N431 Care Plan # 3

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 4/2/2021	**Patient Initials** MT	**Age** 61	**Gender** Female
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Married	**Allergies** No kown allergies
Code Status Full	**Height** 162 cm	**Weight** 56.3 kg	

Medical History (5 Points)

Past Medical History: elevated BNP, pneumonia, hypoxia, COPD exacerbation, tobacco use, cough, SOB

Past Surgical History: Patient denies any past surgical history

Family History: Patient denies any past family history

Social History (tobacco/alcohol/drugs): Patient states that she has smoked a ½ pack per day for the last 30 years. She denies any alcohol or drug use.

Assistive Devices: Patient denies use of any assistive devices

Living Situation: Patient lives at home with her husband. She has a great relationship with her children and they plan to help her after discharge.

Education Level: Bachelor's degree

Admission Assessment

Chief Complaint (2 points): shortness of breath and cough

History of present Illness (10 points): The patient is a 61-year-old woman with a history of COPD and tobacco use. She presented to the emergency room because of cough, difficulty breathing, and low O2 saturation. Her shortness of breath worsens upon activity. Patient states she was diagnosed with bronchitis in February. She felt much better after being placed on medication. Her symptoms returned a little over a week ago. Patients states a "tight feeling in the

bottom of lungs.” She also has a wet cough, sometimes accompanied by white/green sputum. Patient states that her O2 saturation at home is normally between 93-94%. While at home her O2 saturation got all the way down to 84%. She has been using ProAir and DuoNeb at home as needed. Patient states she had a fever on 3/29/2021.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Atypical pneumonia

Secondary Diagnosis (if applicable):.

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

Pathophysiology

Inhalation of droplets that contain bacteria or other types of pathogens causes pneumonia (Capriotti & Frizzell, 2016). The droplets enter through the upper airways and make their way to lung tissue (Capriotti & Frizzell, 2016). Other entry routes, such as blood-borne pathogens entering lung tissue through pulmonary capillaries, is possible (Hinkle & Cheever, 2018). No matter the source, the pathogens adhere to the respiratory epithelium and initiate inflammatory responses (Capriotti & Frizzell, 2016). The lower respiratory tract's inflammation leads to many changes that cause the different manifestations and symptoms of pneumonia (Capriotti & Frizzell, 2016). The site of inflammation attracts neutrophils, and vasodilation occurs (Capriotti & Frizzell, 2016). Excessive stimulation of respiratory goblet cells causes the secretion of mucus (Capriotti & Frizzell, 2016). Mucus begins to accumulate between alveoli and capillaries (Capriotti & Frizzell, 2016). Due to the increased mucus, some alveoli struggle to open and close (Capriotti & Frizzell, 2016). Crackles upon auscultation represent the alveoli struggling to open (Capriotti & Frizzell, 2016). There is also a layer of edema and infection at the capillary and

alveoli interface that prevents good gas exchange (Capriotti & Frizzell, 2016). Typically, the patient becomes hypoxic and hypercapnic (Capriotti & Frizzell, 2016).

Signs and Symptoms

Clinical manifestations of pneumonia depend on what pathogen caused the disease and any other underlying conditions (Hinkle & Cheever, 2018). Symptoms of bacterial pneumonia arise quickly with cough, fever, and chills (Capriotti & Frizzell, 2016). The patient for this care plan stated she had a fever on 3/21/2021. Other typical symptoms include pleuritic chest pain, tachypnea, shortness of breath, and the use of accessory muscle while breathing (Hinkle & Cheever, 2018). MT also experienced shortness of breath which is what led her to go to the emergency room. Symptoms experienced by all kinds of pneumonia include myalgia, headache, abdominal pain, nausea, vomiting, poor appetite, fatigue, and hypoxemia (Capriotti & Frizzell, 2018). Almost all individuals with pneumonia present with crackles in the lungs on auscultation (Hinkle & Cheever, 2018). At the time of assessment, the patient still presented with crackles in her lungs' lower lobes.

