N321 Care Plan #1

Lakeview College of Nursing

Brittney J. Burns

September 22, 2023

Demographics (3 points)

Date of Admission 09/15/23	Client Initials KC	Age 49	Gender M
Race/Ethnicity White Non-Hispanic	Occupation Unemployed	Marital Status S	Allergies Bee Venom, Penicillin G
Code Status Full	Height 185.4 cm, 6'1	Weight 123.832 kg, 273 lb.	

Medical History (5 Points)

Past Medical History: Arthritis, Bone spur bilateral leg, diabetes (HCC), HNT, Enlarged heart, Carpal tunnel syndrome right arm, hyperlipidemia

Past Surgical History: Bilateral hip replacement, Appendectomy, tonsillectomy

Family History: Mother- cancer, Father Alzheimer's, Arthritis, diabetes, HNT. Both mother and father are deceased.

Social History (tobacco/alcohol/drugs including frequency, quantity, and duration of use): Client denies tobacco, alcohol, and drug use.

Assistive Devices: Cane

Living Situation: Lives alone, apartment

Education Level: High school graduate, some college

Admission Assessment

Chief Complaint (2 points): SOB

History of Present Illness – OLD CARTS (10 points): On September 15, a non-Hispanic white male with a past medical history of hypertension and high cholesterol diabetes was brought in as a patient noted shortness of breath for three weeks. The client initially thought it was because of black mold he found in his home. The patient has a past medical

history of an enlarged heart. He had an elevated D timer at the time of the ER visit. He has not taken his meds for some time, as they were stolen. The case manager was notified. The client noted elevated lactic acid, unsure if it's secondary to metformin, and an X-ray was done. There is possible pneumonia. CT did not show any PE. The client denies fever, chills, vomiting, and nausea.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Pneumonia

Secondary Diagnosis (if applicable): Enlarged heart, Cardiomegaly.

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

Pneumonia is a prevalent disease and carries a heavy burden in all populations. A study carried out by the *US Centers for Disease Control and Prevention* (CDC) aimed at estimating its burden in North America found that CAP accounted for the eighth leading cause of mortality in the United States and the seventh leading cause of mortality in Canada after adjusting for various gender and age differences (Jain et al., 2023). So, what exactly is pneumonia? Pneumonia has been defined as an infection of lung parenchyma. (Jain et al., 2023). There are three types of pneumonia; community-acquired pneumonia (CAP) is acquired outside of a hospital setting. Hospital-acquired pneumonia (HAP) is acquired within 48 hours of a patient being admitted into a hospital and not incubating at admission. There is also ventilator-associated pneumonia (VAP), any pneumonia acquired 48 hours after endotracheal incubation.

Researchers have found that in the lower respiratory tract, there is a delicate balance between the living organisms and the innate and acquired local and systemic defensive mechanisms. When the balance is upset, pneumonia, an inflammation of the lung parenchyma,

results. The local macrophages serve to guard the lung against external infections. The macrophages' inflammatory response causes the histological and clinical characteristics of pneumonia. When macrophages engulf pathogens, signaling molecules or cytokines like TNF-a, IL-8, and IL-1 are released, which attract inflammatory cells like neutrophils to the infection site. They also deliver these antigens to T cells, which activate complement, activate cellular and humoral defense mechanisms, and produce antibodies against these pathogens. As a result, the lung parenchyma becomes inflamed, and the lining capillaries become "leaky," which highlights the etiology of pneumonia and results in exudative congestion.

Cardiomegaly is an umbrella designation for various conditions leading to heart enlargement, which usually remains undiagnosed until the symptoms ensue. It has become increasingly prevalent and carries a high mortality rate. Cardiomegaly means enlargement of the heart (Hina et al., 2022). Both hereditary and non-genetic factors are involved in the complex process of cardiac remodeling and hypertrophy development. Dilated hypertrophy, fibrosis, and contractile dysfunction are the three most critical pathophysiological alterations that result in cardiomegaly. Cardiomegaly is generally diagnosed through imaging techniques that measure the size and efficiency of the heart.

