N431 Care Plan #1

Lakeview College of Nursing

Paige Hennessy

Adult Health II

Professor Linda Scribner, MSN RN

2/22/2024

Demographics (3 points)

Date of Admission	**Client Initials**	**Age**	**Gender**
2/17/2024	J.A.W.	96 y.o.	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Retired	Single	Tylenol
Code Status	**Height**	**Weight**	
Full Code	5’9”	191 lbs.	

Medical History (5 Points)

Past Medical History: Hypertension, PAD, CAD, aortic stenosis, Actinic Keratosis, arthritis, BPH, Colon polyps, Depression, DVT, PE, Pure Hypercholesterolemia, renal cyst, asthma, insomnia, ED, Iron deficiency anemia, stable angina

Past Surgical History: appendectomy (1972), Tonsillectomy (1972), Gallbladder removal (1972), Hernia repair (1988&2000), Cataract removal (2004), Back surgery (2016), Median Nerve Neuroplasty (2016), Cystoscopic biopsy (2018), Lumbar Discectomy (year unknown).

Family History: Father (renal cancer, Hypertension, glaucoma), Mother (Throat cancer, Hypertension), Brother (Hypertension, heart murmur). Maternal and Paternal grandparents’ medical history is unknown per patient.

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): No vape. Patient reports former tobacco use of 1 pack per day for 15 years but quit in 1979. Patient reports alcohol use for “a long time” stated per patient of at minimum of 1 beer a week. No drug uses.

Assistive Devices: Patient uses a walker, glasses, dentures, and hearing aids daily.

Living Situation: Patient lives with his daughter.

Education Level: High school Diploma

Admission Assessment

Chief Complaint (2 points): Shortness of breath with cough.

History of Present Illness – OLD CARTS (10 points):

Patient reported to the emergency room on 2/17/2024 due to productive cough with dark sputum, fatigue, chills, inability to eat, and primarily shortness of breath. Patient reported that symptoms began on 2/12 and slowly progressed. The patient stated that they “felt better” on 2/14 but awoke on 2/15 with worsened symptoms. Patient reports trying decongestant medications with no relief reported. Patient states shortness of breath worsens with activity and decreases with rest. No other interventions were taken until the patient was seen at convenient care and suggested to go to the emergency room. The patient feeling short of breath and unable to maintain makes the severity high.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Community acquired bacterial pneumonia

Secondary Diagnosis (if applicable): Nstemi, non-ST elevated myocardial infarction

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

Community acquired bacterial pneumonia is a illness that is understood as an infection of pneumonia due to a transmission of the infection outside a hospital setting (Sethi, 2022). There are several bacterial pathogens that are responsible and may lead to a pneumonia infection. These include but are not limited to Streptococcus pneumoniae, Haemophilus influenzae, and Mycoplasma pneumoniae (Sethi, 2022). Pneumonia can be caused by viruses as well, however this patient was admitted and diagnosed with community acquired bacterial pneumonia meaning that this illness was caused by bacteria. There may be inflammation in the respiratory tract due to an imbalance or disturbance between the normal flora and defense of the body (Vardhmann et

al., 2022). The body has assistance from the immune system, such as macrophages, that assist in defending the body from infections (Vardhmann, 2022). However, in this scenario the "inflammatory reaction triggered by these very macrophages is what is responsible for the histopathological and clinical findings seen in pneumonia" as stated by Jain Vardhamm in the article *Pneumonia Pathology* published by National Library of Medicine. The bacteria attacking the body often begins in the pharynx and slowly works down the respiratory system (Sethi, 2022). The bacteria will reach the lungs and begin the stages of pneumonia if the body is unable to defend itself against the illness or infection then pneumonia will form and begin (Sethi, 2022). Symptoms of bacterial acquired pneumonia include cough, dyspnea, chest pain, and occasional nausea/vomiting or diarrhea (Regunath&Oba, 2022). It is more common for the cough to result in productive sputum in older adults. Signs may include fever, tachycardia, tachypnea, and there may be crackles in the lungs due to fluid accumulation in the air sacs (Regunath&Oba, 2022). The signs and symptoms listed are all expected findings related to a diagnosis of pneumonia. Pneumonia is often diagnosed by Chest x-ray where infiltration can be noted and used to properly diagnose, blood cultures, and sputum culture (Regunath&Oba, 2022). The treatment for pneumonia may be dependent on the type and symptoms the patient is experiencing. The common treatment options provided include antibiotics, oxygen, incentive spirometer, and other medications that may assist symptoms such as cough decongestant, fever reducer, or pain reliver (Regunath&Oba, 2022). There may be some abnormal lab values seen with pneumonia such as C-reactive protein, this will assist in being able to properly diagnose viral from bacterial pneumonia (Gibson, 2019). Procalcitonin, sputum culture, urine culture, ABG, BUN, hyponatremia, thrombocytopenia are all results that can assist in indicating the severity of the

diagnosis (Gibson, 2019). There may be different findings along with signs and symptoms for each individual patient.

