N321 Care Plan # 3

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 11/16/2020	**Patient Initials** D.R.	**Age** 66	**Gender** male
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Divorced	**Allergies** Erythromycin – N/V Penicillin – vomiting & swelling
Code Status Full Code	**Height** 66”	**Weight** 140 lbs	

Medical History (5 Points)

Past Medical History: COPD, hypertension, chronic respiratory failure, & severe recurrent major depression

Past Surgical History: Mohs surgery

Family History: Mother (deceased): depression

Maternal Grandmother (deceased): depression

Social History (tobacco/alcohol/drugs): Tobacco: former smoker, last cigarette was June 2017

Alcohol: Patient denies use of alcohol

Drugs: Patient denies use of drugs

Assistive Devices: Walker

Living Situation: Patient lives at home by himself

Education Level: High school diploma

Admission Assessment

Chief Complaint (2 points): Short of breath

History of present Illness (10 points):. Patient is a 66-year-old male who presented to the emergency department with shortness of breath. Patient states he’s had shortness of breath for approximately 2 weeks. He was discharged from the hospital a couple of weeks ago and has been

experiencing shortness of breath since discharge. Patient was found to be tachycardic in the ED with a heart rate of 150. He denies any chest pain or a history of atrial fibrillation. He also denies any current nausea, vomiting, or diarrhea.

Primary Diagnosis

Primary Diagnosis on Admission (2 points):.COPD exacerbation

Secondary Diagnosis (if applicable):.Right upper lobe pneumonia, bacterial

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

COPD is a disease caused by chronic bronchitis, emphysema, and hyperactive airway disease (Capriotti & Frizzell, 2019). Some complications of the disease involve overproduction of mucus in the airways, hypoxia, cyanosis (Capriotti & Frizzell, 2019). The excess mucus prevents airflow and exhausts the bodies ability to oxygenate due to air getting trapped in the alveoli and expanding (Capriotti & Frizzell, 2019). Harsh chemicals and other airborne pollutants aggravate the airway and intensify symptoms of bronchospasm (Capriotti & Frizzell, 2019). Inflammation from chronic bronchitis leads to a change in the structure of the lungs (Capriotti & Frizzell, 2019). One way that the body responds to the lack of airflow is an increase in CO2 levels. After time, the body gets used to the high levels of CO2 and stops responding to it (Capriotti & Frizzell, 2019). Severe COPD affects other systems of the body as well. The cardiovascular system is affected by COPD, resulting in hypertension from right ventricular failure (Capriotti & Frizzell, 2019).

Increased age and a history of smoking are two main influences in a person's development of COPD. Limited airflow results in difficult breathing and coughing, which are two of the amin symptoms of the disease (Capriotti & Frizzell, 2019). Increased incidence of exposure to toxins like asbestos, silica, hydrogen sulfide, lead, mercury, coal, cotton dust, and

diisocyanatos directly affect an individual's likelihood of developing COPD (Capriotti & Frizzell, 2019).

Symptoms of COPD include dyspnea, cough, sputum production, wheezing, chest tightness, and congestions (Miravitlles & Ribera, 2017). It has been reported that symptoms are worse in the morning and that cough and sputum production provide the most difficulties (Miravitlles & Ribera, 2017). Bronchodilators and oxygen therapy is most often used to help treat COPD symptoms (Capriotti & Frizzell, 2019). Maintaining physical activity is important to both help slow the progression of the disease and improve mental illness among people who suffer from the disease (Miravitlles & Ribera, 2017). As a result of COPD many individuals suffer from anxiety and depression from decreased ability to take care of daily living skills and feeling like a burden (Miravitlles & Ribera, 2017). This patient suffers from severe recurrent depression and mental illness is very common among individuals with COPD.

Diagnosis of COPD is done through various means. Pulmonary function tests, CBC, blood chemistry, chest x-ray, EKG, and arterial blood gasses are used in diagnosis (Capriotti & Frizzell, 2019). Chest x-rays help to show changes in the structure of the lung's borders and fields (Capriotti & Frizzell, 2019). This patients x-ray showed evidence of upper lobe pneumonia, which is possibly causing the shortness of breath. It is also common for a CBC to show a higher number of erythrocytes due to excess productions of erythropoietin (Capriotti & Frizzell, 2019).

