N321 Care Plan # 3

Lakeview College of Nursing

Linda Duong

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
11/16/2020	ED	66	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White	Retired	Married	erythromycin (Nausea/ Vomit), penicillin (Vomit/Swelling)
Code Status	**Height**	**Weight**	
Full Code	168 cm	64 kg	

Medical History (5 Points)

Past Medical History: COPD Type A, Hypertension, Chronic Respiratory Failure, Severe Recurrent Major Depression

Past Surgical History: Mohs Surgery (2017)

Family History: Depression (Mother), Depression (Grandmother, Mom's Side)

Social History (tobacco/alcohol/drugs): Tobacco: Former Smoker (6/19/2017), Patient denied the use of alcohol and drugs.

Assistive Devices: Walker

Living Situation: Home/Independent, lives with his spouse

Education Level: None Reported

Admission Assessment

Chief Complaint (2 points): Patient presented to the emergency room complaining of shortness of breath.

History of present Illness (10 points): 66-Year-old white male patient presented to emergency room on 11/16/2020 with shortness of breath. Patient states, "I have chest tightness and it feels sharp, and constant. The pain started on the left side of my chest and it radiates to the center of my chest." Patient mentioned shortness of breath has been constant for about 1 to 2 weeks.

Patient mentions he was discharged from the hospital a couple weeks ago and has had persistent dyspnea since then. Patient stated nothing aggravates the pain and medication helps relieve the pain.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Chronic Obstructive Pulmonary Disease (COPD) Exacerbation

Secondary Diagnosis (if applicable): Pneumonia

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

COPD and lower respiratory diseases are the third leading cause of death in the United States and affect more than 5% of the adult population (Hinkle & Cheever, 2018). According to Hinkle and Cheever (2018), chronic obstructive pulmonary disease (COPD) is defined as a disease state characterized by airflow limitation that is not reversible; it is also referred to as chronic airway obstruction or chronic obstructive lung disease. This disease is preventable and treatable, which can have overlapping signs and symptoms of emphysema and chronic bronchitis (Hinkle & Cheever, 2018). The patient's primary diagnosis was COPD, which involves airway limitation; thus, dyspnea may be a sign that COPD may be the cause of this reaction. Primary causes of an acute exacerbation include tracheobronchial infection and air pollution (Hinkle & Cheever, 2018).

This disease process's pathophysiology starts with the airflow limitation being both progressive and associated with the lung's abnormal inflammatory response to particles or gases in the air (Hinkle & Cheever, 2018). The inflammatory response occurs throughout the proximal and peripheral airways, lung parenchyma, and pulmonary vasculature (Hinkle & Cheever, 2018).

Due to the chronic inflammation and the body's attempt to repair the damages, changes, and narrowing of the airways will occur (Hinkle & Cheever, 2018). In the proximal airways, goblet cells and submucosal glands are increased and enlarged, which leads to hypersecretion of the mucous membrane (Hinkle & Cheever, 2018). As the disease progress, the ongoing injury and repair will cause scar tissue formation and narrowing of the airway lumen; thus, structural changes will also occur in the lungs (Hinkle & Cheever, 2018). The alveolar walls will soon destruct, leading to loss of alveolar attachments and decreasing elastic recoil ability (Hinkle & Cheever, 2018). Due to the chronic inflammation process, the pulmonary vasculature will cause the vessel's lining to thicken, causing hypertrophy of the smooth muscles, causing pulmonary hypertension in the future (Hinkle & Cheever, 2018).

Clinical manifestations of COPD include chronic cough, sputum production, and dyspnea (Hinkle & Cheever, 2018). These symptoms can worsen over time, preceding airflow limitation development for many years (Hinkle & Cheever, 2018). Coughing may be the first noticeable symptom, but it can be unproductive in some patients (Hinkle & Cheever, 2018). Dyspnea is often severe and interferes with the patient's daily activities and quality of life. Typically, COPD is progressive and will worsen at rest or even with physical activity (Hinkle & Cheever, 2018). As one's energy decreases, weight loss may be a concern (Hinkle & Cheever, 2018). Patients who have COPD are at risk for respiratory insufficiency, respiratory infections, or COPD exacerbation; thus, increasing the risk of respiratory failure. According to Capriotti and Frizzell (2016), COPD exacerbation is defined as worsening or flare-up of COPD symptoms, usually caused by an infection in the lungs.

