N311 Care Plan 5

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N311: Foundations of Professional Practice

Michele Hartke

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Demographics (5 points)

Date of Admission 10/30/2023	Client Initials MC	Age 83	Gender M
Race/Ethnicity White or Caucasian	Occupation Retired	Marital Status Married	Allergies None
Code Status Full code	Height 5'9	Weight 151 lbs 3.2 oz	

Medical History (5 Points)

Past Medical History: (no dates provided)

- Arthritis
- Bladder cancer (HCC)
- Benign prostatic hyperplasia (BPH)
- Depression
- Diabetes mellitus (HCC)
- Hypertension
- Stroke (HCC)

Past Surgical History: None

Family History: None

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

Former cigarette smoker, quit 7/5/2022, average of 0.5 packs per day for 60 years, pack years 30. Patient denies any use of vapes or alcohol. Takes 5 mg CBD and 5mg of THC gummy for sleep daily.

Admission Assessment

Chief Complaint (2 points): Generalized weakness and dizziness

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

MC was experiencing generalized weakness and dizziness for 2 weeks before seeking medical attention. The weakness and dizziness were "the worst in the morning" but remained throughout the day. MC stated he felt extreme fatigue and feeling dizzy even at rest, activity and less sleep

seemed to make the symptoms worse. Rest and minimal activity helped relieve the symptoms and he was not using any other treatment. The severity of the dizziness and weakness was mild.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Pneumonia of right upper lobe due to infectious organism

Secondary Diagnosis (if applicable): N/A

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

Pneumonia is an infection of the lungs that is commonly seen in immunocompromised individuals such as the elderly and children. Pathogens replicate in the alveoli and lower airways, causing an influx of inflammatory exudate fluid, causing pneumonia (Pates, K. M., 2023). When the pulmonary space is overcome by a great number of pathogens that can either be bacterial or viral, it causes an inflammatory response and leads to an impairment of gas exchange. Impaired gas exchange causes a systemic response in the body and can lead to infection of the heart, CNS, or joints, sepsis, and acute respiratory failure can be a complication as well (Pates, K. M., 2023). Pneumonia could also be a secondary infection to a prior one. An example of this includes an infected port or hemodialysis catheter that spreads to the lungs. The following are signs and symptoms of pneumonia: headache, fever, chills, chest pain, shortness of breath, GI symptoms, productive cough, tachypnea, tachycardia, crackles on auscultation, low oxygen saturation, and altered mental status (Pates, K. M., 2023). A chest x-ray or CT, including a CBC and renal function test, should be performed to diagnose individuals with pneumonia (Pates, K. M., 2023). Immunocompromised individuals may receive a bronchoscopy with BAL to gather samples and distinguish the presence of a pathogen (Gupta Brixey, A., 2022). In addition to the previous

diagnostic tests, a sputum and blood culture, and pleural fluid tests can be done to identify the presence of infection (Gupta Brixey, A., 2022). In collecting these specimens for culture, the type of pathogen can be identified which would determine the treatment for the client. A client is likely started on antibiotics (after specimen collection) with a suspected infection. Clients who have symptoms of sepsis as well should be hospitalized and started on IV antibiotics (Pates, K. M., 2023). The clients should also be informed to drink lots of fluids as well as rest. Some examples of common antibiotics used to treat pneumonia include doxycycline, amoxicillin, or a macrolide (Pates, K. M., 2023). Aspiration pneumonia and MRSA infection clients will also take antibiotics but will likely take a different one such as vancomycin. Clients who have viral pneumonia will take antiviral medications such as ritonavir or nirmatrelvir as long as they are within the window to qualify for antiviral treatment (Pates, K. M., 2023).

Pathophysiology References (2) (APA):

Gupta Brixey, A., Reddy, R., & Giovanni, S. P. (2022). Nonimaging diagnostic tests for pneumonia. *Radiologic Clinics of North America*, *60*(3), 521-534.

Pates, K. M., Periselneris, J. N., & Brown, J. S. (2023). Pneumonia. *Medicine*, *51*(11), 763-767.

Laboratory Data (20 points)
If laboratory data is unavailable, values will be assigned by the clinical instructor