Pathophysiology References (2) (APA):

Capriotti, T. & Frizzell, J.P. (2016). *Pathophysiology: Introductory Concepts and Clinical Perspectives.* 1st ed. F.A. Davis Company: Philadelphia, PA. ISBN 9780803615717

Miravitlles, M., & Ribera, A. (2017). Understanding the impact of symptoms on the burden of COPD. *Respiratory Research*, *18*(1). https://doi.org/10.1186/s12931-017-0548-3

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	4.2-5.4	4.70	4.47	
Hgb	4.0-6.0	14.6	14.3	Increased hemoglobin levels are a sign of COPD (Capriottti & Frizzell, 2019).
Hct	37-47	44.2	41.8	
Platelets	140-144	211	210	Inflammatory diseases, such as COPD cause in increase in platelet levels (Capriotti & Frizzell, 2019).
WBC	4.0-20.0	18.5	11.8	
Neutrophils	36-88	17.8	11.3	
Lymphocytes	24.0-44.0	0.2	3.2	Infection from the pneumonia results in a decrease of lymphocytes (Capriotti & Frizzell, 2019).
Monocytes	0.0-8.0	2.9	1.0	
Eosinophils	0.0-4.0	NA	NA	
Bands	0-500	NA	NA	

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	131	133	Hyponatremia is due to congestive heart failure or a deficiency of dietary intake (Capriotti & Frizzell, 2019).
K+	3.5-5.1	4.4	4.5	
Cl-	95-105	93	100	Respiratory diseases cause

				hyperchloremia (Capriotti & Frizzell, 2019).
CO2	21-31	22	22	
Glucose	74-109	257	112	Inflammation from the COPD causes an increased serum glucose level (Capriotti & Frizzell, 2019).
BUN	7-25	19	15	
Creatinine	0.5-1.5	1.31	0.83	
Albumin	4-36	3.8	NA	
Calcium	8.6-10.3	9.1	NA	
Mag	1.8-3.0	2.4	NA	
Phosphate	3.0-4.5	NA	NA	
Bilirubin	0.1-1	0.9	NA	
Alk Phos	42-136	75	NA	
AST	0-35	19	NA	
ALT	10-35	20	NA	
Amylase	30-170	NA	NA	
Lipase	3-19	NA	NA	
Lactic Acid	0.5-2	NA	NA	

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	2-3	NA	NA	

PT	11.2-13.2	NA	NA	
PTT	22.1-34.1	NA	NA	
D-Dimer	<500	NA	NA	
BNP	<100	NA	NA	
HDL	>40	NA	NA	
LDL	<00	NA	NA	
Cholesterol	<200	NA	NA	
Triglycerides	10-150	NA	NA	
Hgb A1c	4-5.6	NA	NA	
TSH	0.4-5.0	NA	NA	

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	Pale yellow and clear	NA	NA	
pH	5-9	NA	NA	
Specific Gravity	1.005-1.03	NA	NA	
Glucose	Negative	NA	NA	
Protein	25	NA	NA	
Ketones	Negative	NA	NA	
WBC	4-5	NA	NA	
RBC	2-3	NA	NA	
Leukoesterase	Negative	NA	NA	

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	<10,000	NA	NA	
Blood Culture	Negative	NA	NA	
Sputum Culture	Negative	NA	NA	
Stool Culture	Negative	NA	NA	

Lab Correlations Reference (APA):

Jane Vincent Corbett, & Angela Denise Banks. *Laboratory Tests and Diagnostic Procedures: With Nursing Diagnoses.* Ny, NY. Pearson, 2019.