Expected findings related to COPD include expanded chest (barrel chest), wheezing during normal breathing, and taking longer to fully exhale out the body's carbon dioxide

(Capriotti & Frizzell, 2016). Many vital signs to monitor for COPD patients include pulse rate, oxygen saturation, and respiratory rate, with oxygen saturation being the most predictive for COPD (Capriotti & Frizzell, 2016). Arterial blood gas measurements can also be obtained to assess the patient's baseline oxygenation and gas exchange for advanced COPD patients (Hinkle & Cheever, 2018). To determine the disease severity and monitoring the patient's disease progression, obtaining a chest x-ray may be useful to exclude the alternative diagnosis (Capriotti & Frizzell, 2016). A high-resolution CT scan can help differentiate the diagnosis from other pulmonary diseases (Capriotti & Frizzell, 2016). The most useful tool used when evaluating a patient's airflow obstruction is using spirometry (Hinkle & Cheever, 2018). Spirometry is a pulmonary function test that measures specific lung volumes and rates before and after bronchodilator administrations (Hinkle & Cheever, 2018). It has predicted values for gender, age, and height and is also used to determine the reversibility of obstruction after using bronchodilators (Hinkle & Cheever, 2018). When choosing the diagnosis of COPD, it is essential to understand the patient's history, the severity of symptoms, and responsiveness to bronchodilators before diagnosis (Hinkle & Cheever, 2018). These contributing factors, along with the history of cigarette smoking, passive smoking exposure, age, resting heart rate, weight loss, and comorbidities, can also determine this disease's survival and clinical course (Hinkle & Cheever, 2018).

Treatment of the disease may include bronchodilators, corticosteroids, managing exacerbations, and providing supplemental oxygen therapy as needed (Hinkle & Cheever, 2018). Patients who have COPD exacerbations typically use roflumilast as a tablet to help reduce the symptoms (Hinkle & Cheever, 2018). Optimizing bronchodilator medications is first-line therapy and involves identifying combinations of drugs that can be used for a specific patient (Hinkle &

Cheever, 2018). Clinical data that correlates to this patient's primary diagnosis includes the patient's past medical history, specifically being a former smoker in 2017, chronic respiratory failure, and having a history of hypertension.

Pathophysiology References (2) (APA):

Capriotti, T. & Frizzell, J.P. (2016). *Pathophysiology: Introductory concepts and clinical perspectives.* 1st ed. F.A. Davis Company

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

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	4.7	4.47	
Hgb	12.0-16.0	14.6	14.3	
Hct	37.0-47.0	44.2	41.8	
Platelets	140-440	211	210	
WBC	4.0-10.0	18.5	11.8	**High-** Patient who have a history of COPD have an increased WBC count due to the severity of airflow limitation/inflammation in the patient's lungs (Koo et al., 2017).
Neutrophils	36-88	17.8	11.3	**Low-** Reduced neutrophils in COPD patients indicate a disease pathology due to the increased area of tissue damage caused by proteinase release during migration (Jasper et al., 2019).
Lymphocytes	24.0-44.0	0.2	3.2	**Low-** Low lymphocytes is one of the indicators of stress response in COPD patients (Moon et al., 2020). The low ratio of lymphocytes in the peripheral blood indicates chronic inflammation (Moon et al., 2020).
Monocytes	0-4.0	2.3	1.0	

Eosinophils	0-500	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	131	133	**Low-** Hyponatremia is due to secondary water retention associated with comorbidities that affect lung function (Chalela et al., 2016). Because the patient has a secondary diagnosis of pneumonia, hyponatremia affects the lung's ability to expand and contract properly (Chalela et al., 2016).
K+	3.5-5.1	4.4	4.5	
Cl-	98-107	93	100	
CO2	21-31	22	22	
Glucose	70-109	257	112	**High-** Glucose has been reported to be higher in COPD patients because of the inflammation in the lungs (Nugent et al., 2015). This causes the lungs to not function properly; thus, glucose moves from the blood into the patient's airway (Nugent et al., 2015).
BUN	7-25	19	15	
Creatinine	0.5-1.5	1.31	0.83	
Albumin	4-36	3.8	N/A	
Calcium	8.6-10.3	9.1	N/A	
Mag	1.8-3.0	2.4	N/A	
Phosphate	3.0-4.5	N/A	N/A	
Bilirubin	0.1-1	0.9	N/A	