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	**4.35-5.65**	**4.91**	**3.82**	**RBC carry hemoglobin to disperse oxygen, if hemoglobin is low, RBC's are likely low as well. Since the client has pneumonia and is experiencing impaired gas exchange, this could affect the oxygen saturation in the blood, which affects RBC's (Rischer, K., 2022).**
Hgb	**14-17.3**	**14.6**	**10.3**	**RBC carry hemoglobin to disperse oxygen, if hemoglobin is low, RBC's are likely low as well. Hemoglobin is the oxygen-carrying factor within RBC's. Since the client has pneumonia and is experiencing impaired gas exchange, this could affect the oxygen saturation in the blood, which affects hemoglobin (Rischer, K., 2022).**
Hct	**38.3-48.6**	**39.2**	**30.7**	**Hematocrit is closely correlated with the hydration status of the client. A low level of hematocrit indicates an insufficient intake of fluids (Rischer, K., 2022).**
Platelets	**135-317**	**440**	**387**	**Any client who takes heparin, has their platelet count closely monitored. Since this client is experiencing a higher level of platelets, the risk for heparin-induced thrombocytopenia is not a concern. The reasoning for an elevated platelet count is likely due to his pneumonia infection (Rischer, K., 2022).**
WBC	**4.5-11.1**	**7.5**	**6.5**	**N/A**
Neutrophils	**2.5-7**	**72**	**65.9**	**Neutrophils are the "first responders" when an infection is present. The client is hospitalized for pneumonia, which is a lung infection. An elevation of neutrophils is expected to see with a client who has a bacterial infection (Rischer, K., 2022).**
Lymphocytes	**4.5-11**	**16.1**	**10.8**	**Lymphocytes are used to detect a viral infection. There is a possibility the client had a viral infection when**

				he was first admitted to the hospital. Since the level of lymphocytes is normal today, the viral infection is likely gone or in the convalescent stage (Rischer, K., 2022).
Monocytes	**3-13**	**8.3**	**8.7**	**N/A**
Eosinophils	**0.3-3.5**	**3.1**	**3.2**	**N/A**
Bands	**0-0.3**	**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**	**139**	**142**	**N/A**
K+	**3.5-5.2**	**4**	**3.8**	**N/A**
Cl-	**96-106**	**105**	**92**	**Chloride is used to determine the status of hydrochloric acid balance and hydration level within the body. The client had a decreased level of hematocrit, which indicates poor fluid intake. The low level of chloride is also supporting the indication of poor fluid intake with the client (Rischer, K., 2022).**
CO2	**20-29**	**26**	**24**	**N/A**
Glucose	**70-99 Fasting**	**155**	**76**	**The client has a diagnosis of diabetes mellitus and had not received his morning dose of insulin before his blood glucose level was checked. This is likely the reason for the elevation of his blood glucose.**
BUN	**6-24**	**10**	**8**	**N/A**
Creatinine	**0.6-1.2**	**0.61**	**0.54**	**The client does not have a history of any renal issues, however, he was diagnosed with bladder cancer. Since the value of his**

				creatine is slightly lower than normal, this is likely due to a poor diet or fluid intake (Rischer, K., 2022).
Albumin	**3.5-5.5**	**3.6**	**2.8**	**Albumin is a protein that is typically acquired in diet. The low level of albumin is likely because of improper nutrition. The client was placed on a dysphagia III diet in the hospital, while he eats a regular diet at home. The client stated he "hates" the hospital food and does not like to eat much of this. With having pneumonia, the client has had a decrease in appetite as well. This reasoning could also explain why his admission value of albumin was normal and is normal today (Rischer, K., 2022).**
Calcium	**8.5-10.2**	**9**	**8.4**	**Since the client's calcium level is 0.1 lower than the normal range, this is likely due to his diet. Hypocalcemia goes hand in high with albumin as well, if one if low the other likely is as well. Diet, nutrition, and pancreatitis are complications of hypocalcemia (Rischer, K., 2022).**
Mag	**1.6-2.6**	**2**	**1.8**	**N/A**
Phosphate	**2.8-4.5**	**N/A**	**N/A**	**N/A**
Bilirubin	**0.2-1.3**	**0.4**	**0.3**	**N/A**
Alk Phos	**44-147**	**145**	**101**	**N/A**

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Pale, light**	**Clear,**	**Clear,**	**N/A**

	yellow	**yellow**	**yellow**	
pH	**4.6-8**	**5**	**5.5**	**N/A**
Specific Gravity	**1.005-1.03**	**1.03**	**1.008**	**N/A**
Glucose	**0-0.8**	**Negative**	**Negative**	**N/A**
Protein	**0-0.15**	**Negative**	**Negative**	**N/A**
Ketones	**0-0.6**	**Negative**	**Negative**	**N/A**
WBC	**2-5**	**Negative**	**Negative**	**N/A**
RBC	**0-4**	**Negative**	**Negative**	**N/A**
Leukoesterase	**0-15**	**Negative**	**Negative**	**N/A**

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

Test	**Normal Range**	**Value on Admission**	**Today's Value**	**Explanation of Findings**
Urine Culture	**10,000-100,000**	**N/A**	**N/A**	**N/A**
Blood Culture	**4.32-5.72**	**N/A**	**In process**	**N/A**
Sputum Culture	**>25<10**	**N/A**	**N/A**	**N/A**
Stool Culture	**7-7.5**	**N/A**	**N/A**	**N/A**

Lab Correlations Reference (1) (APA):

Rischer, K. (2022). *Think like a nurse: Vol. II. Building the knowledge for professional practice*.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

Chest CT for possible aspiration pneumonia, centrilobular emphysema, no pulmonary embolism (PE) (10/31/2023).