Pathophysiology References (2) (APA):

Vardhmaan, Jain. Vashisht, Rishik. Yilmaz, Gizem. Bhardwaj, Abhishek. (2022). *Pneumonia Pathology*. National Library of Medicine; StatPearls. Publishing. https://www.ncbi.nlm.nih.gov/books/NBK526116/

Regunath, Hariharan & Oba, Yuji. (2022). *Community-Acquired Pneumonia.* PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK430749/

Sethi, Sanjay, MD. (2022). *Community-Acquired Pneumonia- Pulmonary Disorders.* Merck Manuals Professional Edition. https://www.merckmanuals.com/professional/pulmonary-disorders/pneumonia/community-acquired-pneumonia

Gibson, Michael. (2019). *Pneumonia laboratory findings.* WikiDoc. https://www.wikidoc.org/index.php/Pneumonia_laboratory_findings#:~:text=Laboratory%20findings%20such%20as%20leukocytosis,exact%20pathogen%20causing%20the%20pneumonia.

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	4.7-6.2 x 10(2)/L (Martin, 2019).	4.13	3.95	Decreased levels of RBC are in relation to iron deficiency anemia (Martin, 2019).
Hgb	14-17 g/dL (Martin, 2019).	13.1	12.9	Decreased levels of Hgb are in relation to iron deficiency anemia (Martin, 2019).
Hct	37-51% (Martin, 2019).	39.6	38.1	Labs are within normal range.
Platelets	150-400 x 10(9)/L (Martin, 2019).	180	208	Labs are within normal range.
WBC	5-10 x10(9) cells/L (Martin, 2019).	12.99	12.70	Elevated levels of WBC are related to severe infection of pneumonia with inflammation and antibiotic (Martin, 2019).
Neutrophils	1.6-7.70/ mm (3) (Martin, 2019).	10.69	10.30	Elevated levels are related to severe infection of pneumonia with inflammation (Martin, 2019).
Lymphocytes	1-4.9/ mm (3) (Martin, 2019).	0.94	0.99	Elevated levels are related to severe infection of pneumonia with inflammation (Martin, 2019).
Monocytes	0-1.1/ mm (3) (Martin, 2019).	1.24	1.30	Elevated levels are related to severe infection of pneumonia with inflammation (Martin, 2019).
Eosinophils	0-0.5/ mm (3) (Martin, 2019).	0.03	0.04	Labs are within normal range
Bands	Not completed	N/A	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-	135-145 mEq/L (Martin, 2019).	139	136	Lab values are within normal range
K+	3.5-5/0 mEq/L (Martin, 2019).	3.7	3.3	Decreased/ lower levels of potassium levels may be related to poor dietary intake or diuretic administration (Martin, 2019).
Cl-	95-105 mEq/L (Martin, 2019).	101	96	Lab values are within normal range.
CO2	22-29 mmol/L (Martin, 2019).	28	30	Elevated levels may be related to respiratory alkalosis compensated related to current diagnosis of pneumonia with respiratory distress (Martin, 2019).
Glucose	<200 mg/dL (Martin, 2019).	110	106	Lab values are within normal range.
BUN	10-20 mg/dL (Martin, 2019).	20	23	Elevated levels may be related to the patient's myocardial infarction or dehydration (Martin, 2019).
Creatinine	0.70-1.30 mg/dL (Martin, 2019).	1.08	1.00	Lab values are within normal range.
Albumin	3.5-5.0 g/dL (Martin, 2019).	3.7	3.0	Decreased levels may be related to malnutrition due to the patient not eating prior to admission (Martin, 2019).
Calcium	9.0-10.5 mg/dL (Martin, 2019).	8.9	8.3	Decreased levels may indicate Vitamin D deficiency (Martin, 2019).
Mag	1.3-2.1 mEq/L (Martin, 2019).	1.7	2.2	Lab values are within normal range.
Phosphate	Not completed	N/A	N/A	N/A
Bilirubin	0.3-1.0 mg/dL (Martin, 2019).	1.7	1.0	Elevated levels may be due to dehydration, new medication administration, and high cholesterol levels. Although no

				confirmed gallstone diagnosis, this may also affect the bilirubin (Martin, 2019).
Alk Phos	40-150 u/L (Martin, 2019).	77	69	Lab values are within normal range.
AST	10-40 u/L (Martin, 2019).	31	21	Lab values are within normal range.
ALT	10-55 u/L (Martin, 2019).	34	28	Lab values are within normal range.
Amylase	Not completed	N/A	N/A	N/A
Lipase	Not completed	N/A	N/A	N/A
Lactic Acid	Not completed	N/A	N/A	N/A
Troponin	<0.4 ng/mL (Martin, 2019).	1008	Not completed	Elevated levels related to myocardial infarction and myocardial injury (Martin, 2019).
CK-MB	Not completed	N/A	N/A	N/A
Total CK	Not completed	N/A	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	0.8-1.2 ratio (Martin, 2019).	1.2	Not completed	Labs are within normal range.
PT	11.7-13.8 sec (Martin, 2019).	14.8	Not completed	Labs are within normal range.
PTT	22.4-35.9 sec (Martin, 2019).	45.0	Not completed	Elevated levels related to heparin administration (Martin, 2019).
D-Dimer	Not completed	N/A	N/A	N/A
BNP	0-100 pg/mL	489	Not	Elevated levels related to current