Alk Phos	42-136	75	N/A	
AST	0-35	19	N/A	
ALT	10-35	20	N/A	
Amylase	30-170	N/A	N/A	
Lipase	3-19	N/A	N/A	
Lactic Acid	0.5-2	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	2-3	N/A	N/A	
PT	11.2-13.2	N/A	N/A	
PTT	22.1-34.1	N/A	N/A	
D-Dimer	<500	N/A	N/A	
BNP	<100	N/A	N/A	
HDL	<40	N/A	N/A	
LDL	<100	N/A	N/A	
Cholesterol	<200	N/A	N/A	
Triglycerides	10-150	N/A	N/A	
Hgb A1c	4-5.6%	N/A	N/A	
TSH	0.4-5.0	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	Pale yellow and clear	N/A	N/A	
pH	5-9	N/A	N/A	
Specific Gravity	1.005-1.03	N/A	N/A	
Glucose	Negative	N/A	N/A	
Protein	25	N/A	N/A	
Ketones	Negative	N/A	N/A	
WBC	>100	N/A	N/A	
RBC	15	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	<10,000	N/A	N/A	
Blood Culture	Negative	N/A	N/A	
Sputum Culture	Negative	N/A	N/A	
Stool Culture	Negative	N/A	N/A	

Lab Correlations Reference (APA):

Chalela, R., González-García, J. G., Chillarón, J. J., Valera-Hernández, L., Montoya-Rangel, C., Badenes, D., Mojal, S., & Gea, J. (2016). Impact of hyponatremia on mortality and

morbidity in patients with copd exacerbations. *Respiratory Medicine*, *117*, 237–242. https://doi.org/10.1016/j.rmed.2016.05.003

Corbett, J.V., Banks, A.D. (2019). *Laboratory tests and diagnostic procedures: With nursing diagnoses.* Pearson.

Jasper, A. E., McIver, W. J., Sapey, E., & Walton, G. M. (2019). Understanding the role of neutrophils in chronic inflammatory airway disease. *F1000Research*, *8*, 557. https://doi.org/10.12688/f1000research.18411.1

Kee, J. (2018). *Laboratory and diagnostic test with nursing implications (*10th ed.)., Pearson.

Koo, H.-K., Kang, H. K., Song, P., Park, H. K., Lee, S.-S., & Jung, H. (2017). Systemic white blood cell count as a biomarker associated with severity of chronic obstructive lung disease. *Tuberculosis and Respiratory Diseases*, *80*(3), 304. https://doi.org/10.4046/trd.2017.80.3.304

Moon, S. W., Leem, A. Y., Kim, Y. S., Lee, J.-H., Kim, T.-H., Oh, Y.-M., Shin, H., Chang, J., & Jung, J. Y. (2020). Low serum lymphocyte level is associated with poor exercise capacity and quality of life in chronic obstructive pulmonary disease. *Scientific Reports*, *10*(1), 11700. https://doi.org/10.1038/s41598-020-68670-3

Nugent, K., Islam, E., Limsuwat, C., Nantsupawat, T., & Berdine, G. (2015). The association between glucose levels and hospital outcomes in patients with acute exacerbations of chronic obstructive pulmonary disease. *Annals of Thoracic Medicine*, *10*(2), 94. https://doi.org/10.4103/1817-1737.151439

Sarah Bush Lincoln Health Center (2020). *Reference range (lab values).* Mattoon, IL.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

Chest X-Ray: Date 11/16/2020 Time: 1300 (Result: Shows possible pneumonitis right apical lung)

Indication for this diagnostic test was left-side chest pain due to shortness of breath. The patient's primary diagnosis was COPD exacerbation, and the health care provider ordered this test due to clinical presentation of persistent shortness of breath and chest pain. Results indicated possible pneumonitis in the right apical of the lung which suspects bacteria in the right upper lobe. Chest X-rays have a role in pulmonary congestion and help rule out pulmonary infections, malignancy, or fibrosis (Stokes & Roberts-Thomson, 2017). It is important to understand that x-rays does not reveal valvular heart disease and pulmonary arterial hypertension (Stokes & Roberts-Thomson, 2017).

