N431 Care Plan #3

Lakeview College of Nursing

Morgan Phillips

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
04/09/21	**G.C**	**61**	**Male**
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White/ N/A ethnicity	**Not employed**	**Single**	**NKA**
Code Status	**Height**	**Weight**	
Full Code	**165cm**	**57.7kg**	

Medical History (5 Points)

Past Medical History: Vitamin B12 deficiency, Chronic Kidney Disease, DM type II, enlarged prostate, hypertension, history of elevated PSA, hypothyroidism, neutropenia, PE, pneumonia, Retinitis Pigmentosa

Past Surgical History: History of hip surgery, simple dental extraction

Family History: Maternal Vitamin B12 deficiency

Social History (tobacco/alcohol/drugs): No tobacco use/ No alcohol use/ No drug use

Assistive Devices: N/A

Living Situation: Client lives at home with his mother, two sisters, and one brother.

Education Level: Client has a documented developmental delay but does attend C-Car.

Admission Assessment

Chief Complaint (2 points): Client sent to ER from urology clinic for shortness of breath, low SPO2, and Tachycardia

History of present Illness (10 points): Client is a 61-year-old male with intellectual disability who is legally blind. This client was presented to the ED after being seen in the urology clinic for urinary retention. While in urology the client was found to be short of breath and hypoxic. The client was noted to have an increased heartrate around 120-130 with a pulse oximetry sitting between 85%-90%. on room air. When asked about the onset of the shortness of breath, the

client could not recall due to being a poor historian from the intellectual disability. The mother who is the client's caretaker, stated that she has not noticed the client being short of breath at home until they were at the urology clinic. Client's conditions worsen with exertion and oxygen administration helps to treat the shortness of breath. At the time of admission to the ED the client had an indwelling urinary catheter placed to relieve the urinary retention.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Pneumonia

Secondary Diagnosis (if applicable):N/A

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

This client is struggling with an illness called pneumonia. Pneumonia is an inflammation of the lung tissue in which alveolar air-spaced fill with purulent, inflammatory cells and fibrin (Capriotti & Frizzell, 2016). Pneumonia infections are either by bacteria or a virus being the most common causes, although aspiration of contents or infection by other agents such as fungi and yeasts may occur (Capriotti & Frizzell, 2016).

As mentioned above, pneumonia is mainly caused by the inhalation of droplets of bacteria or other pathogens (Capriotti & Frizzell, 2016). For infection to happen, the bacteria will enter through the upper airways and then advance into the lung tissue (Capriotti & Frizzell, 2016). Once the pathogens enter the lung tissue, they will adhere to the respiratory epithelium and stimulate an inflammatory reaction (Capriotti & Frizzell, 2016). This inflammation is then spread to the lower respiratory tract and alveoli (Capriotti & Frizzell, 2016).

There is excessive stimulation of respiratory goblet cells that cause and increase mucus (Capriotti & Frizzell, 2016). Together, mucus and exudate edema compile between alveoli and

capillaries, which cause the alveoli to be blocked (Capriotti & Frizzell, 2016). When listening with a stethoscope, the crackling sound you hear is what the alveoli are attempting to open against the exudate edema (Capriotti & Frizzell, 2016). It is also noted that there is a layer of edema and infectious exudate at the capillary-alveoli section that causes poor optimal gas exchange (Capriotti & Frizzell, 2016). This poor optimal gas exchange can cause the patient to become hypoxic and hypercapnic with the obstructed exchange of O2 and CO2 at the pulmonary capillaries (Capriotti & Frizzell, 2016).

When looking at the client's clinical presentation and signs and symptoms, it is vital to assess the client's past exposure to other ill individuals and evaluate if they have any aspiration risks or immunosuppression factors (Capriotti & Frizzell, 2016). Looking at the client's past medical history is also essential to assess the client's susceptibility to pneumonia, such as having a medical history of allergies, asthma, or COPD (Capriotti & Frizzell, 2016). It is also noted that bacterial pneumonia is often first presented with a cough, fever, and chills (Capriotti & Frizzell, 2016). The cough the client shows may be productive of sputum or may not be effective (Capriotti & Frizzell, 2016). Some other signs and symptoms of pneumonia include shortness of breath, possible chest pain that is worsening with coughing, feelings of tiredness/fatigue, loss of appetite, and nausea or vomiting (Normandin, 2016). When focusing on this client, he matched these symptoms very well. This client was short of breath, had a cough and chills. The client also started losing his appetite, which is likely because he is short of breath, making eating hard for the client. This client also vomited during his stay, which is seen with pneumonia from phlegm build-up and secretions (Normandin, 2016).

When focusing on the client's vital signs, it is noted that tachycardia, tachypnea, low oxygen saturation, and increased respirations are all expected for clients who are ill with

pneumonia (Capriotti & Frizzell, 2016). This client was tachycardic, tachypnea with increased respirations and low oxygenation saturation. This client was stating between 85%-90% on admission. The client's vitals from today were slightly unstable with showing signs of tachycardia. The client's oxygen saturation is not where we would like it to be. However, it is not abnormal because it is above 92%. Some expected lab findings include bacterial or viral infection showing on the CBC along with the ABG showing low oxygenation status (Capriotti & Frizzle, 2016). This client's CBC showed an increase in white blood cells and monocytes, indicating an infection that is likely caused by the client's pneumonia (Capriotti & Frizzell, 2016). The client's ABG was slightly abnormal, with the PaO2 being low, indicating the oxygenation status is low for this client. It is also essential to look at the client's cultures if possible because it should be compatible with pneumonia, especially a sputum culture (Capriotti & Frizzell, 2016). This client only had a blood culture assessed. However, there was no growth in the blood culture.