Expected Findings and Diagnostics

Diagnosis of pneumonia requires a physical assessment, laboratory data, and diagnostic imaging. A chest x-ray helps providers to visualize problems such as inflammation and fluid accumulation within the lungs (Capriotti & Frizzell, 2016). Sputum cultures detect the different microorganisms within the respiratory tract to identify the antibiotics they may be vulnerable to (Capriotti & Frizzell, 2016). Laboratory diagnostics indicative of pneumonia show increased white blood cell count and neutrophil count (Capriotti & Frizzell, 2016). Together they show inflammation from an infectious process (Hinkle & Cheever, 2018). Another diagnostic test used is blood culture—a blood culture checks for bacteremia caused by pneumonia. (Hinkle &

Cheever, 2018). Upon arrival to the emergency room, the patient received a chest x-ray and a complete blood count with differential. There were opacities noted on the x-ray and increased WBC and neutrophils on the complete blood count. This patient did not receive sputum or blood cultures.

Treatment

The most crucial treatment for pneumonia is antibiotic and oxygen therapy (Capriotti & Frizzell, 2016). Increasing oxygenation is acquired by keeping the patient in a high-fowlers position and providing supplemental oxygen if necessary (Capriotti & Frizzell, 2016). Patients who are dehydrated require IV fluids to regain hydration (Capriotti & Frizzell, 2016). Steroids help to reduce inflammation of the airway (Capriotti & Frizzell, 2018). In the emergency room, the patient received supplemental oxygen to improve her O2 saturation. She is receiving both azithromycin and ceftriaxone to treat bacterial pneumonia.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology: Introductory concepts and clinical perspectives.* 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	3.9 – 5.0	4.15	4.19	Normal lab value
Hgb	12.0 – 15.5	13.6	13.5	Normal lab value
Hct	35 – 45%	39.5%	39.5%	Normal lab value
Platelets	150,00 – 500,000	196,000	253,000	Normal lab value
WBC	4,500 – 11,000	17,000	16,200	Increased WBC count indicates and infection in the body (Capriotti & Frizzell, 2016). The patient has pneumonia which is a good indication of her elevated WBC count.
Neutrophils	45.3 – 79%	76.8%	79.5%	Elevated neutrophils are associated with inflammation and infection (Capriotti & Frizzell, 2016). This is due to the patient's diagnosis of pneumonia.
Lymphocytes	11.8 – 45.9%	13.9%	9.7%	Decreased lymphocyte counts are a result of infection or illness (Capriotti & Frizzell, 2016). The patient was diagnosed with pneumonia which is the reason for the decreased lymphocyte levels.
Monocytes	4.4 – 12.0%	7.6%	4.5%	Normal lab value
Eosinophils	0.0 – 6.3%	NA	1.1%	Normal lab value
Bands	0.0 – 5.0%	NA	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	137	141	Normal lab value
K+	3.5 – 5.0	3.6	3.7	Normal lab value

Cl-	98 – 108	101	99	Normal lab value
CO2	22 – 29	30	32	Increased CO2 levels are a result of not enough oxygen entering the lungs and not enough CO2 leaving the lungs (Capriotti & Frizzell, 2016). The patient is diagnosed with COPD which prevents her from getting enough oxygen in her lungs.
Glucose	70 – 100	98	87	Normal lab value
BUN	8 – 25	10	13	Normal lab value
Creatinine	0.6 – 1.2	0.6	0.6	Normal lab value
Albumin	3.5 – 5.0	3.8	3.7	Normal lab value
Calcium	8.6 – 10.4	9.2	8.9	Normal lab value
Mag	1.6 – 2.4	NA	NA	NA
Phosphate	2.5 – 4.5	NA	NA	NA
Bilirubin	0.0 – 1.2	0.3	0.2	Normal lab value
Alk Phos	35 – 105	94	90	Normal lab value
AST	0 – 35	14	24	Normal lab value
ALT	24-36	31	29	Normal lab value
Amylase	30 – 110	NA	NA	NA
Lipase	12 – 70	NA	NA	NA
Lactic Acid	0.5 – 2.2	2.5	1.5	When oxygen levels are low lactic acid production is increased (Capriotti & Frizzell, 2016). The patients O2 saturation was low due to her COPD and pneumonia. This is likely what caused her increased level of lactic acid.