Capriotti, T. & Frizzell, J.P. (2016). *Pathophysiology: Introductory Concepts and Clinical Perspectives.* 1st ed. F.A. Davis Company: Philadelphia, PA. ISBN 9780803615717

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

X-ray → possible pneumonia in right upper lobe

EKG → Sinus tachycardia, no ST or T wave abnormalities

Diagnostic Test Correlation (5 points):

Patient presented to the hospital with SOB for the past 2 weeks. The patient also has a history of COPD which paired with the SOB warrants an x-ray of the chest (Capriotti & Frizzell, 2016). The patient also presented to the ER with tachycardia. It is important for patients with

tachycardia to get an EKG to determine if there are any other abnormalities detected (Capriotti & Frizzell, 2016).

Diagnostic Test Reference (APA):

Capriotti, T. & Frizzell, J.P. (2016). *Pathophysiology: Introductory Concepts and Clinical Perspectives.* 1st ed. F.A. Davis Company: Philadelphia, PA. ISBN 9780803615717

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

Home Medications (5 required)

Brand/ Generic	Zestril/ lisinopril	Klonopin/ clonazepam	Cymbalta/ duloxetine hydrochloride	Daliresp/ roflumilast	Deltasone/ prednisone
Dose	10 mg	1 mg	60 mg	250 mcg	10 mg
Frequency	Daily	PRN	Daily	Daily	Daily
Route	PO	PO	PO	PO	PO
Classification	Chemical: Lysine ester of enalaprilat Therapeutic: Antihypertensive, vasodilator	Chemical: Benzodiazepine Therapeutic: anticonvulsant, antipanic	Chemical: SSNRI Therapeutic: Antidepressant, neuropathic and skeletal pain reliever	Chemical: Selective phosphodiesterase 4 inhibitor Therapeutic: Antipulmonic obstructive agent	Chemical: glucocorticoid Therapeutic: Anti-inflammatory, immunosuppressant
Mechanism of Action	Prevents the conversion of angiotensin I to angiotensin II. With the lack of angiotensin II, aldosterone	Prevents seizures by increasing the effects of GABA and suppresses the spread of seizure activity	Prevents dopamine, serotonin, and norepinephrine reuptake to help elevate mood and inhibit pain	Increases intracellular AMP in lung cells by preventing an AMP metabolizing enzyme in the lung tissue	Binds to glucocorticoid receptors within the cell and destroys inflammatory and immune responses

	secretion is reduced which lowers the amount of sodium and water reabsorption within the body.	caused by foci in the cortex, thalamus, and limbic areas of the brain.	signals		
Reason Client Taking	Blood Pressure	Panic disorder	Major depressive disorder	COPD	COPD, pneumonia
Contraindications (2)	Hypersensitivity reactions, use of a neprilysin inhibitor	Acute narrow angle glaucoma, hypersensitivity reactions	Hepatic insufficiency, angle closure glaucoma	Liver impairment, hypersensitivity reactions	Systemic fungal infection, hypersensitivity reactions
Side Effects/ Adverse Reactions (2)	Arrythmias, cough	Depression, respiratory depression	Hypertension, tachycardia	Depression, atrial fibrillation	Hypertension, restlessness
Nursing Considerations (2)	-Monitor blood pressure often during the first few weeks of therapy or when the dosage is increased. -It should not be given to a hemodynamically unstable patient after an MI	-Taper the medication when you want to stop taking it -At start of therapy or dosage changes, monitor patient closely for signs of suicidal thinking	-obtain a baseline blood pressure before starting drug therapy -Monitor patients serum sodium level, especially in the elderly because the drug can lower serum sodium levels.	-Watch patient closely for suicidal tendencies -Monitor weight and notify doctor or significant weight loss	-Administer the medication in the morning. -Assess regularly for signs and symptoms of hypertension and heart failure

Hospital Medications (5 required)