	(Martin, 2019).		completed	diagnosis of myocardial infarction. Heart function is affected due to damage of the myocardial muscle. (Martin, 2019).
HDL	Not completed	N/A	N/A	N/A
LDL	Not completed	N/A	N/A	N/A
Cholesterol	Not completed	N/A	N/A	N/A
Triglycerides	Not completed	N/A	N/A	N/A
Hgb A1c	Not completed	N/A	N/A	N/A
TSH	0.350-4.940 u[IU]/mL (Martin, 2019).	1.691	Not completed	Lab values are within normal range.

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	Not completed			
pH	Not completed			
Specific Gravity	Not completed			
Glucose	Not completed			
Protein	Not completed			
Ketones	Not completed			
WBC	Not completed			
RBC	Not completed			
Leukoesterase	Not completed			

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	Not completed	N/A	N/A	N/A
PaO2	N/A	N/A	N/A	N/A
PaCO2	N/A	N/A	N/A	N/A
HCO3	N/A	N/A	N/A	N/A
SaO2	N/A	N/A	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	Not completed	N/A	N/A	
Blood Culture	No growth	No growth	Not completed	Lab values are within normal range.
Sputum Culture	Not completed	N/A	N/A	
Stool Culture	Not completed	N/A	N/A	

Lab Correlations Reference (1) (APA):

Martin, Paul, BSN. (2019). Normal Laboratory Values Guise and Cheat Sheet for Nurses. Nurselabs.com. https://nurseslabs.com/normal-lab-values-nclex-nursing/#h-serum-creatinine-cr-creatinine-urine-and-creatinine-clearance-crcl

Diagnostic Imaging

All Other Diagnostic Tests (5 points): XR chest PA/LAT, XR chest AP or PA, Echocardiogram

Diagnostic Test Correlation (5 points): This patient received two chest X-rays to determine what was causing his respiratory distress and determine the severity. A Chest PA Lateral X-ray is a diagnostic test that is used to view the lungs and diagnose multiple disorders (Cura4U, 2023). The PA and Lateral are different views of the chest. Although this test is used to diagnose some additional tests or exams may be required to supply an accurate diagnosis. However, for this direct diagnostic test the finding interpreted was pleural effusion in the right lung with small airspace. Pleural effusion is defined as the surroundings of the lungs being filled with fluids (RSNA, 2021). There was also a finding of trace effusion in the left lung. These findings are common in pneumonia on a chest x-ray (RSNA, 2021). There was also a repot of visualizing pulmonary infiltrates in both lungs that are shown as a sign of pneumonia, this finding was more prominent in the right lung compared to the left. Infiltrates are defined as little specks that are white that indicate an infection and this is a common finding with pneumonia (RSNA, 2021). The patient received an echocardiogram related to their secondary diagnosis of Nstemi myocardial infarction. This test is used to view the blood vessels and the heart to determine if there is blockage or compression (NHS Inform, 2023). The patient had a myocardial infarction so it may be expected to have an abnormal finding. However, this test had not been resulted during my shift.

Diagnostic Test Reference (1) (APA):

Cura4U. (2023). *Chest PA and Lateral X Ray Services in USE-Cura4U.* Cura4U. https://cura4u.com/radiology/x-ray/x-ray-chest-pa-and-lateral#:~:text=A%20chest%20PA%20Lateral%20X,performed%20diagnostic%20X%2Dray%20examination.

NHS Inform. (2023). *Echocardiogram*. NHS Inform. https://www.nhsinform.scot/tests-and-treatments/scans-and-x-rays/echocardiogram/#:~:text=An%20echocardiogram%2C%20or%20“echo”,different%20parts%20of%20the%20body.

Radiology (ACR), R.S. of N.A. (2021). *Pneumonia.* Radiologyinfo.org. https://www.radiologyinfo.org/en/info/pneumonia

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

Home Medications (5 required)

Brand/Generic	Aspirin/ Acetylsalicylic acid	Lisinopril/ Prinivil	Tums/ Calcium carbonate	Vitamin D3/ Calcitriol	Gabapentin/ Gralise
Dose	81 mg	20mg	500 mg	50,000 u	200 mg
Frequency	Daily	Daily	Every 6 hours PRN	Daily	TID
Route	Oral	Oral	Oral	Oral	Oral
Classification	“Pharmacological: Salicylate Therapeutic: NSAID” (Jones&Bartlett, 2022-pg 104).	“Pharmacological: Angiotensin-converting enzyme Therapeutic: Antihypertensive” (Jones&Bartlett, 2022-pg 791).	“Pharmacological: Calcium Salts Therapeutic: Antacid” (Jones&Bartlett, 2022-pg 191).	“Pharmacological: Vitamin D analogue Therapeutic: Antihypocalcemic” (Jones&Bartlett, 2022-pg 189).	“Pharmacological: 1-amino-methyl cyclohexane acetic acid Therapeutic: Anticonvulsant” (Jones&Bartlett, 2022-pg 606).