Troponin	0 – 0.4	<0.010	NA	Normal lab value
CK-MB	0 – 4.9	NA	NA	NA
Total CK	22 – 198	NA	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	0.86 – 1.14	NA	NA	NA
PT	11.9 – 15	NA	NA	NA
PTT	25 – 40	NA	NA	NA
D-Dimer	<500	1.15	NA	Normal lab value
BNP	0 – 99	318	366	An elevated BNP level is typically associated with congestive heart failure (Capriotti & Frizzell, 2016). However, this patient does not have a diagnosis of heart failure. Increased BNP levels can sometimes be a secondary result of pulmonary problems such as hypoxia (Capriotti & Frizzell, 2016). This is more likely the cause due to the patient's diagnosis of COPD and pneumonia.
HDL	40 – 80	NA	NA	NA
LDL	65 – 125	NA	NA	NA
Cholesterol	<170	NA	NA	NA
Triglycerides	50 – 150	NA	NA	NA
Hgb A1c	<6%	NA	NA	NA
TSH	0.5 – 5	NA	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	Yellow/clear	NA	NA	NA
pH	5.0 – 8.0	NA	NA	NA
Specific Gravity	1.005 – 1.034	NA	NA	NA
Glucose	Normal	NA	NA	NA
Protein	Negative	NA	NA	NA
Ketones	Negative	NA	NA	NA
WBC	<5	NA	NA	NA
RBC	0-4	NA	NA	NA
Leukoesterase	Negative	NA	NA	NA

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	7.35 – 7.45	7.35	NA	Normal lab value
PaO2	80 – 100	33.3	NA	The patient presented with shortness of breath. Her low PaO2 is because her body is not receiving enough oxygen due to her pneumonia (Capriotti & Frizzell, 2016)
PaCO2	35 – 105	57.0	NA	Normal lab value
HCO3	22 – 26	26	NA	Normal lab value
SaO2	95 – 100	85	NA	Her low SaO2 levels are in relation

				to having difficulties breathing and not providing enough oxygen to the blood cells (Capriotti & Frizzell, 2016). After she arrived to the ER she was placed on 2L O2 which helped to bring her oxygen stats back to normal.

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative	NA	NA	NA
Blood Culture	Negative	NA	NA	NA
Sputum Culture	Negative	NA	NA	NA
Stool Culture	Negative	NA	NA	NA

Lab Correlations Reference (1) (APA):

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

Sarah Bush Lincoln. (2020). Laboratory values. *Cerner PowerChart.* Cerner

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

1. Echocardiogram without contrast: Results show a normal left atrium and ventricle with an ejection fraction of 65%. Mild tricuspid regurgitation with normal pulmonary systolic pressure. A grade 1 diastolic malfunction and a mildly dilated inferior vena cave.
2. CT chest with contrast: This test showed contrast opacification of pulmonary arteries. There was no evidence of embolus. Heart size was normal. There was moderate

mediastinal and bilateral hilar adenopathy. Nodular opacities present in both lungs with basilar predominance. Multiple areas of opacification present in the bronchi bilaterally. No pneumothorax or effusion noted.

3. Chest X-ray: Results showed normal heart size. There were diffuse bilateral interstitial opacities. No airspace consolidation noted. Also, no pneumothorax or effusion present.
4. EKG: This test resulted in sinus tachycardia.