Diagnosing this illness is most assessed with a chest x-ray, as this test is the most important diagnostic study in pneumonia diagnosis (Capriotti & Frizzell, 2016). The CBC with differential will be vital in showing whether the infection is bacterial or viral (Capriotti & Frizzell, 2016). ABG's and pulse oximetry will be essential in showing the client's oxygen demonstration (Capriotti & Frizzell, 2016). Sputum culture and sensitivity will show the organism and the antibiotic susceptibility (Capriotti & Frizzell, 2016). This client had a chest X-ray that was compatible with opacities on his lungs, which indicates pneumonia. This client's ABG and pulse oximetry were both compatible for low oxygenation, which is expected with pneumonia (Capriotti & Frizzell, 2016). As mentioned before, the client did not have a sputum culture assessed.

Key treatment of this illness is done with antibiotic therapy and the patient's oxygenation (Capriotti & Frizzell, 2016). Positioning this client is also crucial to ensure the client is getting optimal lung expansion (Capriotti & Frizzell, 2016). Positions that help with lung expansion would include fowlers position or tripod position (Capriotti & Frizzell, 2016). Oxygen administration should be administered through nasal canula or mask (Capriotti & Frizzell, 2016). It is also noted that analgesia, antipyretics IV fluids for dehydration, and bronchodilators may be needed (Capriotti & Frizzell, 2016). This client is treated with 3L of oxygenation and Azithromycin as the antibiotic used to fight the infection. Remember that older adults may be eligible for the pneumonia vaccine to help prevent pneumonia illnesses for the older age (Capriotti & Frizzell, 2016).

Pathophysiology References (2) (APA):

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

Normandin, B. (2016). *Pneumonia: symptoms, causes, treatment, and more.* Healthline. www.healthline.com/health/pneumonia.

Laboratory Data (15 points)

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

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	**4.28-5.56**	**3.87**	**3.77**	**This client's red blood cell count is low because the client has vitamin B12 deficiency and because the client has CKD which means the blood isn't filtering out properly (National Institute of Diabetes and Digestive and Kidney Diseases, 2019).**

Hgb	**13.0-17.0**	**13.2**	**12.6**	**Client's hgb is low due to client's low RBC's from client's Anemia (Balentine & Nabili, 2016).**
Hct	**38.1-48.9**	**36.7**	**36.5**	**Client's hct is low due to love RBC count from client's Anemia (Balentine & Nabili, 2016).**
Platelets	**149-393**	**163**	**176**	
WBC	**4.0-11.7**	**3.8**	**3.4**	**Client's WBC is elevated due to client's diagnosis of pneumonia and client could also have an infection that is causing the client's urinary retention (Mayo Clinic, 2020).**
Neutrophils	**45.3-79.0**	**46.6**	**42.4**	**This client's neutrophils are low due to client' previous diagnosis of neutropenia (Felson, 2020).**
Lymphocytes	**11.8-45.9**	**31.9**	**35.4**	
Monocytes	**4.4-12.0**	**18.3**	**16.9**	**This client's monocytes were elevated because of the client's pneumonia infection in his lungs (Pietrangelo, 2019).**
Eosinophils	**0.0-6.3**	**2.1**	**4.7**	
Bands	**0.0-5.0**	**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**	**136**	**136**	
K+	**3.5-5.1**	**4.0**	**3.9**	
Cl-	**98-107**	**100**	**98**	
CO2	**21-31**	**28**	**26**	
Glucose	**74-109**	**140**	**144**	**This client's glucose is elevated due to client's diagnosis of diabetes type II (Hinkle & Cheever, 2018)**
BUN	**7-25**	**16**	**12**	

Creatinine	**.70-1.30**	**1.01**	**0.92**	
Albumin	**3.5-5.2**	**4.1**	**N/A**	
Calcium	**8.6-10.3**	**9.3**	**8.7**	
Mag	**1.6-2.4**	**1.6**	**N/A**	
Phosphate	**3.0-4.5**	**N/A**	**N/A**	
Bilirubin	**0.3-1.0**	**0.4**	**N/A**	
Alk Phos	**34-104**	**63**	**N/A**	
AST	**13-39**	**13**	**N/A**	
ALT	**7-52**	**7**	**N/A**	
Amylase	**30-222**	**N/A**	**N/A**	
Lipase	**11-82**	**N/A**	**N/A**	
Lactic Acid	**0.5-2.0**	**N/A**	**N/A**	
Troponin	**0.0-6.30**	**<0.010**	**N/A**	
CK-MB	**0.60-6.30**	**N/A**	**N/A**	
Total CK	**30-223**	**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	**0.86-1.14**	**N/A**	**N/A**	
PT	**11.9-15.0**	**N/A**	**N/A**	
PTT	**22.6-35.3**	**N/A**	**N/A**	