Diagnostic Test Reference (APA):

Stokes, M. B., & Roberts-Thomson, R. (2017). Diagnostic tests: The role of cardiac imaging in clinical practice. *Australian Prescriber*, *40*(4), 151–155. https://doi.org/10.18773/austprescr.2017.045

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

Home Medications (5 required)

Brand/Generic	lisinopril/ Prinivil	clonazepam/ Clonapam	duloxetine hydrochloride/ Cymbalta	roflumilast/ Daliresp	prednisone/ Deltasone
Dose	10mg	1mg	60mg	250mg	10mg
Frequency	Daily	PRN	Daily	Daily	Daily
Route	PO	PO	PO	PO	PO
Classification	Angiotensin-Converting Enzyme (ACE) Inhibitor	Benzodiazepine	Selective serotonin and norepinephrine reuptake inhibitor	Selective phosphodiesterase 4 inhibitor	Glucocorticoid
Mechanism of Action	Reduce blood pressure by inhibiting conversion of angiotensin I to angiotensin II. Angiotensin II is a vasoconstrictor that stimulates secretion of aldosterone.	Prevent panic and seizures by potentiating the effects of gamma aminobutyric acid, which inhibits neurotransmitters.	Inhibits dopamine, neuronal serotonin, and norepinephrine reuptake to potentiate noradrenergic and serotonergic activity in the CNS.	Increases intracellular cycle in lung cells by inhibiting major cyclic AMP metabolizing enzyme in lung tissue to improve lung function.	Binds to intracellular glucocorticoid receptors and suppresses inflammatory and immune response.
Reason Client Taking	Treat hypertension	Anticonvulsant, anti-panic	Antidepressant for major depressive disorder	Reduce risk of COPD exacerbations in patients with COPD	Immunosuppressant, treat adrenal insufficiency and chronic inflammation
Contraindications (2)	Hereditary or idiopathic angioedema history of angioedema	Acute narrow angle glaucoma, hepatic disease	Chronic liver disease, hypersensitivity to duloxetine or	Hypersensitive to roflumilast, moderate to severe liver impairment	Hypersensitivity to prednisone or its components, systemic fungal infection

	related to previous ACE inhibitor, hypersensitivity to lisinopril or other ACE inhibitors.		components to severe renal impairment		
Side Effects/Adverse Reactions (2)	Arrhythmias, pulmonary embolism and infarction	Leukopenia, respiratory depression	Supraventricular arrhythmia, hypertensive crisis	Depression, atrial fibrillation	Hypertension, heart failure
Nursing Considerations (2)	Use cautiously with patients who have fluid volume deficit, heart failure, impaired renal function, or sodium depletion. Monitor blood pressure during the first 2 weeks of therapy when dosage is adjusted.	Monitor for suicidal thinking or behavior when dosage changes, Monitor blood drug level, CBC, and liver enzymes.	Obtain patient's baseline blood pressure before therapy starts, monitor patient's serum sodium level because drug can lower sodium levels.	Monitor effectiveness of reduced COPD exacerbation, Monitor patient's weight and notify provider of significant weight loss.	Administer once daily in the morning to match body's normal cortisol secretion schedule, assess regularly for signs of heart failure, and hypertension.

Hospital Medications (5 required)

Brand/Generic	aspirin/ Bayer	atorvastatin calcium/ Lipitor	enoxaparin/ Lovenox	pantoprazole/ Protorix	metoprolol/ Lopressor
Dose	81mg	10mg	40mg	40mg	25mg
Frequency	Daily	Daily	Daily	Daily	BID
Route	PO	PO	Subcutaneous	PO	PO