Diagnostic Test Correlation (5 points):

1. Echocardiogram with contrast: This test was ordered because the patient has COPD and presented with tachycardia. An echocardiogram is a test that shows how the chambers and valves in the heart are pumping blood (Hinkle & Cheever, 2018). Electrodes are used to monitor the hearts rhythm and ultrasound tracks the movement of blood through the heart (Hinkle & Cheever, 2018).
2. CT-chest with contrast: This test was performed because was short of breath. Also, she complained of chest tightness and felt the pain radiating to her back. A chest CT shows a more detailed picture of the chest to help determine causes of different lung symptoms (Hinkle & Cheever, 2018). The chest CT shows the size, shape, and position of the lungs and other structures in the chest (Hinkle & Cheever, 2018).
3. Chest X-ray: this test was performed because the patient was short of breath. A chest x-ray allows providers to get a picture of the lungs and other structures within the chest (Hinkle & Cheever, 2018).
4. EKG: This test was ordered because the patient was tachycardic. An electrocardiogram (EKG) graphs the heart and its different cycles (Hinkle & Cheever, 2018). It helps to

diagnose conditions affecting the heart that present themselves through arrhythmias, wave patterns, increased or decreased intervals durations, and heart rate.

Diagnostic Test Reference (1) (APA):

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

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

Home Medications (5 required)

Brand/ Generic	Claritin/ loratadine	Proventil/ albuterol	Atrovent/ ipratropium bromide	Singulair/ monteluksat	Vibramycin/ doxycycline hyclate
Dose	10 mg	90mcg	17 mcg	10 mg	100 mg
Frequency	Once daily	Q4h	Q6h	Once daily	BID
Route	PO	Oral inhaler	Oral inhaler	Oral	Oral
Classification	Antihistamine	Chemical: selective beta2-adrenergic agonist Therapeutic: bronchodilator	Chemical: quaternary N methyl isopropyl derivative Therapeutic: anticholinergic, bronchodilator	Chemical: leukotriene receptor agonist Therapeutic: antiallergen, antiasthmatic	Chemical: oxytetracycline derivative Therapeutic: antibiotic
Mechanism of Action	Relieve immediate hypersensitivity reactions. Can also be used as antiemetics, antidyskinetics, antitussives, sedatives,	Attaches to beta2 receptors on bronchial cell membranes to stimulate an enzyme to convert ATP to cAMP. This decreases	Once acetylcholine is released from cholinergic fibers this medication prevents its from attaching to muscarinic receptors on	Blocks the effects of the enzymes that cause airway edema, smooth muscle contraction, altered activity of cells in asthma inflammatory	Has a bacteriostatic effect against many gram positive and gram negative organisms.

	or pre/postop analgesia's	intracellular calcium levels and increase cAMP levels which in turn relaxes bronchial smooth muscle cells and prevents histamine release	smooth muscle cells. This helps to relax smooth muscles and cause bronchodilation	process, and rhinitis	
Reason Client Taking	Allergic rhinitis	COPD	COPD	Allergic rhinitis	Bronchitis
Contraindications (2)	Patients taking drugs that prolong the QT interval. Hypersensitivity reactions to antihistamines or their component	Patients with diabetes High blood pressure	Hypersensitivity to atropine Hypersensitivity to peanuts, soy lecithin, soybeans, or related products	Hypersensitivity reaction High blood pressure	Hypersensitivity reaction Hypersensitivity to tetracycline
Side Effects/Adverse Reactions (2)	Dry mouth, nosebleed	Dyspnea, hypokalemia	Cough, increased sputum production	Anxiousness, cough	Nausea, anaphylaxis
Nursing Considerations (2)	Use carefully in patients with history of glaucoma, peptic ulcer, or urine retention. Monitor	Administer medication during the second half of inspiration when the airways are open wider, and distribution	Use cautiously in patients with angle-closure glaucoma, BPH, or bladder neck dysfunction as well as patients with hepatic or	Monteluksat should not be substituted for inhaled or oral corticosteroids. Watch patient closely for suicidal tendencies.	Give medication without regards to meals. Food and milk may delay absorption but don't reduce it. Use oral suspension carefully in