D-Dimer	**0.00-0.62**	**0.30**	**N/A**	
BNP	**0-100**	**20**	**N/A**	
HDL	**>55**	**N/A**	**N/A**	
LDL	**<130**	**N/A**	**N/A**	
Cholesterol	**<200**	**N/A**	**N/A**	
Triglycerides	**35-135**	**N/A**	**N/A**	
Hgb A1c	**4-5.9**	**N/A**	**N/A**	
TSH	**0.5-5.33**	**N/A**	**N/A**	

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Yellow & clear**	**Light yellow & Clear**	**N/A**	
pH	**5.0-8.0**	**6.5**	**N/A**	
Specific Gravity	**1.005-1.034**	**1.012**	**N/A**	
Glucose	**Negative**	**Normal**	**N/A**	
Protein	**Negative**	**Negative**	**N/A**	
Ketones	**Negative**	**Negative**	**N/A**	
WBC	**<5**	**N/A**	**N/A**	
RBC	**0-4**	**N/A**	**N/A**	
Leukoesterase	**Negative**	**Negative**	**N/A**	

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings

pH	**7.35-7.45**	**7.43**	**N/A**	
PaO2	**80.0-90.0**	**63.1**	**N/A**	**This client has a low PacO2 due to client's hypoxia from the pneumonia (Hinkle & Cheever, 2018)**
PaCO2	**35.0-45.0**	**35.6**	**N/A**	
HCO3	**22-26**	**24.1**	**N/A**	
SaO2	**95-98**	**92.3**	**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	**Negative**	**N/A**	**N/A**	
Blood Culture	**Negative**	**Negative**	**N/A**	
Sputum Culture	**Negative**	**N/A**	**N/A**	
Stool Culture	**Negative**	**N/A**	**N/A**	

Lab Correlations Reference (1) (APA):

Balentine, J., & S. Nabili. (2016). *Anemia types, treatment, symptoms & cause*. MedicineNet, www.medicinenet.com/anemia/article.htm.

Felson, S. (2020). *Neutropenia: causes, symptoms, and treatment*. WebMD. www.webmd.com/a-to-z-guides/neutropenia-causes-symptoms-treatment#:~:text=Causes%20of%20decreased%20production%20of.

Hinkle, J.L., and Cheever, K.H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing*. Lippincott Williams & Wilkins.

Mayo Clinic. (2020). *High white blood cell count causes*. Mayo Clinic. www.mayoclinic.org/symptoms/high-white-blood-cell-count/basics/causes/sym-20050611#:~:text=A%20high%20white%20blood%20cell.

National Institute of Diabetes and Digestive and Kidney Diseases. (2019). *Anemia in chronic kidney disease*. National institute of diabetes and digestive and kidney diseases. www.niddk.nih.gov/health-information/kidney-disease/anemia.

Pietrangelo, A. (2019). *Monocytes high: what does it mean if monocytes are elevated?* Healthline. www.healthline.com/health/monocytes-high#:~:text=When%20your%20monocyte%20level%20is.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): & Diagnostic Test Correlation (5 points):

EKG: Client received an EKG in the emergency department for indications of shortness of breath. This testing is done because a shortness of breath can be an indication of a pulmonary embolism or other heart issues (Mayo Clinic, 2020). The findings of this test indicate sinus tachycardia.

Chest X-Ray: Client received a chest X-ray to look at the client's lungs because the client is short of breath and his oxygen saturation is low, indicating he is not receiving adequate oxygen flow. This client has a known history of pulmonary embolisms, so getting these tests were crucial. This test will help to visualize the client's lungs and get a better view at his respiratory system and lungs for possible alarming conditions (Hinkle & Cheever, 2018). When reviewing

the findings for the chest X-ray, it was determined that the client's heart size is normal but there is minimal left basilar atelectasis. There is no visualization of a pneumothorax or pleural effusion and osseous structure are intact.

CT Angio Chest Pulmonary with Contrast: This test is indicated for this client due to the client showing signs of shortness of breath, hypoxia, and a history of a pulmonary embolism. This test takes a closer look at the blood vessels in the client to ensure there is no presence of a pulmonary embolism. The findings of this test indicates that the lungs are negative for focal consolidation, pleural effusion or pneumothorax. It is noted that the trachea is midline and central airways are patent. The test did show ground glass opacities present in both lungs that were mild.

Diagnostic Test Reference (1) (APA):

Hinkle, J.L., and Cheever, K.H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing*. Lippincott Williams & Wilkins.

Pulmonary Embolism. (2020). *Mayo Clinic*. www.mayoclinic.org/diseases-conditions/pulmonary-embolism/symptoms-causes/syc-20354647#:~:text=Pulmonary%20embolism%20symptoms%20can%20vary.