Classification	Salicylate, NSAID	HMG-CoA reductase inhibitor, antihyperlipidemic	Low molecular weight heparin	Proton pump inhibitor	Beta 1 adrenergic blocker
Mechanism of Action	Blocks cyclooxygenase, the enzyme needed for prostaglandin synthesis. It helps with inflammatory response and cause local vasodilation with swelling and pain.	Reduces plasma cholesterol and lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver and by increasing the number of LDL in the liver.	Binds with antithrombin III, enoxaparin rapidly binds with and inactivates clotting factors	Interferes with gastric acid secretion by inhibiting the hydrogen potassium adenosine triphosphatase enzyme system or proton pump in gastric parietal cells.	Inhibits stimulation of beta 1 receptor sites, located in the heart resulting in decreased cardiac excitability, cardiac output, and myocardial oxygen demands.
Reason Client Taking	Relieve mild pain or fever	To control lipid levels with diet	Anticoagulant, Treat DVT in patients with or without pulmonary embolism	Antiulcer, treat erosive esophagitis associated with GERD	Manage hypertension, alone or with other antihypertensives
Contraindications (2)	Active bleeding or coagulation disorders, hypersensitivity to aspirin or other NSAIDs	Active hepatic disease, hypersensitive to atorvastatin or other components	Active or major bleeding, history of heparin induced thrombocytopenia	Hypersensitive to pantoprazole, substituted benzimidazoles or other components	Acute heart failure, hypersensitivity to metoprolol or other beta blockers
Side Effects/Adverse Reactions (2)	Leukopenia, bronchospasms	Arrhythmias, hyperglycemia	Pulmonary edema or embolism, atrial fibrillation	Chest pain, leukopenia	Depression, arrhythmias
Nursing Considerations (2)	Do not crush timed-release or controlled release aspirin, Ask pt about tinnitus because this can occur when aspirin reaches or	Expect atorvastatin to be used in patients without coronary artery disease but with multiple risk factors like over the age of 55 and smoker,	Use drug with caution in patients who have a history of heparin-induced thrombocytopenia, use cautiously in patients with	Ensure continuity of gastric acid suppression during transition from oral to IV route, administer delated-release oral	Use cautiously in patients with angina or hypertension who have congestive heart failure, Use cautiously in patients with

	exceeds maximum dosage for therapeutic effect.	expect liver function test to be performed before atorvastatin therapy starts.	increased risk of hemorrhage	suspension 30 minutes before meal mixed in apple juice or apple sauce.	bronchospastic disease and give smaller doses more often to avoid high plasma levels.

Medications Reference (APA):

2020 Nurse's drug handbook. (2020). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**Alertness/Orientation:** A&O x 4 Pt was alert & orientated. Pt was able to verify his name, DOB, location (hospital), time, and event **Distress:** No **Overall appearance:** Pt was well-groomed and had a clean look.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	 **Skin color:** Pink **Character:** Warm, no lesions **Temperature:** Warm **Turgor:** Elastic, normal for age **Rashes:** None reported **Bruises:** None reported **Wounds:** None reported **Braden Score:** 19; No Risk
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**Head/Neck:** Thyroids are normal and usual for age, No tracheal deviation, No bulging lymph nodes **Ears:** Symmetrical, no earwax, tympanic membrane is pink and grey. **Eyes:** PERRLA, 3mm bilateral, pt's pupils constricted normally, EOM was normal for age **Nose:** None Reported **Teeth:** 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:**	**Heart sounds:** Regular S1, S2 sounds **Cardiac rhythm (if applicable):** Normal Sinus Rhythm **Peripheral Pulses:** 3+ **Capillary refill:** Normal, fingertips blanched white in less than 3 seconds
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Breath Sounds:** Clear **Location:** Anterior and posterior lung sounds **Character:** Normal for age **Respiratory Rate:** 18
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:**	**Diet at home:** Regular Diet **Current Diet:** Healthy Heart Diet **Height:** 168 cm **Weight:** 64 kg **Auscultation Bowel sounds:** Active all 4 quadrants **Last BM:** 11/17 **Palpation: Pain, Mass etc.:** None Reported **Inspection:** **Distention:** None Reported **Incisions:** None Reported **Scars:** None Reported **Drains:** None Reported **Wounds:** None Reported

GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	**Color:** Yellow **Character:** None reported **Quantity of urine:** Urine- 1050 mL **Inspection of Genitals:** 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: 50** **Activity/Mobility Status:** Dependent; 1 Assist **Independent (up ad lib)** ☐ 1 Assist **Needs assistance with equipment** ☐ **Needs support to stand and walk**☒	**Neurovascular status:** Oriented to own ability Pt was alert & orientated. Pt was able to verify his name, DOB, location (hospital), time, and event. **ROM:** Normal for age, active in all extremities **Supportive devices:** Walker **Strength:** Strong, Equal in all extremities **ADL Assistance: Y☒ N ☐** 1 Assist **Fall Risk: Y ☒ N☐** **Fall Score:** 50 **Activity/Mobility Status:** Pt is dependent and needs 1 assist
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☒** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**MAEW:** Equal strength in all extremities **PERRLA:** Yes, pupils constrict normally **Strength Equal:** Yes, Equal strength in all extremities **Orientation:** A&O x4 Pt was alert & orientated. Pt was able to verify his name, DOB, location (hospital), time, and event. **Mental Status:** Alert and oriented **Speech:** Clear **Sensory:** Intact **LOC:** Pt was alert and oriented
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):**	N/A Unable to assess