	patients' blood pressure because it can cause hypertension.	is more effective. Drug tolerance can develop with prolonged use	renal dysfunction. If using a nebulizer, use a mouthpiece to prevent the drug from leaking out of mask and causing blurred vision or eye pain.		patients with allergic to sulfites.
Key Nursing Assessment(s) /Lab(s) Prior to Administration	Assess patient for hypokalemia and correct the imbalance before administration of the medication	Monitor serum potassium levels.	Monitor patient for hypersensitivity reactions that could be life threatening.	Monitor for adverse reactions such as eosinophilia, cardiac and pulmonary symptoms, and vasculitis.	Monitory liver function test results as appropriate to detect hepatotoxicity.
Client Teaching needs (2)	Avoid alcohol and other CNS depressants while using this medication. Take the medication with food because it can cause GI upset.	Instruct patient to wash mouthpiece with water once a week and let it air dry Do not exceed prescribed dose or frequency. If doses become less effective contact healthcare provider.	Do not use to treat acute bronchospasm. Some people may feel relief within 24 hours of drug use, but maximum therapeutic effect takes up to 2 weeks.	Take daily as prescribed. Do not decrease dosage or stop taking other prescribe allergy medications unless instructed by healthcare provider. Report increased bleeding tendencies or skin reactions.	Drink plenty of fluids when taking this medication to prevent esophageal irritation. Report watery, bloody stools immediately even after drug therapy has ended.

Hospital Medications (5 required)

Brand/ Generic	Lovenox/ enoxaparin sodium	Flonase/ fluticasone	Rocephin/ ceftriaxone	Pulmicort/ budesonide	Zithromax/ azithromycin
Dose	40mg	1 spray (50 mcg)	1000 mg	0.25 mg/2 mL	500 mg
Frequency	Once daily	Once daily	Once daily	BID	Once daily
Route	SQ injectable	Nasal	IV	Oral inhalation	IV
Classification	Chemical: low molecular weight heparin Therapeutic: antithrombotic	Chemical: trifluorinated corticosteroid Therapeutic: antiasthmatic, anti-inflammatory	Chemical: third generation cephalosporin Therapeutic: antibiotic	Chemical: glucocorticoid Therapeutic: antiasthmatic, anti-inflammatory	Chemical: Asalide Therapeutic: Antibiotic
Mechanism of Action	Allows antithrombin III to work by binding with it, allowing inactivation of clotting factors. It prevents fibrinogen from converting to fibrin which prevents clots from forming.	Inhibits cell that are involved in the inflammatory response of asthma. Prevents the production and secretion of chemical mediators like cytokines, histamines, and leukotrienes.	Prevents bacterial cell wall synthesis by stopping the cross linkage of peptidoglycan strands. These strands make the bacteria membrane rigid and protective. Without it the cells rupture and die.	Prevents inflammatory cells and mediators by decreasing their invasion into nasal passages, bronchial walls, and intestines. This causes nasal and airway inflammation to decrease.	Binds to ribosomes on bacteria inhibiting RNA protein synthesis.
Reason Client Taking	Blood clot prevention	Allergic rhinitis	Pneumonia	Pneumonia, COPD	Pneumonia
Contraindications (2)	Active or major	Hypersensitivity to	Calcium containing IV	Hypersensitivity reactions	History of hepatic

	bleeding History of HIT or immune mediated HIT	fluticasone or milk proteins. Untreated nasal mucosa infection	solutions Hypersensitivity reaction	 Recent septal ulcers, nasal surgery, or trauma	dysfunction Hypersensitivity reactions
Side Effects/ Adverse Reactions (2)	Nausea, pneumonia	chest congestion, restlessness	Dyspnea,	Increased cough, Increased risk of infection	Fatigue, leukopenia
Nursing Considerations (2)	Do no give drug by IM injection. Use cautiously in patient with renal impairment or insufficiency	Use cautiously inpatients with ocular herpes simplex, pulmonary tuberculosis, untreated systemic bacterial, fungal, parasitic, or viral infections. If bronchospasm occurs, administer a fast-acting bronchodilator and expect to stop fluticasone therapy.	Obtain culture and sensitivity results if possible and as ordered before giving drug. For IV use, reconstitute with an appropriate dilutant such as sterile water or sodium chloride. Never use a dilutant that contains calcium such as Ringer's solution	Use cautiously if patients has ocular herpes simplex, tubercular infection, or untreated fungal, bacterial, or systemic viral infection. Administer respules by jet nebulizer connected to an air compressor.	Obtain culture and sensitivity test results before starting therapy. Do not give medication by IV bolus or IM injection because it may cause erythema, pain, swelling, tenderness, or other reactions at the site. Infuse it over 60 minutes or longer.
Key Nursing Assessment(s) /Lab(s) Prior to Administration	Monitor bleeding and clotting times as well as platelet count and creatinine	Monitor patient at the start of therapy, especially if the patient has an	Monitor BUN and serum creatinine levels to help detect early signs of nephrotoxicit	Assess patients for adrenal insufficiency (fatigue, hypotension, lassitude,	Monitor liver enzymes closely.