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

Home Medications (5 required)

Brand/Generic	**Metoprolol/ Lopresor (CAN)**	**Simvastatin / Zocor**	**Levothyroxine Sodium/ Euthyrox**	**Benadryl/ Diphenhydramine Hydrochloride**	**Aspirin/ Bayer**
Dose	**25mg**	**20mg**	**0.05mg**	**25mg**	**81mg**
Frequency	**Daily**	**Daily**	**Daily**	**HS**	**Daily**

Route	**PO**	**PO**	**PO**	**PO**	**PO**
Classification	**Antihypertensive (Beta-Blocker)**	**Antilipemic (HMG-CoA reductase inhibitor statin)**	**Thyroid hormone replacement (Synthetic Thyroxine T4)**	**Antihistamine**	**NSAID (Salicylate) (Anti-inflammatory, antiplatelet, antipyretic, nonopioid analgesic)**
Mechanism of Action	**Inhibits stimulation of beta 1 receptor sites, located mainly in the heart, resulting in decreased cardiac excitability, cardiac output, and myocardial oxygen demand. These effects help relieve angina, minimize cardiac tissue damage from myocardial infarction, and help relieve symptoms of heart failure. This drug**	**Interferes with hepatic enzyme hydroxymethylglutaryl-Coenzyme A reductase. This action reduces the formation of mevalonic acid, a cholesterol precursor, thus interrupting the pathway necessary for cholesterol synthesis. When the cholesterol level declines in hepatic cells, LDLs are consumed, which in turn reduces the levels f circulating total cholesterol and serum triglycerides.**	**This drug replaces endogenous thyroid hormones, which may exert its physiologic effects by controlling DNS transcription and protein synthesis. Levothyroxine has all the following actions of endogenous thyroid hormone.**	**Binds to central and peripheral H1 receptors competing with histamine for these sites and preventing it from reaching it site of action. By blocking histamine, Benadryl produces antihistamine effects that inhibits GI, respiratory, and vascular smooth muscle contraction.**	**Blocks the activity of cyclooxygenase, the enzyme needed for prostaglandin synthesis. Prostaglandins, important mediators in the inflammatory response, cause local vasodilation with swelling and pain. With blocking of the cyclooxygenase inhabitation of prostaglandins, inflammatory symptoms**

	also helps with reducing BP by decreasing renal release of renin.				**subside. Pain is also relieved because prostaglandins play a role in pain transmission from the periphery tot the spinal cord.**
Reason Client Taking	**To control client's hypertension**	**To reduce client's risk of cardiovascular events.**	**To treat hypothyroidism**	**This client uses this medication as a sleep aid.**	**To relieve mild pain**
Contraindications (2)	**Acute HF, pulse less than 45 beats per minute**	**Active hepatic disease, erythromycin**	**Acute MI, uncorrected adrenal insufficiency**	**Hypersensitivity to diphenhydramine, similar antihistamines or their components; use in newborns or premature infants**	**Active bleeding or coagulation disorders, Current or recent GI bleed or ulcers**
Side Effects/Adverse Reactions (2)	**Hepatitis, heart failure**	**A-fib, pancreatitis**	**Seizures, Angioedema**	**Thrombocytopenia, arrhythmias**	**CNS depression, bronchospasm**
Nursing Considerations (2)	**Expect to taper dosage over 1 to 2 weeks when the dug is discontinued. If dosage exceeds 400mg**	**Give drug one hours before or four hours after giving bile acid sequestrant, monitor serum lipoprotein level as ordered to evaluate response to therapy.**	**Expect to give drug IV if client cannot take tablets, Monitor PT of patient who is receiving**	**Expect to give parenteral form of this only when oral ingestion isn't possible; keep container tightly closed,**	**Don't crush timed-release or controlled release aspirin tablets unless directed. Ask the**

	daily, the patient should be monitored for bronchospasm and dyspnea because it completely blocks beta 2 receptors.		**anticoagulants, he or she may have require dosage adjustment**	**protect it and parenteral forms the light**	**client about tinnitus because this reaction usually occurs when blood aspirin level reached or exceeds maximum dosage for therapeutic effect.**
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	**Asses the client's blood pressure to ensure it is not already too low because metoprolol lowers blood pressure and we do not want to make the client hypotensive. We also want to make sure the clients heart rate is now below 60 when giving the drug because it can cause**	**Asses the clients hepatic or renal impairment before administration as simvastatin can be hard on the hepatic and renal system, especially in older adults. It is also important to assess the client's lipid levels to ensure administration of this drug does not cause hypolipidemia or hypercholesterolemia.**	**Monitor the blood glucose of a client with diabetes before administration to ensure the client has good control of their diabetes. This drug may worsen glycemic control and result in increased antidiabetic agent.**	**This medication can cause drowsiness and if a client is already lethargic and drowsiness, it can worsen the clients condition. It is important to assess the client's level of consciousness before administration.**	**Assess the client's platelet level before administration to ensure that taking this medication wont worsen the client's increase the risk for bleeding.**

	bradycardia. You would want to hold if the HR is below 60.				
Client Teaching needs (2)	**Advise patient to notify prescriber if pulse rate falls before 60, urge diabetic patients to check their glucose often during therapy.**	**Urge client to take drug in the evenings, urge patient to follow a low-fat, cholesterol-lowing diet.**	**Tell patient to notify prescriber if patient finds hives or a rash, Advise patient not to stop or change dosage unless instructed by the provider**	**Avoid alcohol while taking this drug, take drug with food to avoid GI upset**	**Tell patient not to use if this med has a strong vinegar-like odor, Take with food to avoid GI upset**