Vital Signs, 2 sets (5 points)

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

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0830	Numeric	None Stated	0/10	None Stated	None Stated
1100	Numeric	None Stated	0/10	None Stated	None Stated

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 22mm **Location of IV:** Left Arm, AC **Date on IV:** 11/17/2020 **Patency of IV:** Patent **Signs of erythema, drainage, etc.:** N/A **IV dressing assessment:** Clean, dry, intact	Saline Lock

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Unspecified Liquid- 850 mL (Oral) Total Input: 850 mL	Urine- 1050 mL Total Output: 1050 mL

Nursing Care

Summary of Care (2 points)

Overview of care: 66-Year-old white male patient presented to emergency room on 11/16/2020 with shortness of breath. Patient stated he has chest tightness and feels sharp and constant pain. The pain started on the left side of his chest and radiates to the center of his chest. Patient mentioned shortness of breath has been constant for about 1 to 2 weeks and was discharged from the hospital a couple weeks ago. Patient's primary diagnosis was chronic obstructive pulmonary disease exacerbation and secondary diagnosis was pneumonia. During the day, the patient's pain was managed through administration of medication, monitoring vital signs, auscultating breath sounds, calculating and documenting intake and output, promoted bed rest, and breathing/relaxation techniques.

Procedures/testing done: Patient had an order for a chest x-ray to view the patient's thoracic cavity. Results indicated possible pneumonitis in the right apical lung which suspects bacteria in the right upper lobe.

Complaints/Issues: Patient reported shortness of breath. Patient characterized pain in his chest as tight, sharp, and constant. The patient rated his pain as 0/10 on the numeric scale at 0830. At 1100, patient continued to rate his pain as a 0/10 on the numeric scale.

Vital signs (stable/unstable): Vital signs shows stability, but his blood pressure is high. Patient's blood pressure at 0830 was 147/98, and at 1100 it was 136/79.

Tolerating diet, activity, etc.: Patient is on a regular healthy heart diet and is on bedrest. Patient has shown no complications when eating meals.

Physician notifications: Notified health care provider of abnormal blood pressure and possible pneumonia in the right apical of the lung. Also notified the health care provider about the patient's previous discharge in the ED and current dyspnea complications.

Future plans for patient: Future plan for patient include monitoring patient's respirations and getting orders for continuous telemetry to monitor the patient's heart rhythms. Patient education regarding breathing techniques and lifestyle changes and how it can help minimize pain.

Discharge Planning (2 points)

Discharge location: Patient is going home with his spouse after discharge.

Home health needs (if applicable): None Reported

Equipment needs (if applicable): None Reported

Follow up plan: Patient is scheduled for lab tests like CBC and EKG on 12/16/2020 to follow up on the patient's overall health and check for heart dysrhythmias.

Education needs: Patient education for lifestyle changes and self-care is crucial for minimizing symptoms of COPD. Encourage patients to have a healthy heart diet by eating lots of fruits, vegetables, and stay hydrated as much as possible. Patient should participate in physical activity to strengthen the heart muscle as well as practice breathing exercises to control his breathing. Educating the patient about the importance of taking medication as prescribed is vital to the patient's health because this will ensure his shortness of breath is controlled.

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

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

diagnosis with "related to" and "as evidenced by" components	diagnosis was chosen		respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Ineffective Airway Clearance (Vera, 2019)	Related to bronchospasms as evidenced by patient stating continuous difficulty breathing (Vera, 2019).	**1.** Assess and monitor respirations and breath sounds noting rate, sounds, inspiratory and expiratory ratio (Vera, 2019). **2.** Observe sign and symptoms of infections and auscultate breath sounds noting adventitious breath sounds (wheezes, crackles, and rhonchi) (Vera, 2019).	-The patient responded well to the nurse's action. The patient reported being able to control his breathing. -Goal met, the client's response to the intervention was positive because his chest pain is relived and controlled.
2. Impaired Gas Exchange (Vera, 2019)	Related to altered oxygen supply as evidenced by dyspnea and abnormal breathing (Vera, 2019).	**1.** Assess and record respiratory rate depth and note the use of accessory muscles, pursed-lip breathing, and difficulty conversating (Vera, 2019). **2.** Monitor changes in the level of consciousness, mental status, vital signs, and cardiac rhythm (Vera, 2019).	-The patient responded well to the nurse's action and was able to report a decrease in chest tightness and dyspnea. -Goal met, the patient's response the intervention was positive because the patient was able to use breathing techniques to expand and contract his lungs more efficiently.
3. Ineffective Breathing Pattern (Vera, 2019)	Related to ineffective inspiration and expiration occurring with chronic airflow constraints as	**1.** Assess patient's respiratory status every 2 to 4 hours as indicated and notify provider of any abnormal changes (Vera, 2019).	-The patient responded well to the nurse's actions and was able to make necessary changes in his life to help him breathe easier.