Mechanism of Action	"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 cyclooxygenase and inhibition of prostaglandins, inflammatory symptoms subside" (Jones&Bartlett, 2022-pg 104).	"May reduce blood pressure by inhibiting conversion of angiotensin I to angiotensin II" (Jones&Bartlett, 2022-pg 791).	"Increases levels of intracellular and extracellular calcium, which is needed to maintain homeostasis." (Jones&Bartlett, 2022-pg 191).	"Binds to specific receptors on intestinal mucosa to increase calcium absorption from intestine" (Jones&Bartlett, 2022-pg 189).	"prevent exaggerated responses to a normally innocuous stimulus to account for its effectiveness in relieving postherpetic neuralgia and restless leg syndrome." (Jones&Bartlett, 2022-pg 606).
Reason Client Taking	To reduce risk of MI and clotting.	Hypertension	Antacid/ Indigestion	Increase Calcium levels	Nerve pain in right leg
Contraindications (2)	1.Not recommended in patients also taking a diuretic due to the risk of reducing therapeutic effect of diuretics (Jones&Bartl	1.Not recommended in patients with use of NSAIDS due to the risk of reducing the therapeutic effect of lisinopril (Jones&Bartl	1. Not recommended in patients with edema (Jones&Bartlett, 2022). 2. Use cautiously in patients with hypertension because this	1.Not recommended if patient is already taking a medication that promotes the increase of calcium (Jones&Bartlett, 2022).	1.Not recommender in patients taking an antacid due to the reduced effects of gabapentin (Jones&Bartlett, 2022).

	ett, 2022). 2.Not recommended in patients with asthma due to increasing the risk of bronchospasm (Jones&Bartlett, 2022).	ett, 2022). 2.Not recommended in patients with diuretic use due to the risk of hypotension (Jones&Bartlett, 2022).	medication also contains sodium which may increase blood pressure (Jones&Bartlett, 2022).	2.Long term or toxicity can negatively impact the liver, GI tract, and kidneys (Jones&Bartlett, 2022).	2. Not recommended in patients with respiratory distress due to increased risk of respiratory depression (Jones&Bartlett, 2022).
Side Effects/Adverse Reactions (2)	1.May result in decreased iron levels 2.May result in tinnitus (Jones&Bartlett, 2022).	1.Patient may experience arrhythmias (Jones&Bartlett, 2022). 2.Patient may experience fluid overload (Jones&Bartlett, 2022).	1.Patient may experience hypotension (Jones&Bartlett, 2022). 2.Patient may experience hypercalcemia (Jones&Bartlett, 2022).	1.Patient may experience pruritus (Jones&Bartlett, 2022). 2.Patient may experience constipation (Jones&Bartlett, 2022).	1.Patient may experience hypoglycemia (Jones&Bartlett, 2022). 2.Patient may experience melena (Jones&Bartlett, 2022).
Nursing Considerations (2)	1.Elderly patients have a higher risk of experiencing toxicity with this medication (Jones&Bartlett, 2022). 2.If patients are also taking ibuprofen or naproxen it may decrease the therapeutic effect of aspirin (Jones&Bartl	1. Lisinopril may negatively impact renal function so this should be monitored (Jones&Bartlett, 2022). 2.The patient is at risk to experience dehydration (Jones&Bartlett, 2022).	1.Long term use of TUMS can alter the calcium levels (Jones&Bartlett, 2022). 2.Ensure the patient is having proper absorption of the medication by providing this medication separately from others (Jones&Bartl	1.Prepare for adjustment in dosage depending on therapeutic levels in blood test (Jones&Bartlett, 2022). 2.Taking this medication with an anticonvulsant may decrease the therapeutic effect (Jones&Bartlett, 2022).	1.You do not need to regularly check gabapentin levels in the blood (Jones&Bartlett, 2022). 2.When discontinuing this medication understand that this medication will slowly be reduced over time (Jones&Bartlett, 2022).

	ett, 2022).		ett, 2022).		
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	1.Monitor salicylate levels prior to administration of medication (Jones&Bartlett, 2022). 2.Monitor patient for aspirin toxicity such as confusion, CNS depression, or bronchospasm (Jones&Bartlett, 2022).	1. Monitor blood pressure routinely (Jones&Bartlett, 2022). 2.Monitor the patients potassium level due to the increased risk of hyperkalemia because lisinopril contains renin-angiotensin increase this risk (Jones&Bartlett, 2022).	1.Monitor serum calcium levels (Jones&Bartlett, 2022). 2.Check Chvostek and Trousseaus signs to determine hypercalcemia (Jones&Bartlett, 2022).	1.Monitor for hypercalcemia (Jones&Bartlett, 2022). 2.Monitor for vitamin D toxicity such as abdominal pain, headache, metallic taste (Jones&Bartlett, 2022).	1.Monitor the patient's renal function (Jones&Bartlett, 2022). 2.Monitor the patients pain and function of the extremity (Jones&Bartlett, 2022).
Client Teaching Needs (2)	1.Educate the patient on signs and symptoms of stomach/intestinal bleeding and to notify PCP immediately (Jones&Bartlett, 2022). 2.Educate patients on the risk of upset stomach related to aspirin so suggest taking this medication with or after	1.Educate the patient on the purpose of this medication. Lisinopril is used to assist in the management of hypertension, not a cure (Jones&Bartlett, 2022). 2.Educate on the importance of taking the medication at the same time and as ordered	1.Educate the patient to drink a glass of water following their chewable tablets (Jones&Bartlett, 2022). 2.Educate the patient on food/drink interactions such as excessive alcohol or caffeine may reduce therapeutic effect of medication	1.Educate the patient about signs and symptoms of toxicity and educate to call PCP immediately (Jones&Bartlett, 2022). 2. Educate the patient to take a missed dose as soon as they remember (Jones&Bartlett, 2022).	1.Educate the patient to not stop the medication suddenly and consult with their provider (Jones&Bartlett, 2022). 2.Instruct the patient to take the medication with food (Jones&Bartlett, 2022).