Brand/ Generic	Bayer/ aspirin	Lipitor/ atorvastatin	Lovenox/ enoxaparin sodium	Protonix/ pantoprazole sodium	Lopressor/ metoprolol
Dose	81 mg	10 mg	40 mg	40 mg	25 mg
Frequency	Daily	Daily	Daily	Daily	BID
Route	PO	PO	SQ	PO	PO
Classification	Chemical: Salicylate Therapeutic: Anti-inflammatory, antiplatelet, antipyretic, nonopioid analgesic	Chemical: Synthetically derived fermentation product Therapeutic: Antihyperlipidemic, HMG-CoA reductase inhibitor	Chemical: low-molecular weight heparin Therapeutic class: Antithrombotic	Chemical: substituted benzimidazole Therapeutic: antiulcer, gastric acid proton pump inhibitor	Chemical: Beta adrenergic antagonist Therapeutic: Antianginal, antihypertensive, MO prophylaxis and treatment
Mechanism of Action	Blocks the activity of enzymes needed for the synthesis of prostaglandins. This helps to reduce inflammation and pain. It also prevents platelet aggregation by preventing the production	Lowers plasma cholesterol and lipoprotein levels by preventing HMG-CoA and cholesterol synthesis in the liver. It also increases the number of LDL uptake.	Helps start antithrombin III which inhibits coagulation by inactivating thrombin and factor Xa.	Prevents gastric acid secretion by disabling the proton pump system in gastric cells. Eliminates the final step in gastric acid production when it blocks the exchange of hydrogen and potassium.	Prevents the stimulation of beta-adrenergic sites in the heart which results in decreased excitability, output, and oxygen demand. Also helps reduce blood pressure by lowering the release of renin.

	of thromboxane A2.				
Reason Client Taking	risk of MI	hypercholesterolemia	Positive D-dimer test	GERD	Hypertension
Contraindications (2)	Asthma, bleeding problems	Active hepatic disease, unexplained rise in serum transaminase level	Active major bleeding, history of HIT or immune mediation HIT within the las 100 days	Concurrent rilpirivine therapy, hypersensitivity reactions	Pheochromocytoma, Acute heart failure
Side Effects/ Adverse Reactions (2)	Confusion, decreased blood iron level	Arrythmias, hypertension	Dyspnea, atrial fibrillation	Depression, dyspnea	Shortness of breath, hypertension
Nursing Considerations (2)	-Do not crush timed-release or control released tablets. -Us immediate-release aspirin when a quick onset of action is necessary.	-measure lipid levels 2 to 4 weeks after starting drug therapy. -Atorvastatin is typically used in patients who do not have obvious coronary artery disease but have multiple risk factors such as age, family history, or low HDL levels.	-Do not give drug by I.M. injection. -Test stool of occult blood.	-administer delayed release tablets 30 minutes prior to a meal and mix it in applesauce or apple juice. -Monitor PT and INR if patient also take an anticoagulant	-Watch or signs of an AV block on and ECG when starting this drug. -Taper the drug over 2 weeks when discontinuing the medication. Abruptly stopping the medication can cause MI, hypertension, or arrythmias.

Medications Reference (APA):

Jones & Bartlett Learning. (2019). *2019 Nurses drug handbook* (18th ed.). Burlington, MA.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient was ANO x 4. He was well groomed and showed no signs of distress.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Patients skin was warm, dry, and pink with good skin turgor. There were noted rashes, legions, bruises, or wounds. He is not at risk for a pressure sore with a Braden score of 19.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are normocephalic with no sinus tenderness. Pupils are equal, round, reactive to light, and accommodate. No deviated septum noted. His oral mucosa is moist and there were no sign of dental carries. .
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:**	S1 and S2 present with a normal rate and rhythm. Strong peripheral pulses at a rate of 95. Capillary refill was noted at less than 3 seconds. Patient did not have JVD. No noted edema present.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	No noted accessory muscle use. Both anterior and posterior breath sound were clear to auscultation.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:**	Patient is on a regular diet at home but was placed on a heart health diet upon admission. He is 66” and 140 lbs. Bowel sounds were present in all 4 quadrants. Patients last bowel movement was on 11/17. No noted pain or mass upon palpation. Inspection showed no distention, incisions, scars, drains, or wounds. There was no