Pathophysiology References (2) (APA):

Jain V, Vashisht R, Yilmaz G, et al. Pneumonia Pathology. [Updated 2023 Jul 31]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK526116/

Amin H, Siddiqui WJ. Cardiomegaly. [Updated 2022 Nov 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK542296/

Laboratory Data (15 points)

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

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	**3.80-5.30 10(6) mL**	**5.26**	**5.52**	
Hgb	**13.0-16.5 g/dl**	**14.6**	**15.6**	
Hct	**38.0-50%**	**44.5**	**46.7**	
Platelets	**140-440 10 (3) mcL**	**138**	**156**	
WBC	**4.00-12.00 10 (3) mcL**	**10.00**	**10.50**	
Neutrophils	**47.0-73.0%**	**55.2**	**60.9**	
Lymphocytes	**19.0-49%**	**35.4**	**28.5**	
Monocytes	**3.0-13.0%**	**5.3**	**7.3**	
Eosinophils	**0.0-8.0%**	**3.2**	**2.5**	
Bands	**0.0-1.0%**	**0.9**	**0.8**	

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-	**135-144 mmol/L**	**139**	**137**	
K+	**3.5-5.1 mmoL/L**	**4.2**	**4.1**	
Cl-	**98-108 mmoL/L**	**107**	**104**	

CO2	**20-31 mmoL/L**	**19**	**21**	
Glucose	**70-99 mg/dL**	**268**	**179**	
BUN	**7-25 mg/dL**	**11**	**22**	
Creatinine	**0.5-1.00 mg/dL**	**1.07**	**1.03**	
Albumin	**3.5-5.7 g/dL**	**4.3**	**4.6**	
Calcium	**8.8-10.2**	**9.2**	**9.6**	
Mag		**N/A**	**N/A**	
Phosphate		**N/A**	**N/A**	
Bilirubin		**0.7.**	**0.9**	
Alk Phos		**73**	**72**	
AST		**N/A**	**N/A**	
ALT		**N/A**	**N/A**	
Amylase		**N/A**	**N/A**	
Lipase		**N/A**	**N/A**	
Lactic Acid		**3.8**	**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		**N/A**	**N/A**	
PT		**N/A**	**N/A**	

PTT		**N/A**	**N/A**	
D-Dimer		**1,086**	**N/A**	**elevated**
BNP		**616**	**N/A**	
HDL		**25**	**N/A**	
LDL		**68**	**N/A**	
Cholesterol		**149**	**N/A**	
Triglycerides		**282**	**N/A**	
Hgb A1c		**8.6**	**N/A**	
TSH		**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		**N/A**	**N/A**	
pH		**N/A**	**N/A**	
Specific Gravity		**N/A**	**N/A**	
Glucose		**N/A**	**N/A**	
Protein		**N/A**	**N/A**	
Ketones		**N/A**	**N/A**	
WBC		**N/A**	**N/A**	
RBC		**N/A**	**N/A**	
Leukoesterase		**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	Value on	Today's	Explanation of Findings

	Range	Admission	Value	
Urine Culture	**NEG**	**N/A**	**N/A**	
Blood Culture	**NEG**	**PENDING**	**N/A**	
Sputum Culture	**NEG**	**N/A**	**N/A**	
Stool Culture	**NEG**	**N/A**	**N/A**	

Lab Correlations Reference (1) (APA):

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

X-ray chest single view

Findings: A single portable view made of the chest in poor inspiratory effort demonstrates:

1. **The heart size to be normal**
2. **The hilar perihilar and the apical structures are unremarkable.**
3. **Mild right infrahilar opacity which may suggest at the electrons and/or pneumonia mild linear discoid plate like atelectasis.**
4. **The cestophrenic angles are cleare**
5. **No mediastinal or osseow abnormality.**

CT Chest w/ Contrast

Findings:

1. **The heart size is normal. No pericardial effusion.**
2. **Thoracic aorta is of normal caliber. There is no evidence of aneurysm enlargement.**
3. **Main pulmonary artery, right pulmonary artery, left pulmonary artery, and segmental lobar pulmonary arterial branches show no evidence very embolism.**