	food (Jones&Bartlett, 2022).	(Jones&Bartlett, 2022).	(Jones&Bartlett, 2022).		

Hospital Medications (5 required)

Brand/ Generic	Zithromax/ Azithromycin	Mucinex/ Guaifenesin	Protonix/ Pantoprazole	Metoprolol/ Toprol-XL	Heparin/ Heparin Lock
Dose	250 mg	600 mg	20mg	25 mg	100 u/mL in 5% dextrose
Frequency	Daily	2x day/ 1 every 12hr	Daily	BID	Continuous
Route	Oral	Oral	Oral	Oral	IV
Classification	"Pharmacological: Macrolide Therapeutic: Antibiotic" (Jones&Bartlett, 2022-pg 129).	Pharmacological: expectorants Therapeutic: Decongestant (Drugs.com, 2022).	"Pharmacological: Proton pump inhibitor Therapeutic: Antiulcer" (Jones&Bartlett, 2022-pg 1039).	"Pharmacological: Beta-adrenergic blocker Therapeutic: Antihypertensive" (Jones&Bartlett, 2022-pg 872).	"Pharmacological: Anticoagulant Therapeutic: Anticoagulant" (Jones&Bartlett, 2022-pg 644).
Mechanism of Action	"Binds to ribosomal subunit of susceptible bacteria, blocking peptide translocation and inhibiting RNA-dependent protein synthesis." (Jones&Bartlett, 2022-pg 129).	This medication assists in thinning the mucus by increasing hydration of the respiratory tract to loosen and expel the mucus (Drugs.com, 2022).	"Interferes with gastric acid secretion by inhibiting the hydrogen-potassium-adenosine triphosphatase enzyme system, or proton pump, in gastric parietal cells." (Jones&Bartlett, 2022- pg 1039).	"Inhibits stimulation of beta-receptor sites, located mainly in the heart, resulting in decreased cardiac excitability, cardiac output, and myocardial oxygen demand."	"Binds with antithrombin III, enhancing antithrombin III's inactivation of the coagulation enzymes thrombin and factors Xa and Xia." (Jones&Bartlett, 2022-pg 644).

				(Jones&Bartlett, 2022-pg 872).	
Reason Client Taking	Bacterial pneumonia	Decongestant	Erosive esophagitis related to GERD	Hypertension	Blood thinner for DVT & PE
Contraindications (2)	1.Not recommended in patients on an anticoagulant due to the risk of increasing the effect of anticoagulants (Jones&Bartlett, 2022). 2. Not suggested in patients with renal impairment (Jones&Bartlett, 2022).	1.Not recommended in patients with renal impairment (Drugs.com, 2022). 2.Not recommended in patients with liver impairment (Drugs.com, 2022).	1.Use carefully in a patient on anticoagulant because it may increase risk for bleeding (Jones&Bartlett, 2022). 2.Use carefully in patients with renal function decrease due to risk of worsening condition (Jones&Bartlett, 2022).	1.Use carefully in patient on other antihypertensives. This puts the patient at risk for hypotension (Jones&Bartlett, 2022). 2. Not recommended in patients with asthma (Jones&Bartlett, 2022).	1.Not recommended for patients taking aspirin due to increased risk of bleeding (Jones&Bartlett, 2022). 2. Use this medication with caution in patients with hypertension (Jones&Bartlett, 2022).
Side Effects/Adverse Reactions (2)	1.Patient may experience hyperkalemia (Jones&Bartlett, 2022). 2.Patient may experience hepatic necrosis (Jones&Bartlett, 2022).	1. Patient may experience dizziness or headache (Drugs.com, 2022). 2.Patient may experience nausea/vomiting (Drugs.com, 2022).	1.Patient may experience hyponatremia (Jones&Bartlett, 2022). 2.Patient may experience hypercholesterolemia (Jones&Bartlett, 2022).	1. Patient may experience confusion or anxiety (Jones&Bartlett, 2022). 2.Patient may experience arrhythmias (Jones&Bartlett, 2022).	1.Patient may experience hemorrhage with severe bleeding risk (Jones&Bartlett, 2022). 2.Patient may experience melena (Jones&Bartlett, 2022).
Nursing Considerations (2)	1.Elderly patients are more common	1.This medication may result in	1. Long term treatment may decrease the	1. Monitor ECG on a patient	1.Monitor for bleeding