		allergy to milk.	y. Assess CBC, hematocrit, and serum alkaline phosphate levels, AST, ALT, bilirubin, and LD levels during long term therapy. If abnormalities occur notify provider.	nausea, committing, weakness) which may be life threatening. Stopping budesonide abruptly may cause adrenal insufficiency.	
Client Teaching needs (2)	Inform patient that taking aspirin or other NSAIDS can increase risk of bleeding. Patient may be more susceptible to bruising and bleeding. Important to review	Use regularly as prescribed and inform the patient that the medication is not to be used for bronchospasm. Remind the patient to shake the	Report water, bloody stools to provider immediately, even after discontinuing the medication. Report evidence of blood dyscrasia or superinfection to provider immediately	Do not use oral inhaler with a spacer device. Rinse mouth with water after each orally inhaled dose and to spit the water out.	Report signs and symptoms of an allergic reaction immediately. Consult provider before taking and OTC drugs.

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2019). *Nurses drug handbook*

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:**	The patient was ANO x 4. She was oriented to self, location, time, and situation. During the assessment, the patient was dressed in her street

Distress: **Overall appearance:**	clothes and appeared very put together. She was able to respond to all questions asked and did not seem to be in any distress.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Braden score: 23 (no risk) The patient's skin was normal for her ethnicity. Upon palpation it was warm, dry, and intact with elastic turgor. No rashes, bruises, or wounds present. There were no drains present.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	The patients head was normocephalic. Trachea and uvula were midline. Oral mucosa was pink, moist and intact. There was no tonsil exudate noted. Tympanic membranes were pearly grey, intact, and without drainage bilaterally. Pupils were equal, round, reactive to light, and accommodate. Septum was midline with no notice of epistaxis. All teeth were intact with no abnormalities noted
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 were auscultated with a normal rate and rhythm. Radial and pedal pulses were noted at 3+ bilaterally. Capillary refill was less than 3 seconds bilaterally in the upper extremities. No jugular vein distention noted. The patient did not have any edema.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	The patient had a normal respiratory rate of 20 breaths per minute. She displayed no signs of accessory muscle use. Crackles were heard in the anterior and posterior lower lobes, bilaterally upon auscultation. All other anterior and posterior lobes were clear upon auscultation bilaterally. Cough noted during assessment. SpO2 was 92% on room air.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:**	The patient is on a regular diet at home and in the hospital. She is 162 cm and 56.3 kg. Bowel sounds were active in all 4 quadrants. Her last bowel movement was on 4/4/2021. Here abdomen was soft with no distention, incisions,

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:**	scars, drains, or wounds. The patient does not have an ostomy. There is no NG or feeding tubes present. No discomfort was note during assessment.
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	The patient's urine was yellow and clear. Her output was not being measured. Patient denies any pain with urination. There was not bladder distention noted. Patient was not on dialysis and did not have a catheter.
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 ☐**	Fall score: 35 (moderate risk) Patient was alert and oriented to self, location, time, and situation. She was able to perform full range of motion with her upper and lower extremities bilaterally. Strength in the upper and lower extremities is 5/5 bilaterally. Patient can independently complete activities of daily living. She is considered a moderate fall risk because she has multiple diagnoses and is receiving IV therapy. Patient is up ad lib and requires no assistance with mobility.
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:**	The patient was able to move all extremities well. Her pupils were equal, round, reactive to light, and accommodate. She displayed 5/5 strength bilaterally in her upper and lower extremities. The patient responded to all question with clear speech and no deficits in cognition or memory. Her sensorium is intact. She was ANO x4.