Hospital Medications (5 required)

Brand/Generic	**Enoxaparin/ Lovenox**	**Metformin hydrochloride/ Glycon**	**Ondansetron/ Zofran**	**Acetaminophen/ Tylenol**	**Azithromycin/ Zmax**
Dose	**40mg**	**850mg**	**4mg**	**650mg**	**500mg**
Frequency	**Daily**	**BID**	**PRN Q 6 hrs**	**PRN Q 6hrs**	**Daily**
Route	**SUB Q**	**PO**	**Injectable**	**PO**	**Injectable**
Classification	**Anticoagulant (Low molecular-weight heparin)**	**Antidiabetic**	**Antiemetic**	**Antipyretic/ nonopioid analgesic (Nonsalicylate, para-**	**Antibiotic**

				aminophenol derivative)	
Mechanism of Action	**Potentiates the action of antithrombin III and coagulation inhibitor. By binding with antithrombin II, lovenox rapidly bind with and inactivates slotting factors.**	**May promote storage or excess glucose as glycogen in the liver, which reduced glucose production. Metformin also may improve glucose use by adipose tissue and skeletal muscle by increasing glucose transport across cell membranes. This drug transports across cell membranes.**	**Blocks serotonin receptors Centrally which reduces nausea and vomiting by preventing serotonin release in the small intestine.**	**Inhibits the enzyme cyclooxygenase blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system.**	**Binds to a ribosomal subunit of susceptible bacteria, blocking peptide translocation and inhibiting RNA-dependent protein synthesis. Drug concentrates in phagocytes, macrophages, and fibroblasts, which release it slowly and may help move it to infection sites.**
Reason Client Taking	**To prevent clotting disorders such as DVT's and PE's because client has a known history of PE's**	**To reduce the blood glucose level in this client's type II DM.**	**For nausea and vomiting**	**To relieve client's mild or moderate pain**	**To treat client's Pneumonia**
Contraindications (2)	**Active major bleeding;**	**Advanced renal disease; use**	**Long QT syndrome; hypersensitivi**	**Hypersensitivity to acetaminoph**	**History of cholestatic jaundice or**

	HIT	**of lodinate contrast media within preceding 48 hrs**	**ty**	**en or its components, severe hepatic impairment**	**hepatic dysfunction associated with prior use of this drug; hypersensitivity to azithromycin or its components**
Side Effects/Adverse Reactions (2)	**CVA, Hemorrhage**	**Hypoglycemia, aplastic anemia**	**Elevated liver enzymes, syncope**	**Hypotension, hepatoxicity**	**Seizures, Hepatitis**
Nursing Considerations (2)	**Do not give by IM injection; Expect to give this drug with aspirin with unstable angina**	**Give these tablets with food to decrease slight delays of absorption, This should never be given to a patient with severe renal impairment with a GFR lower then 30.**	**Monitor patient closely for signs and symptoms of hypersensitivity; monitor patient's electrocardiogram as ordered**	**Use cautiously in patients with hepatic impairment, Know that before and during long-term therapy including parenteral therapy liver function tests should be done, Do not confuse dose in mg with a dose in mL when preparing administration.**	**Obtain culture and sensitivity test results before starting therapy; give this 1 hours before or 2-3 hours after food.**
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**Assess the client's platelet level on CBC to ensure that administrat**	**It is vital that clients who are taking this medication need their GFR**	**It is crucial that you monitor client's EKG/ telemetry strip to look for prolonged**	**Liver function tests should be done to ensure the client can handle long**	**Before administering this drug it is important to grab culture and**

	ion of this drug would not put the client at risk for bleeding.	**assessed before administration to be sure this drug if not given if the renal system cannot handle the drug.**	**QT interval from hypokalemia or hypomagnesemia electrolyte imbalances occur.**	**term use of acetaminophen.**	**sensitivity tests to ensure the culture is being done on the active virus before the medication is administered.**
Client Teaching needs (2)	**Tell patient not to rub the site after giving the injection to minimize bruising; review safe handling and disposal or syringes and needles.**	**Take the drug exactly as prescribed and not to change dosage or frequency, advise patient to expect labs draws every3 months to ensure their hemoglobin is stabilized.**	**Advise patient to use calibrated container or oral syringe to measure oral solution; immediately report signs and symptoms of hypersensitivity**	**Tell the patient that tablets may be crushed or swallowed whole, Teach patient to recognize signs of hepatotoxicity because taking more than the 4g per day can cause increase risk for hepatotoxicity.**	**Tell patient to report signs of elelrgic reaction such as rash, hives, trouble breathing, chest tightness, etc.; teach client to watch for and immediately report signs of superinfection such as white patches in the mouth.**