4. **Enlarged lore paratracheal and right subcarinal calcified lymphocytes related to old gradual disease small nodes noted in the cardiopulmonary window no evidence of any hilar lymphadenopathy.**
5. **Pleural effusions larger on the right.**
6. **No pneumothorax.**
7. **Ground glass appearance of lung fields which is nonspecific. May be related to congestion right infrahilar opactio probably a telectasis and/or pneumonia.**
8. **Portions of the abdomen imaged are unremarkable.**

Diagnostic Test Correlation (5 points):

Diagnostic Test Reference (1) (APA):

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

Home Medications (5 required)

Brand/Generic	**glimepiride Amaryl**	**atorvastatin Lipitor**	**amloDIPINE Norvasc**	**metoprolol succinate Toprol-XL**	**desvenlafaxine succinate**
Dose	**1mg**	**2mg**	**10mg**	**25mg**	**100mg**
Frequency	**Daily**	**Daily NOC**	**Daily**	**Daily**	**Daily**
Route	**Oral**	**Oral**	**Oral**	**Oral**	**Oral**
Classification	**Antidiabetic**	**Antihyperlipidemic**	**Calcium blocker**	**Beta-blocker**	**Antidepressants**
Mechanism of Action					
Reason Client Taking					
Contraindications (2)					
Side Effects/Adverse Reactions (2)					
Nursing Considerations (2)					

Hospital Medications (5 required)

Brand/Generic	**cefuroxime Ceftime**	**empagliflozin Jardiance**	**Lovenox**	**Lasix**	**azithromycin Zithormax**
Dose	**500 mg**	**10mg**	**40mg**	**40mg**	**250mg**
Frequency	**6 doses 2x daily**	**Daily**	**Daily**	**Daily**	**Daily**
Route	**Oral**	**Oral**	**Sub-Q injection**	**Intravenous**	**Oral**
Classification					**Antibiotic**
Mechanism of Action					
Reason Client Taking	**CAP**				**CAP**
Contraindications (2)					
Side Effects/Adverse Reactions (2)					
Nursing Considerations (2)					

Medications Reference (1) (APA):

Assessment

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

GENERAL: No apparent distress **Alertness: A&O x4** **Orientation:** **Distress:** **Overall appearance: Neat**	
INTEGUMENTARY: **Skin color:** **Character:** **Temperature: 97** **Turgor: Normal** **Rashes: none present** **Bruises: none present** **Wounds: none** **Braden Score: 22** **Drains present: Y☐ N ☒** **Type:**	
HEENT: Atraumatic, symmetrical bilaterally. **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	.
CARDIOVASCULAR: **Heart sounds: S1 S2 sounds** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:**	.

Capillary refill: 3 seconds **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **Clear**	.
GASTROINTESTINAL: **Diet at home: Regular** **Current Diet Cardiac** **Height: 6'1** **Weight: 273 lbs** **Auscultation Bowel sounds: within normal limits** **Last BM: 9/15/23** **Palpation: Pain, Mass etc.: Void of pain and masses** **Inspection:** **Distention: WDL** **Incisions: None** **Scars: LLQ scar** **Drains: none** **Wounds: none** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	.
GENITOURINARY: DID NOT COLLECT **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	
MUSCULOSKELETAL: **Neurovascular status: WDL** **ROM: WDL**	.

Supportive devices: Cane **Strength: WDL** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score: 21** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Cane** **Needs support to stand and walk☐**	
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation: A&O x4** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.
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):**	.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
3 am	**92**	**111/81**	**18**	**97**	**98%**
8am	**95**	**116/86**	**18**	**97**	**98%**

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
8:30	**0-10**	**Flank**	**3**	**Throbbing**	**Meds were given on time**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV:22 **Location of IV: Posterior rt hand** **Date on IV: 9/18/23** **Patency of IV: clean dry intact** **Signs of erythema, drainage, etc.: No** **IV dressing assessment: clean dry new dressing**	

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
480mL	**Void 3x**

Nursing Care

Summary of Care (2 points)

Overview of care: Patient was anxious, fearful, nervous, and upset, however he was cooperative

Procedures/testing done: Grievance was being filed against the House supervisor due to a rooming dispute.