	to experience arrhythmias with this medication (Jones&Bartlett, 2022). 2.Azithromycin may impact to inaccurately change other lab values so ensure to notify the provider of abnormal lab values (Jones&Bartlett, 2022).	a skin rash (Drugs.com, 2022). 2.This assist the patient to cough up sputum and mucus, this is not a cure for the infection (Drugs.com, 2022).	patient's ability to maintain and absorb Vitamin B 12 (Jones&Bartlett, 2022). 2.Monitor patient for bone injuries, long term treatment increases the risk of fractures caused by osteoporosis (Jones&Bartlett, 2022).	receiving metoprolol due to increased risk of AV block (Jones&Bartlett, 2022). 2.When medication is discontinued expect to slowly reduce dosage over time (Jones&Bartlett, 2022).	and use strict caution to decrease risk of bleeding (Jones&Bartlett, 2022). 2.Avoid administering medications via injection to reduce risk of bleeding (Jones&Bartlett, 2022).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	1. Monitor the patient for blurred vision, chest pain, confusion due to this medication due to the impact on the cardiac system (Jones&Bartlett, 2022). 2.Monitor antibiotic therapy to ensure the antibiotic is assisting in the infection (Jones&Bartlett, 2022).	1.Encourage the patient to drink fluids to assist in thinning mucus (Drugs.com, 2022). 2. Assess the patient for dizziness and therapeutic effect of medication (Drugs.com, 2022).	1.Monitor INR and PT because the patient is taking this with an anticoagulant (Jones&Bartlett, 2022). 2.Monitor patients' electrolytes and urine output to ensure there is no decrease in renal function (Jones&Bartlett, 2022).	1.Monitor the patient's heartrate regularly (Jones&Bartlett, 2022). 2.Monitor the patients' blood pressure and ECG (Jones&Bartlett, 2022).	1.Monitor PTT levels closely to determine therapeutic levels (Jones&Bartlett, 2022). 2.Monitor patient for bleeding or wounds (Jones&Bartlett, 2022).
Client Teaching Needs (2)	1.Educate the patient that diarrhea may occur during treatment but if diarrhea	1.Educate the patient to stay hydrated to assist in thinning and loosening	1.Educate the patient to not break up the capsule, take it whole (Jones&Bartle	1.Educate the patient on the benefits of taking the medication	1.Educate the patient on the importance of having proper

	continues excessively to notify provider (Jones&Bartlett, 2022). 2.Educate the patient on the importance of finishing an antibiotic to receive the full effect (Jones&Bartlett, 2022).	mucus (Drugs.com, 2022). 2.Educate the patient that this medication may cause drowsiness so do not drive after administration (Drugs.com, 2022).	tt, 2022). 2.Educate the patient on the importance of following medication orders and do not take more than ordered (Jones&Bartlett, 2022). 3.Educate the patient to inform the provider if the patient experience decreased urinary output (Jones&Bartlett, 2022).	at the same time each day (Jones&Bartlett, 2022). 2.Educate the patient to call the provider if the heart rate is below 60 bpm (Jones&Bartlett, 2022). 3.Educate the patient not to suddenly stop the medication (Jones&Bartlett, 2022).	documents or medical ID that indicates blood thinners (Jones&Bartlett, 2022). 2.Educate the patient on signs and symptoms to report such as abdominal or back pain (Jones&Bartlett, 2022).

Medications Reference (1) (APA):

Drugs.com. (2022). *Guaifenesin*. Drugs.com https://www.drugs.com/guaifenesin.html

Jones & Bartlett Learning, LLC. (2022). 2022 Nurse's Drug Handbook (20th ed.).

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is alert and oriented to person, place, time, and situation. The patient does not appear to be in acute distress but does have minimal distress during ambulation due to shortness of breath. Patient is well groomed.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:**	Skin color is pink, dry and warm. Skin turgor is less than 3 seconds. No rashes or wounds noted. Bruising noted on left and right forearm. Braden Score: 19

Rashes: **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are symmetrical. Carotid pulses 2+ bilaterally Auricles appear with no lumps, lesions, or abnormalities. Eyes: sclera appears white bilaterally, cornea is clear bilaterally, PERRLA and EOMS bilaterally. Nose: septum is midline without deviation, no lumps or lesions noted. Poor dentition with remaining teeth, patient does have dentures. .
CARDIOVASCULAR: **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 S2 present, No murmur or gallops noted. Peripheral pulses are 2+ bilaterally, Capillary refill is <3 on all extremities. No neck vein distention noted. Edema noted on left and right foot as well as left and right legs. Edema 3+
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Breath sounds are diminished bilaterally. Wheezing appears in the left lung. No accessory muscles used, normal rate and rhythm, unlabored breathing during rest
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:**	Regular diet at home Current diet: cardiac Height: 5'9" Weight: 191 lbs. Bowel sounds are active in all 4 quadrants Last BM: 2/19/24 No distention noted. No incisions, drains or wounds. Patient does have scarring from previous surgeries. No lumps or masses noted, patient denies any abdominal pain.