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2019). *2019 Nurse's drug handbook (18th ed.)*. Jones & Bartlett Publishers.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** A&OX1 **Orientation:** Client is orientated to himself but not to location, time or situation. A&OX1 **Distress:** Client is relaxed and interactive during the assessment. Client is not distressed and is not showing signs of discomfort. Client is in a pleasant mood. **Overall appearance:** Overall the client's appearance is well nourished, interactive, positive mood, and alert to client's senses.	**Client is very pleasant client who loves interaction. Client is able to explain who he was and who is family members are, however, he can not identify location, time, or situation. Client can tell me his birthdate. Client is A&OX1. Client is very relaxed and cooperative during the assessment. It is noted that client does have intellectual disability and client is legally blind. Client does not show signs of distress and is able to reposition himself comfortably.**
INTEGUMENTARY (2 points): **Skin color:** Pink, white, normal for race **Character:** Dry and intact **Temperature:** Warm **Turgor:** Elastic **Rashes:** None **Bruises:** None **Wounds:** None **Braden Score:** 20 **Drains present: Y☐ N ☒** **Type:**	**Braden Score: 20** **Client's skin is pink/white and normal for race. Client's skin is warm, dry, and intact. The client skin turgor is elastic indicating he is hydrated adequately. Client does not have any rashes, bruises, wounds or drains. Client does not struggle with repositioning.**
HEENT (1 point): **Head/Neck:** Trachea is midline, oral mucosa is moist and intact. Head is symmetrical and normocephalic. Uvula is midline and no tonsil exudate noted. Client's tongue is pink and most with no cracks or abnormalities. **Ears:** Tympanic membranes are noted pearly silver and no abnormal drainage was noted bilaterally. Both ears are symmetrical with no abnormalities with the formation of the ears. Client is able to hear without hearing aids very well. **Eyes:** PERRLA, Client's sclera is white and there are no signs of jaundice. There are no conjunctival inflammation or abnormal drainage from the eyes. Client's eye are symmetrical bilaterally.	**This clients head is normocephalic. Trachea is midline and oral mucosa is pink, moist, and intact. Head and neck are symmetrical. Ears, eyes, and nose are all symmetrical. Uvula is midline and there is no tonsil exudate. Client's TM is noted pearly silver bilaterally with no abnormal drainage. PERRLA is noted with sclera appearing white bilaterally with no conjunctival inflammation or drainage bilaterally. Nasal septum is midline and no epistaxis noted. Client does not have teeth.**

Nose: Septum is midline. No abnormal drainage noted. No Epistaxis. **Teeth:** Client does not have any denture or teeth. Client's oral mucosa is pink, moist, and intact.	
CARDIOVASCULAR (2 points): **Heart sounds:** S1 and S2 were auscultated. **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** Sinus Tachycardia **Peripheral Pulses:** +3 bilaterally for radial pulses and +3 bilaterally for pedal pulses. **Capillary refill:** <3 seconds **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	**Clients heart sounds were auscultated and S1 and S2 were noted. The client is noted to have sinus tachycardia. Peripheral pulses were measured at 3+ bilaterally for both radial and pedal pulses bilaterally. Client had a less than three second capillary refill with no neck vein distention or edema located.**
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Client's respirations were even and unlabored with equal rise and fall of the chest bilaterally. Posterior and Anterior auscultation was assessed bilaterally with all lobes of both the left and right lung being clear. There were no wheezes, stridor or crackles. Client is currently using 3L of oxygen with oxygen saturation varying between 92%-95%. Currently the oxygen saturation is at 93%. Client's respirations stay between 18-20. Client does not use CPAP or BIPAP at home.**
GASTROINTESTINAL (2 points): **Diet at home:** Regular (As desired) **Current Diet:** Regular (As desired) **Height:** 165cm **Weight:** 57.7kg **Auscultation Bowel sounds:** Present with hyperactive bowel sounds in all four quadrants. **Last BM:** 04/08/21 **Palpation: Pain, Mass etc.:** No pain with palpation, no masses noted, soft non-tender abdomen. **Inspection:** **Distention:** None **Incisions:** None **Scars:** None **Drains:** None	**Client is on a regular as desired diet both at home and currently at the hospital. Client's bowel sounds are present in all four quadrants and hyperactive in all four quadrants. The client's last bowel movement was on 04/08/21. Client did not have any pain with palpation of the abdomen. There were no masses felt on palpation. Client's abdomen is soft and non-tender. Client does not have any abdominal distention, wounds, incisions, or scars. Client does not have an ostomy, NG tube, or feeding tube.**

Wounds: None **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY (2 Points): **Color:** Yellow/clear **Character:** Clear **Quantity of urine:** 2,500mL urine output in past 24 hours **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** No genital abnormalities noted **Catheter: Y ☒ N ☐** **Type:** Foley Catheter **Size:** 16 French	**Client was admitted with urinary retention. The ED placed a Foley Catheter on 04/09/21 to relieve the urinary retention. Client is currently using the 16 French Foley Catheter. Client is voided 2,500mL within the past 24 hours. Client's urine is clear yellow and does not have pain with urination. Client's genitals are normal with no abnormalities noted.**
MUSCULOSKELETAL (2 points): **Neurovascular status:** Radial pulse is 3+ bilaterally and pedal pulse is 3+ bilaterally. Skin is warm and intact bilaterally in upper and lower extremities. Clients senses are intact and skin is pink and normal for race. Not cyanotic. **ROM:** Client demonstrates functional active range of motion. **Supportive devices:** Client does not use any supportive devices **Strength:** Client's strength is 5/5 strength bilaterally in upper and lower extremities. **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 60** **Activity/Mobility Status:** Client is a 1 assist **Independent (up ad lib) ☐ No** **Needs assistance with equipment ☐ No** **Needs support to stand and walk ☐ No**	**Fall Score: 60** **This client has a neurovascular status. Client's radial and pedal pulses were both 3+ bilaterally. Skin in clean, dry, warm, and intact. Client's senses are intact and skin is pink/normal for race and not cyanotic. Client does have an intellectual disability and is legally blind, however the client does not have any supportive devices. Client is 1 assist mobility status. Client does need help with ADL's because of the intellectual disability and being legally blind. Client does not need assistance with equipment and does not need help to stand or walk, however he needs oriented around his room when ambulating.**
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐**	.