Palpation: Pain, Mass etc.: **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	noted ostomy or feeding tube presents.
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	Urine was yellow in color and had a clear character. Patient denied pain with urination. Not dialysis or catheter noted. Genitals were normal and without signs of inflammation or rash.
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☒**	Patient moves all extremities well with normal range of motion and strength. Patient uses a walker. He is a 1 assist with activities of daily living and is a fall risk with a score of 50. Patient needs assistance to stand and walk.
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☒** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Patient moves all extremities well and pupils are equal, round, reactive to light, and accommodate. Equal strength was noted bilaterally in both his arms and legs. Patient was A&O x 4 with clear speech. His sensory was intact to light and tough, and he was conscious and alert.

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 was cooperative and displayed an appropriate mood and affect. His judgement was intact. He has a high school diploma and lives at him by himself. He does not have any children but has friends that help to support him when needed.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0830	80	147/98	18	36.7 C	3L 98%
1100	84	136/79	18	36.6 C	3L 95%

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0830	Number	Patient denies pain	0	NA	NA
1100	Number	Patient denies pain	0	NA	NA

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 22 **Location of IV:** L AC **Date on IV:** 11/17/2020 **Patency of IV:** Patent **Signs of erythema, drainage, etc.:** No **IV dressing assessment:** Clean, dry, and intact	Saline lock

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
850 mL oral	1050 mL urine

Nursing Care

Summary of Care (2 points)

Overview of care: Patient is A&O x 4 and is able to verbalize his needs. He is a 1 assist for ambulation and activities of daily living.

Procedures/testing done: No procedures or testing done today.

Complaints/Issues: Patient denies any complaints or issues

Vital signs (stable/unstable): Patients blood pressure is running high. His O2 saturation is normal with the 3L room air with a nasal canula.

Tolerating diet, activity, etc.: Patient has no complaints about diet or activity.

Physician notifications: Physician was not present but was in communication with the nursing staff. He is on RT protocol has orders for Solu-Medrol 40 mg IV every 24 hours, and DuoNebs every 4 hours. Rapid COVID was negative but they are waiting for the COVID PCR to officially rule that out. For the pneumonia he is ordered to get Levaquin 750 mg IV every 24 hours.

Future plans for patient: Patient displayed signs of acute kidney injury, so a follow up BMP is planned. A cardiology consult has been set up as well. It has been planned to keep a trend of troponin levels and EKG results.

Discharge Planning (2 points)

Discharge location: Patient plans to go home after discharge

Home health needs (if applicable): No home health needs noted

Equipment needs (if applicable): Oxygen tank, walker

Follow up plan: After discharge patient was advised to follow up with his PCP and cardiology as well.

Education needs: Patient was educated on atorvastatin, Lovenox, and Protonix.

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. Ineffective breathing pattern related to decreased lung expansion occurring with chronic airflow limitations as evidence by COPD exacerbations and patient being SOB.	Patient presented to the hospital due to being SOB for 2 weeks	**1.** Assess respiratory status every 2 to 4 hours and as needed. **2.** Monitor for tachycardia and dysrhythmias.	Patient was notified of necessary monitoring and approved.
2. Activity intolerance related to imbalance between oxygen supply and demand due to inefficient work of breathing as evidence by	Patient needs assistance walking and performing activities of daily living due to the effects of being short of breath.	**1.** Monitor patients' respiratory response to activity including assessment of oxygen saturation. **2.** Maintain prescribed activity levels and explain rationale to patient	Activity level was discussed with patient and was well received.