Complaints/Issues: Shortness of breath, and flank pain. Complaint against house supervisor.

Vital signs (stable/unstable): Stable

Tolerating diet, activity, etc.: Tolerating cardiac diet. Patient was able to ambulate the roon.

Physician notifications: Flank pain

Future plans for the client: Transferred to HMMC

Discharge Planning (2 points)

Discharge location: HMMC

Home health needs (if applicable): N/A

Equipment needs (if applicable): Glucometer

Follow-up plan: Sleep apnea consult, Hyperlipidemia restart

Education needs Anger management, Grief counseling, and proper medication administration.

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

Nursing Diagnosis • Include complete 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. Decreased cardiac output related to diabetic medication not being taken as evidenced by	**The client's medication was stolen from his home, and he has not**	**1. Teach the patient and family about the prescribed diet,**	**1. Understand the importance of following a prescribed**	**New medication was sent to the pharmacy to correct the issue.**

abnormal glucose labs	**been taking his medication as prescribed.**	**medications (name, dosage, frequency, and therapeutic and adverse effects), prescribed activity level, simple methods for lifting and bending, and stress-reduction techniques. These measures involve patients and their families in care.** **2. Family about reportable symptoms of possible cardiac problems. Dizziness, digestion, nausea, shortness of breath, unusual fatigue, weakness, and retrosternal pain. Knowing the symptoms of decreased cardiac**	**diet, taking medications as ordered, and maintaining activity level.**	

		functioning gives the patient greater control over the situation and encourages compliance with the treatment plan.		
2. Ineffective tissue perfusion (cardiopulmonary) related to pneumonia as evidenced by shortness of breath.	**The patient was diagnosed with pneumonia.**	**1. Begin oxygen support using the most minor concentration needed to make the patient comfortable; monitor closely to avoid oxygen toxicity.** **2. Avoid respiratory depressants such as opioids, sedatives, and paralytics to facilitate patients' recovery.**	**1. Patients' ABG levels are within normal parameters.**	**The patient was educated on how pneumonia could also affect the cardiopulmonary system. The patient was educated on how the shortness of breath affects the lungs and heart.**
3. Anxiety related to a new diagnosis, as evidenced by the patient asking questions about the next step of	**The patient was being transferred to another facility with a cardiac**	**1. Give the patient a clear, concise explanation of anything about to**	**1. The patient communicates with the nurse or family**	**The patient explained to the student nurse why this was causing so much anxiety. The**

their care.	**unit to start getting a pacemaker.**	**occur. Avoid information overload; anxious patients cannot assimilate many details. Anxiety may impair a patient's cognitive abilities.** **2. Attend to patients' comfort needs to increase trust and reduce anxiety.**	**members to gain reassurance, information, or emotional support.**	**patient revealed that his father died from complications of the heart.**

Other References (APA):

Phelps, L. L. (2023). ***Nursing diagnosis reference manual*****. Wolters Kluwer.**

Concept Map (20 Points):

Subjective Data

Medication was stolen from patient's home . The patient stated elevated lactic acid. Denies fever chills vomiting and nausea.

Abdominal labs CT didn't show PE. X-ray shows possible pneumonia.

Objective Data

Nursing Diagnosis/Outcomes

1. **Ineffective tissue perfusion (cardiopulmonary) related to pneumonia as evidenced by shortness of breath.**

   Outcome: **New medication was ordered to correct the medication error.**

2. Decreased cardiac output related to diabetic medication not being taken as evidenced by abnormal glucose labs

   Outcome: The patient was educated on how pneumonia could also affect the cardiopulmonary system. The patient was educated on how the shortness of breath affects not only the lungs but also the heart.

3. Ineffective tissue perfusion (cardiopulmonary) related to pneumonia as evidenced by shortness of breath.

   Outcome: The patient explained to the student nurse why this was causing so much anxiety. The patient revealed that his father died from complications of the heart.

Client Information

K.C, 49 non Hispanic white male. Unemployed

Nursing Interventions