Orientation: A&O X1 **Mental Status:** Client's mental status is slightly altered due to client being a poor historian from intellectual disabilities, however client loves to interact and talk with others. Client is alert and is oriented to himself and his family members. Client is not oriented to location, time, or situation. **Speech:** Client's speech is not slurred and easily understood; however the speech is slightly delayed due to client intellectual disability. **Sensory:** Clients sensory is intact. **LOC:** Alert to himself	
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** Interacting with others **Developmental level:** C-car (client has intellectual disabilities and documented developmental delay **Religion & what it means to pt.:** Client has no religious preference **Personal/Family Data (Think about home environment, family structure, and available family support):**	**Due to client being a poor historian from intellectual disabilities, the mother who is the care giver of the client, stated that the client does not have religious preferences. The client's coping methods are interacting with others. The client loves conversation. The client does have a documental developmental delay due to intellectual disabilities. Client has a very positive home figure with a supportive mother who cares for him and his 3 other siblings.**

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1145	**100**	**99/68**	**18**	**37.0**	**93%**
1520	**111**	**101/58**	**20**	**37.6**	**93%**

Vital Sign Trends:

This client is noted to have sinus tachycardia. During my time of care, I saw this client's heart rate vary from low 90's to low 120's. The client also struggles with hypertension; however the client is receiving the metoprolol, which is controlling his blood pressure very well. The client's blood pressure is within normal limits for this client's baseline. The client's respirations were on

the higher end, however that is to be expected for a pneumonia client. This client is struggling to breath and his oxygen saturation is staying between 92%-95% which means the client could be struggling to breathe. After administration of 3L of oxygen the oxygen saturation started to stay stable at 93% and respirations are staying between 18-20. This client's vitals match is diagnosis.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1145	**Numeric**	**N/A client does not complain of pain**	**0/10**	**N/A client does not complain of pain**	**This client did not complain of pain, client said he was slightly cold, so I got him a warm blanket to care for his needs.**
1520	**Numeric**	**N/A client does not complain of pain**	**0/10**	**N/A client does not complain of pain**	**Client did not complain of any pain. I gave the client his music relaxation headphones for the client to listen to because he asked for them.**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 18G **Location of IV:** Right AC **Date on IV:** 04/09/21 **Patency of IV:** Patent **Signs of erythema, drainage, etc.:** none **IV dressing assessment:** Clean, dry, and intact	This client has an 18 G saline lock in his Right AC that was places on the 9th of march. When assessing the IV, there were no signs of erythema, drainage or redness noted. The IV is patent and is clean, dry, and intact.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
2390mL	**3050ML**

Nursing Care

Summary of Care (2 points)

Overview of care: During the time of care for this client, this nursing student preformed a head-to-toe assessment, took two sets of vital signs, administered Lovenox for client's history of PE and Zofran for client's vomiting. Client's reasoning for vomiting was not yet determined during the time of care for this nursing student. This nursing student also did two pain assessments on this client which indicating no pain during each assessment. This nursing student also communicated with the client's family members and helped answer any questions they may have had.

Procedures/testing done: There were no procedures or testing performed during this nursing students time of care.

Complaints/Issues: This client does not voice any complaints with his care. The client's primary caretaker also did not voice any complaints or issues about the client's care. The mother seemed very pleased with how the care of the client is going.

Vital signs (stable/unstable): This client's vital signs were slightly unstable. This client was slightly tachycardic, although tachycardia is to be expected with client's condition. Client's oxygenation status is slightly decreased with the pulse oxygenation showing 93%. This client's respirations were slightly elevated but stayed within normal limits. This client is suffering from pneumonia and opacities in client's lungs bilaterally. The client is currently on 3L of oxygen to

help raise oxygenation status and help client to breathe with ease. Client's temperature was within normal limits during this nursing students time of care.

Tolerating diet, activity, etc.: This client is on a regular, as desired, diet at home and at the hospital. The client currently is a 1 assist for ambulation. Client tolerates consistent ambulation.

Physician notifications: Client was not notified during this nursing students time of care for this client.

Future plans for patient: The future plan for this client is to be discharged with indwelling urinary catheter and antibiotics for the client's pneumonia. The client is doing well, and all needs are being met. Client's vomiting episode will be closely monitored.

Discharge Planning (2 points)

Discharge location: This client will be discharged back to his home with his mother as the primary caregiver. The client lives with his mother and his 3 siblings.