Ostomy: Y ☐ N ☒ **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	Patient is voiding frequently due to Lasix Patient is ambulating to the restroom with 1 assist, walker, and gait belt. Color: yellow Character: cloudy Patient reports feelings of frequency, urgency, and hesitancy. Did not inspect genitals.
MUSCULOSKELETAL: **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☐**	Strength equal in all extremities. Hand grips and pedal pushes and pulls are equal in strength. Patient ambulates are a 1 assist with walker and gait belt. Patient needs some ADL assistance, but brushes teeth independently. Full range of motion in all 4 extremities. Active ROM. Fall risk, Fall score: 15.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	MAEW and PERLA present Equal strength in all extremities Patient is oriented to person, place, time, and situation. Patient is coherent and answering questions appropriately. Patient speaks clearly without difficulty. Patient is awake and alert.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Patient states they live with their daughter and she is their main support. The patient did not give much information regarding "coping" but does find themselves to be "religious" as stated by the patient. Support system was present today and seemed to be very involved in care.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0740	70 bpm	172/89	20	97.4F	96%
1118	68 bpm	149/82	20	98.2	94%

Vital Sign Trends: The patients vitals were stable from first vital sign to second vital signs. There was a notable change in blood pressure from 172/89 to 149/82, this shows a slight decrease between first vital completed to second vitals completed. This may be in relation to the administration of antihypertensive medication given.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0740	1-10	N/A	0-no pain	N/A	N/A
1118	1-10	N/A	0-no pain	N/A	N/A

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV:	20 G
Location of IV:	Right lower anterior and Left antecubital
Date on IV:	Both Placed: 2/17/24
Patency of IV:	Both Patency of IV: successful
Signs of erythema, drainage, etc.:	No signs of erythema, drainage on either IV
IV dressing assessment:	IV dressing is dry, clean, and intact on both IV sites

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
240 mL	Ambulated to the restroom 6 times to void

Nursing Care

Summary of Care (2 points)

Overview of care: Patient arrived in the emergency room on 2/17 related to shortness of breath. Patient was diagnosed with community acquired bacterial pneumonia and admitted for treatment. During my time working with the patient he woke up and ate breakfast. Following breakfast, the patient rested. We administered medication around 0900. The patient had an echocardiogram in the room around 1000. Following the echocardiogram, I assisted the patient with ambulating to the restroom to wash his face, brush his teeth, and receive a bed bath. I changed all linen and provided the patient with a new gown. Lunch was ordered and the patient rested.

Procedures/testing done: The patient received an X-ray and echocardiogram. The echocardiogram was performed in the patient's room so the patient did not leave the floor for that test.

Complaints/Issues: The patient had no complaints. The patient stated, "I feel like I am even starting to breathe better", with no following complaints.

Vital signs (stable/unstable): Stable involving slight changes in the blood pressure.

Tolerating diet, activity, etc.: The patient was on a cardiac diet but ate 100% of breakfast. The patient was not intaking many fluids, however the patient was using the urinal frequently. The patient ambulated to the restroom two times during shift to have a bowel movement. The patient ambulated well with assistance of walker and gait belt.

Physician notifications: No physician notifications. RN was notified of frequent voiding.

Future plans for client: Future plans include completing treatment related to pneumonia and completing another X-ray to see improvement. The patient will also meet with Cardiology related to their secondary diagnosis of Nstemi myocardial infarction. The patient will discharge with his daughter whom he lives with. She provides home care.

Discharge Planning (2 points)

Discharge location: Patient plans to discharge home with his daughter that takes care of him.

Home health needs (if applicable): The patient lives with his daughter and she provides most home health needs and is in contact with providers as necessary.

Equipment needs (if applicable): The patient may be sent home with an incentive spirometer to continue to increase lung capacity after pneumonia.

Follow up plan: Follow up plan includes completing antibiotic treatment related to bacterial pneumonia. Patient has been referred to cardiology for secondary diagnosis of Nstemi myocardial infarction. Patient will follow up with cardiology and their primary care provider with any questions or concerns.

Education needs: Educate the patient on community acquired bacterial pneumonia. Educate the patient on the importance of finishing medication to have a therapeutic effect. Provide education related to signs and symptoms to be aware of for respiratory distress, as well as the long term effects the patient may experience. Education related to secondary diagnosis may include diet modifications, signs and symptoms of myocardial infarction, and preventative measures to decrease the risk of another myocardial infarction.

