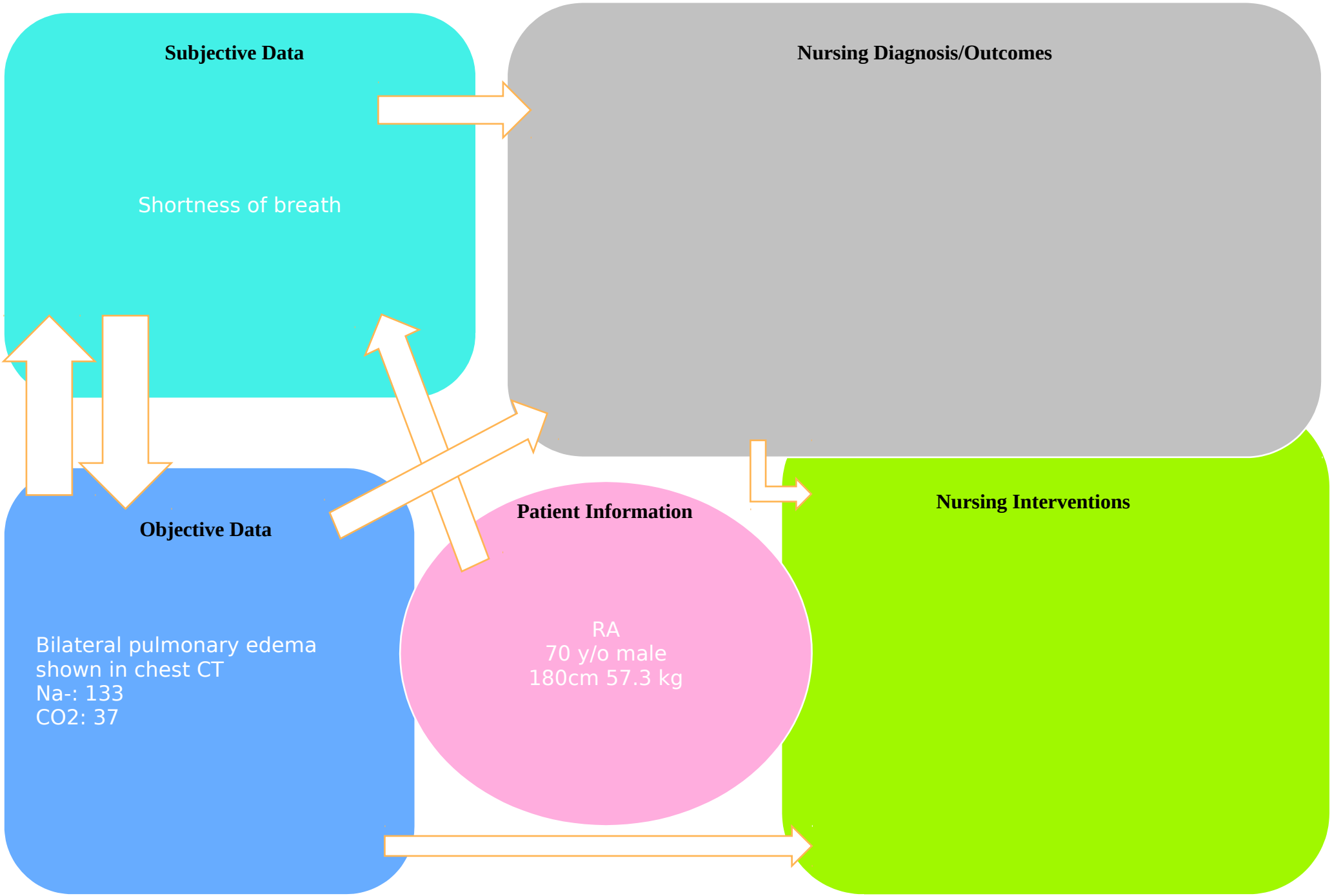

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