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: This client's follow up plan will include following up with his primary care doctor for client's urinary retention. The client is going home with a 16 French indwelling urinary catheter that will relieve the client's urinary retention. The client will go back to urology at a later date to have the catheter either taken out or replaced depending on the client's condition.

Education needs: Client and caretaker (mother) of the client will need educated on catheter care. Education needs to focus on preventing infections from poor catheter care. The

mother will need educated on the importance of medication compliance for the client's pneumonia, as well.

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 client's altered delivery of oxygen as evidenced by client's dyspnea.	**This nursing diagnosis was chosen because the client was short of breath and client was not receiving correct adequate amount of oxygen.**	**1.Assess client's skin color and capillary refill and look for cyanosis.** **2.Assess respirations and look for signs of hypoxia.**	**The mother of this client was content with these nursing interventions. The client was compliant and did well with these interventions. The outcome for this client is to breathe with ease without showing signs of impaired gas exchange and labored breathing as evidenced by decreased respirations by the time of discharge.**
2. Acute pain related to urinary retention as evidenced by clients constant feeling of having to void.	**This nursing diagnosis was chosen because the client is having urinary retention. This client stated he was not in pain, however he does feel a constant urge to void and with pressure on the bladder client does facial grimace.**	**1. Monitor intake and output for this client to ensure client is not retaining urine.** **2.Assess client's urinary elimination for volume, color, and odor.**	**The mother and client were compliant with these nursing interventions. The mother felt these interventions may help her to keep a close eye on the urine elimination better than what she did at home. The outcome for this client is to be able to eliminate urine fully without any feelings of discomfort from not fully emptying the bladder by the time of discharge.**
3. Activity	**This nursing**	**1. Encourage the**	**The client and the**

intolerance related to imbalanced oxygen supply as evidenced by client's shortness of breath with excretion.	**diagnosis was chosen because the client is not able to do all activities due to client becoming short of breath with ease from the excretion.**	**client for periods of rest and activity to help the client tolerate more activity for a longer period of time.** **2During period of rest, it is vital to give the client a stress-free environment to promote adequate rest and relaxation.**	**mother of this client were happy learn ways to be prolong periods of activity. The outcome for this client would be prolonging the amount of activity that the client can endure without becoming short of breath so fast by discharge.**
4. Risk for imbalanced nutrition related to dyspnea as evidenced by client's refusal of normal dinner intake.	**This nursing diagnosis was chosen because with client's who struggle to breathe, eating can be hard because it is hard to eat and breathe at the same time. In most cases, client's will chose to breathe, rather than to eat, which is why this client is at risk for an imbalanced nutrition.**	**1. Assess the client and identify factors that are contributing to the client's shortness of breath and reposition the client.** **2. Provide the client with smaller but more frequent food choices so the client can still eat the correct amount of food, but just not so much within one setting.**	**The mother and client were very compliant to these nursing interventions. The client was happy to try eating again, without having so much to eat. The outcome for this client would be to be able to take in adequate nutrition without being short of breath by the end of shift.**

Other References (APA):

Vera, M., et al. (2017). *Pneumonia nursing care plans.* Nurseslabs.

www. nurseslabs.com/pneumonia-nursing-care-plans/9/.

Concept Map (20 Points):

Subjective Data

-Client is cold
-Client feels the urge to void
-Client is short of breath
-Client states he is in no pain
-Client is SOB with exertion

Objective Data

- Client has a 16 French Indwelling urinary catheter
- Client is on 3L of oxygen
-Client is Tachycardic
-Client's oxygenation status is slightly low but still within normal limits

Patient Information

Client is a 61-year-old male with intellectual disabilities and is legally blind bilaterally. The client presented to the urology clinic with urinary retention where they realized the client was short of breath and oxygen saturation was low. Client was diagnosed with pneumonia and had a Foley catheter placed for urinary retention.

Nursing Diagnosis/Outcomes

Impaired gas exchange related to client's altered delivery of oxygen as evidenced by client's dyspnea. The outcome for this client is to breathe with ease without showing signs of impaired gas exchange and labored breathing as evidenced by decreased respirations by the time of discharge.
Acute pain related to urinary retention as evidenced by clients constant feeling of having to void. The outcome for this client is to be able to eliminate urine fully without any feelings of discomfort from not fully emptying the bladder by the time of discharge.
Activity intolerance related to imbalanced oxygen supply as evidenced by client's shortness of breath with excretion.
The outcome for this client would be prolonging the amount of activity that the client can endure without becoming short of breath by the time of discharge.
Risk for imbalanced nutrition related to dyspnea as evidenced by client's refusal of normal dinner intake.
The outcome for this client would be to be able to take in adequate nutrition without being short of breath during each shift.

Nursing Interventions

Assess client's skin color and capillary refill and look for cyanosis.
Assess respirations and look for signs of hypoxia.
Monitor intake and output for this client to ensure client is not retaining urine.
Assess client's urinary elimination for volume, color, and odor.
Encourage the client for periods of rest and activity to help the client tolerate more activity for a longer period of time.
During period of rest, it is vital to give the client a stress-free environment to promote adequate rest and relaxation.
Assess the client and identify factors that are contributing to the client's shortness of breath and reposition the client.
2. Provide the client with smaller but more frequent food choices so the client can still eat the correct amount of food, but just not so much within one setting.