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 • Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** • How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Impaired gas exchange related to medical diagnosis of pneumonia as evidence by findings on chest x-ray of pleural effusion and infiltrates, wheezing upon auscultation of lung sounds, and dyspnea.	The patient is admitted with pneumonia. The patient experiences dyspnea, respiratory distress with movement, and lab findings that suggest impaired gas exchanged related to medical diagnosis.	**1.**Provide the patient with an appropriate level of oxygen 2.Provide the patient with deep breathing exercises to encourage expelling mucus and fluids that may have accumulated in the lungs.	1. The outcome/goal is that the patient will maintain proper gas exchange with the assistance of deep breathing and coughing exercises and oxygen. The patient will be able to breath normally without distress.	The patient was receptive to the information and verbalized understanding. The patient listened to staff and used an incentive spirometer as well as getting out of bed to move secretions and promote the exploitation of mucus.
2. Ineffective	The patient	**1.** Assess the	1. The goal is	The patient was

tissue perfusion related to medical diagnosis of myocardial infarction as evidence by exertional dyspnea, edema, use of oxygen via nasal cannula and angina.	had a myocardial infarction and is referred to cardiology. Myocardial infarctions directly impact the heart and heart muscle, often times resulting in decreased cardiac output and ineffective tissue perfusion due to the hearts inability to properly pump blood post injury as shown by the clinical findings and symptoms.	patients' pulses, color, and temperature of skin to ensure proper blood flow. **2.**Administer aspirin to ensure blood flow in arteries that may be constricted	that the patient will have skin color, temperature and pulses in normal range. Decreased risk of heart damage and further concern.	receptive to the plan of care. The patient was alert and aware of what had occurred. The patient verbalized understanding and willingness for treatment.
3. Fluid volume overload related to medical diagnosis of myocardial infarction as evidence by elevated troponin, elevated BNP, wheezing in the lungs, and 3+ edema in both legs.	The patient is experiencing fluid volume overload due to the myocardial infarction. The heart is damaged and not pumping blood properly, so waste and fluids accumulate inside the body increasing fluid volume	1.Monitor the patient's intake and output 2. Provide diuretics as ordered	1. The outcome/goal is to reduce the amount of fluid accumulation in the body. Monitoring the patient's intake and output will allow us to determine how much the patient is retaining compared to releasing. The diuretics	The patient was receptive to care and verbalized understanding. The patient used the restroom multiple times following diuretics administration.

	in the body.		will assist in ridding the body of fluid through urination.	
4. Risk for fall related to imbalance as evidence by assistive devices such as walker, glasses, and hearing aids.	The patient is 96 years old and uses a walker, glasses, and hearing aids in daily life due to unsteady gait. This increases the likelihood of a fall.	1.Assist the patient when using the restroom or ambulating anywhere. 2. Ensure the patient has their assistive devices available	1. The outcome/goal is to ensure patient safety and decrease the risk of a fall.	The patient was receptive to care and verbalized understanding. The patient did attempt to get out of bed alone multiple times and would have to be reminded on the importance of waiting for assistance.

Other References (APA):

Concept Map (20 Points):

Subjective Data

-Patient reports feeling tired and fatigue
-Patient reports not feeling hungry prior to admission to hospital
-Patient reports feeling hesitancy when urinating
-Patient reported feeling as though he was "starting to breathe better"

Nursing Diagnosis/Outcomes

1. Impaired gas exchange related to medical diagnosis of pneumonia as evidence by findings on chest x-ray of pleural effusion and infiltrates, wheezing upon auscultation of lung sounds, and dyspnea.
-Desired outcome: The outcome/goal is that the patient will maintain proper gas exchange with the assistance of deep breathing and coughing exercises and oxygen. The patient will be able to breath normally without distress.
2. Ineffective tissue perfusion related to medical diagnosis of myocardial infarction as evidence by exertional dyspnea, edema, use of oxygen via nasal cannula and angina.
-Desired outcome: The goal is that the patient will have skin color, temperature and pulses in normal range. Decreased risk of heart damage and further concern.
3. Fluid volume overload related to medical diagnosis of myocardial infarction as evidence by elevated troponin, elevated BNP, wheezing in the lungs, and 3+ edema in both legs.
-Desired outcome: The outcome/goal is to reduce the amount of fluid accumulation in the body. Monitoring the patient's intake and output will allow us to determine how much the patient is retaining compared to

Objective Data

-Height: 5'9"
-Weight: 191 lbs
-Diagnosis of Myocardial infarction and community acquired bacterial pneumonia
-Elevated troponin & BNP
-pleural effusion & infiltrates seen on chest X ray
-Diminished lung sounds with wheezing
-Pulse: 70 bpm
BP: 149/82
Resp rate: 20
Temp: 97.4F
Oxygen: 94%

Client Information

J.A.W.
96 year old Male
Retired
Single
Full Code
Admitted on 2/17/24

Nursing Interventions

Diagnosis 1: Provide the patient with an appropriate level of oxygen and deep breathing exercises to encourage expelling mucus and fluids that may have accumulated in the lungs.

Diagnosis 2: 1. Assess the patients' pulses, color, and temperature of skin to ensure proper blood flow. Administer aspirin to ensure blood flow in arteries that may be constricted.

Diagnosis 3: Monitor the patient's intake and output closely. Supply diuretics as ordered to encourage fluid release.

Diagnosis 4: Assist the patient when ambulating and ensure the patient always has access to assistive devices.