Sensory: **LOC:**	
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):**	The patient relies on her family as her support. Her husband and children are very helpful and care for her when she needs it. Her daughter came to the hospital to help her with discharge. She is Methodist and goes to church every weekend.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1150	92	160/77	18	35.9 C	92% room air
1406	92	165/72	20	36.4 C	92% room air

Vital Sign Trends:

The patient's vital signs were pretty consistent. At both sets of vitals her systolic blood pressure was elevated. Her echocardiogram showed a grade 1 diastolic malfunction which could be causing her increased blood pressure. It could also be caused by some of her medications such as her glucocorticoid that she is taking. The patient did mention that her blood pressure is not normally this high at home. She has a history of COPD and is in the hospital for pneumonia. This is likely the cause of her decreased O2 saturation. Patient stated that at home her O2 is normally between 93 – 94%.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions

1150	Number	Patient denies pain	0/10	Patient denies pain	No intervention needed
1406	Number	Patient denies pain	0/10	Patient denies pain	No intervention needed

IV Assessment (2 Points)

IV Assessment	**Fluid Type/Rate or Saline Lock**
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	20-gauge saline lock in the right wrist dated 04/02/2021. The IV is patent and flushes with no signs of erythema or drainage noted. The dressing is clean, dry, and intact.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
960 mL oral	Patient's output was not being measured.

Nursing Care

Summary of Care (2 points)

Overview of care: After report, the patient's vitals were taken, and her head-to-toe assessment was performed. After the assessment, the patient waited on the pulmonologist to make his rounds. After she met with the pulmonologist, we were able to start her discharge paperwork. Her 2:00 clock meds were given to her and shortly after we took out her IV and went over discharge with her. The patient discharged around 3:00. Her daughter picker her up.

Procedures/testing done: There were no procedures or testing performed on the patient during clinicals.

Complaints/Issues: The patient is excited to be discharged today. She is worried about having to use home oxygen.

Vital signs (stable/unstable): Vital signs were pretty consistent. Her blood pressure was elevated at both sets of vitals. Her O2 saturation was decreased at both sets of vitals.

Tolerating diet, activity, etc.: Patient is tolerating diet well. Her O2 saturation drops upon activity. She is being sent home with a prescription for home oxygen at 2L via nasal cannula to be used with activity.

Physician notifications: The pulmonologist met with the patient to go over needs once discharged.

Future plans for patient: The patient was discharged during this afternoon. She is to use oxygen upon activity to help with her O2 saturation. She is also going to need to continue medication therapy.

Discharge Planning (2 points)

Discharge location: The patient is planning to go home. Her daughter picked her up. Her husband will help her when he is done with work.

Home health needs (if applicable): The patient needs to use oxygen at home. She was discharged with oxygen but will need to contact the company to arrange for replacement tanks.

Equipment needs (if applicable): The patient requires an oxygen tank, nasal cannula, and tubing.

Follow up plan: The pulmonologist recommended her to follow up with him in his office. She was also recommended to follow up with her primary care physician.

Education needs: The patient was educated on the importance of returning to the hospital if her O2 saturation and shortness of breath isn't improved with the use of the nasal cannula. She was also instructed on how to set up the oxygen tank and nasal cannula tubing. She was instructed not to use more than 2L of oxygen when in use.

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. Impaired gas exchange related to oxygen supply and alveolar-capillary membrane changes occurring with inflammatory process and exudate in the lungs as evidence by low O2 saturation levels.	The patients O2 saturation levels are on the lower side to begin with and upon exertion drop even lower.	**1.**Monitor and document vital signs every 2-4 hours or as indicated by patient's condition. Report significant findings **2.**Position patient for comfort, usually in high-fowlers position.	The patient vital signs have been monitored every 4 hours in the hospital. Her O2 saturation is still a little low, but has improved since being admitted. The patient is tolerating the treatment well and has started using oxygen upon activity to help with O2 levels.
2. Ineffective breathing pattern related	The patient is diagnosed with COPD. The added	**1.** Monitor patients' response to O2 therapy. Titrate	Bronchodilator therapy is helping improve the patients breathing.