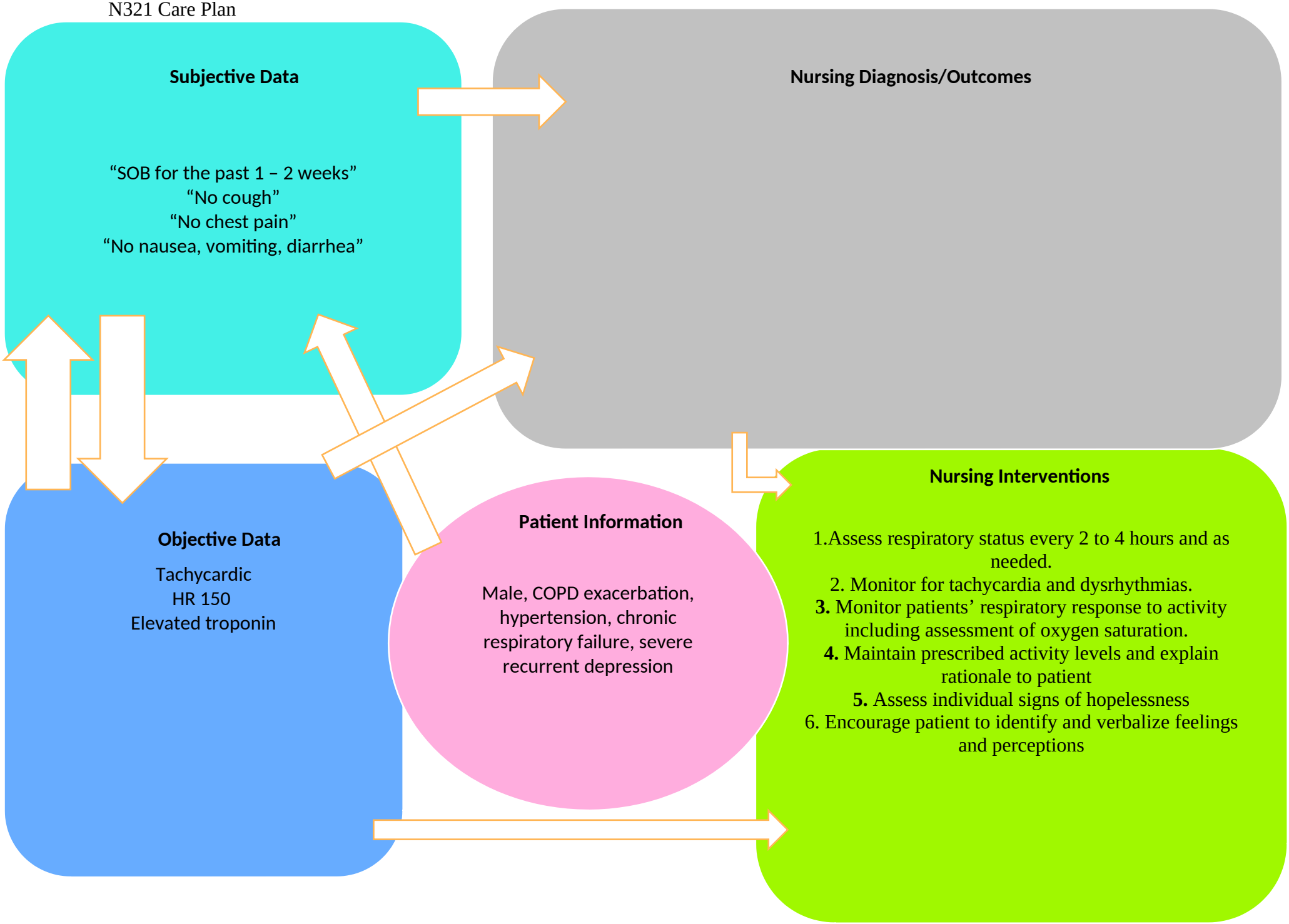
being short of breath and needing assistance with walking and activities of daily living.			
3. Hopelessness related to stresses and basic symptoms of depression as evidence by diagnosis of major depression and stresses of COPD exacerbation	Patient is diagnosed with severe recurrent major depression and is going through a stressful life event.	**1.** Assess individual signs of hopelessness **2**. Encourage patient to identify and verbalize feelings and perceptions	Patient was very responsive and thankful for added support provided from nursing staff.

Other References (APA):

Jones & Bartlett Learning. (2019). *2019 Nurses drug handbook* (18th ed.). Burlington, MA.

Concept Map (20 Points):

N321 Care Plan



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