	evidenced by nasal flaring and changes in vital signs (Vera, 2019).	**2**. Maintain patent airway, and auscultate breath sounds every 2 to 4 hours (Vera, 2019).	-Goal met, the client was able to speak clearly and identify treatments that can help control his symptoms and minimize further damage in his lungs.

Other References (APA):

Vera, M., (2019). *7 Chronic Obstructive Pulmonary Disease (COPD)*. Nurseslabs. https://nurseslabs.com/chronic-obstructive-pulmonary-disease-copd-nursing-care-plans/

Concept Map (20 Points):

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Subjective Data

Patient states, “I have chest tightness and it feels sharp, and constant. The pain started on the left side of my chest and it radiates to the center of my chest.”

Nursing Diagnosis/Outcomes

1. Ineffective airway clearance related to bronchospasms as evidenced by patient stating continuous difficulty breathing (Vera, 2019).
   +Goal met, the client’s response to the intervention was positive because his chest pain is relived and controlled (Vera, 2019).
2. Impaired gas exchange related to altered oxygen supply as evidenced by dyspnea and abnormal breathing (Vera, 2019).
   +Goal met, the patient’s response the intervention was positive because the patient was able to use breathing techniques to expand and contract his lungs more efficiently (Vera, 2019).
3. Ineffective breathing pattern related to ineffective inspiration and expiration occurring with chronic airflow constraints as evidenced by nasal flaring and changes in vital signs (Vera, 2019).
   +Goal met, the client was able to speak clearly and identify treatments that can help control his symptoms and minimize further damage in his lungs (Vera, 2019).

Objective Data

Vital Signs: P:84, B/P: 136/79, R:18, T: 36.6 (T), O: 95% (3L Nasal Canula), Pain: 0/10

Lab Results: RBC: 4.47, HgB: 14.3, Hct: 41.8 Platelets: 210, WBC: 11.8, Neutro: 11.3 Lymph; 3.2, Mono: 1.0, Na-: 133, K+: 4.5, Cl-: 100, CO2:22, Glucose: 112, BUN: 15, Creatine: 0.83

Diagnostic Test: Chest X-Ray, 11/16/2020, 1300 (Result: Shows possible pneumonitis right apical lung)

I&O:
Intake: 850mL (oral) (unspecified liquid)
Output: 1050mL (urine)

Patient Information

66-Year-old white male patient presented to emergency room on 11/16/2020 with shortness of breath. Patient has a history of COPD type a, hypertension, chronic respiratory failure, severe recurrent major depression. Patient’s past surgical history includes Mohs Surgery (2017). Patient’s family history includes Depression (Mother), Depression (Grandmother, Mom’s Side). Patient is also a former tobacco smoker (6/19/2017).

Nursing Interventions

1. Assess and monitor respirations and breath sounds noting rate, sounds, inspiratory and expiratory ratio (Vera, 2019).
2. Observe sign and symptoms of infections and auscultate breath sounds noting adventitious breath sounds (wheezes, crackles, and rhonchi) (Vera, 2019).
3. Assess and record respiratory rate depth and note the use of accessory muscles, pursed-lip breathing, and difficulty conversating (Vera, 2019).
4. Monitor changes in the level of consciousness, mental status, vital signs, and cardiac rhythm (Vera, 2019).
5. Assess patient’s respiratory status every 2 to 4 hours as indicated and notify provider of any abnormal changes (Vera, 2019).
6. Maintain patent airway, and auscultate breath sounds every 2 to 4 hours (Vera, 2019).

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