to decreased lung expansion occurring with chronic airflow limitations as evidence by feeling short of breath.	diagnosis of pneumonia has inhibited the patients breathing making her feel short of breath and have decreased O2 levels.	oxygen to keep level above 90%. **2.**Administer bronchodilators as needed.	Oxygen therapy is improving her saturation, especially during exertion. Patient states she doesn't feel short of breath anymore.
3. Activity intolerance related to imbalance between oxygen supply and demand due to inefficient work of breathing as evidence by patients decreased O2 levels during activity.	The patient's diagnosis of COPD and pneumonia have caused her to have decreased O2 saturation and difficulty breathing.	**1.** Monitor patients' respiratory response to activity including assessment of oxygen saturation. **2** Maintain prescribed activity levels and explain rationale to patient	Patient has started wearing 2L of oxygen during activity. Patient was reluctant at first, but understands that it will help increase her activity levels and be more independent.
4. Fatigue related to disease process, treatment, medications, depression, or stress as evidence by patient's extra treatment needs after discharge.	The patient is going home on oxygen. She has stated how she is not looking forward to having to use oxygen and was slow to agree to it at first.	**1.** Discuss with patient how to delegate cores to family and friends who are offering to assist. **2.** Encourage patient to maintain a regular schedule once discharged. Recognizing that attempting to continue previous activity levels may not be realistic.	The patient is still worried about not being able to keep up with her desired activity levels. The importance of allowing her body to heal was discussed and the patient understood. She plans on accepting help from family and creating a schedule allowing for more healing time, but still allowing activity when necessary.

Other References (APA):

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: Medical-*

surgical, pediatric, maternity, and psychiatric-mental health. Elsevier.

Concept Map (20 Points):

Subjective Data

Short of breath
Cough
Fever
Difficulty breathing with activity
Bronchitis in February
Lives at home with husband
Good family support

Objective Data

Opacities on chest Xray
Opacities on CT of chest
Elevated WBC
Elevated neutrophils
2L O2 prescribed for activity
COPD
Oxygen saturation of 92%

Patient Information

Female, age 61
History: elevated BNP, pneumonia, hypoxia, COPD, tobacco use, cough, shortness of breath.
Presented to ER on 4/2/2021 with complaint of feeling short of breath and having a cough. She was previously diagnosed with bronchitis that improved with treatment. Her O2 saturation upon arrival at the ER was 84%.

Nursing Diagnosis/Outcomes

Impaired gas exchange related to oxygen supply and alveolar-capillary membrane changes occurring with inflammatory process and exudate in the lungs as evidence by low O2 saturation levels.
Outcome: The clients oxygen saturation will increase to over 92% by the time of discharge
Ineffective breathing pattern related to decreased lung expansion occurring with chronic airflow limitations as evidence by feeling short of breath.
Outcome: Throughout the shift, the patients O2 saturation will be over 92% after each breathing treatment.
Activity intolerance related to imbalance between oxygen supply and demand due to inefficient work of breathing.
Outcome: While walking up and down the hall, the patients O2 saturation will not drop below 92%.
Fatigue related to disease process, treatment, medications, depression, or stress as evidence by patient's extra treatment needs after discharge.
Outcome: Before discharge, the patient will agree to using oxygen to increase her activity levels and improve her oxygenation.

Nursing Interventions

Monitor and document vital signs every 2-4 hours or as indicated by patient's condition. Report significant findings.

2.Position patient for comfort, usually in high-fowlers position.

Monitor patients' response to O2 therapy. Titrate oxygen to keep level above 90%.

2.Administer bronchodilators as needed.

Monitor patients' respiratory response to activity including assessment of oxygen saturation.

2 Maintain prescribed activity levels and explain rationale to patient

Discuss with patient how to delegate cores to family and friends who are offering to assist.

2. Encourage patient to maintain a regular schedule once discharged. Recognizing that attempting to continue previous activity levels may not be realistic.