Chest CT (computed tomography) is an imaging diagnostic test to detect abnormalities within the pulmonary structures. In addition to diagnosing pneumonia, chest CT can determine cancer staging, other pulmonary or cardiac disease, condition of the lungs or heart, and response to therapy.

Diagnostic Imaging Reference (1) (APA):

Strange, C., Shroff, G. S., Truong, M. T., & Rohren, E. M. (2021). Pitfalls in interpretation of PET/CT in the chest. *Seminars in Ultrasound, CT and MRI*, *42*(6), 588-598.

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Medications (5 required)

Brand/ Generic	**Heparin Lock Flush/Heparin**	**Prinivil/ Lisinopril**	**Zofran/ Ondansetron**	**Robaxin/ Methocarbamol**	**Plavix/ Clopidogrel**
Dose	5,000 units	5mg	4mg	950mg	75mg
Frequency	Every 8hrs, 3x daily	Once daily	Every 6hrs	Three times daily, PRN	Once daily
Route	Subcutaneous injection	Oral tablet	Intravenous	Oral tablet	Oral tablet
Classification	Anticoagulant	Antihypertensive	Antiemetic	Skeletal muscle relaxant	Platelet aggregation inhibitor

Mechanism of Action	Heparin strengthens thrombin (coagulation enzyme, factor IIa) and factors Xa, and XIa's deactivation when it binds to antithrombin III. Heparin inhibits Xa and stops prothrombin from converting to thrombin at low doses. Thrombin is required for the conversion of fibrinogen to fibrin; clots cannot form in the absence of fibrin. At larger doses, heparin holts the synthesis of fibrin and the growth/spread of preexisting clots (Barlett &	Lisinopril prevents the conversion of angiotensin I to angiotensin II. Angiotensin II causes the adrenal cortex to release aldosterone. Lisinopril prevents the vascular and renal tissues from producing angiotensin II. Reduced aldosterone lowers reabsorption of water and salt and increases the excretion of both, consequently causes a decrease in blood pressure (Barlett & Jones, 2023).	Ondansetron blocks serotonin receptors at the intestinal vagal nerve terminals and centrally in the chemoreceptor trigger zone. This action including obstructing signals to the CNS, lessens nausea and vomiting. A likely cause of nausea and vomiting is radiation or chemotherapy induced, which ondansetron can reduce. Ondansetron can also bind to mu-opioid receptors amongst other serotonin receptors (Barlett & Jones, 2023).	Methocarbamol causes CNS depression that decreases skeletal muscle spasms and induces drowsiness or sleep. The drug also modifies how pain is perceived (Barlett & Jones, 2023).	Clopidogrel binds to active platelet surfaces, specifically to ADP. ADP is blocked which causes the surrounding glycoproteins to become inactive, and fibrinogen is unable to bind to the receptors. This prevents platelets from coagulation and form thrombi in the absence of fibrinogen (Barlett & Jones, 2023).

	Jones, 2023).				
Reason Client Taking	Prevent pulmonary embolism.	Treat and control hypertension.	Nausea, first line.	Joint/muscle pain/discomfort.	History/ recent diagnosis of a CVA.
Contraindications (2)	1.Hypersensitivity to pork 2.Uncontrolled active bleeding (Barlett & Jones, 2023)	1.History of angioedema due to previous treatment of an ACE inhibitor 2.Use of a neprilysin inhibitor within the past 36 hours of the initial dose of lisinopril (Barlett & Jones, 2023)	1.Concurrent use of amorphine 2.Hypersensitivity to ondansetron and its components (Barlett & Jones, 2023)	1.Hypersensivity to methocarbamol or its components (Barlett & Jones, 2023)	1.Intracranial hemorrhage 2.Peptic ulcer (Barlett & Jones, 2023)
Side Effects/Adverse Reactions (2)	1.Chest pain 2.Pruritis (Barlett & Jones, 2023)	1.Dry mouth 2.Abdominal pain (Barlett & Jones, 2023)	1.Anxiety 2.Hiccups (Barlett & Jones, 2023)	1.Hypotension 2.Headache (Barlett & Jones, 2023)	1.Confusion 2.UTI (Barlett & Jones, 2023)

Medications Reference (1) (APA):

Bartlett & Jones, (2023). *Nurses Drug Handbook* (22nd ed.). Jones and Bartlett Learning.

Assessment

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

GENERAL: **Alertness: A/O x3** **Orientation: A/O x3** **Distress: None** **Overall appearance: Lethargic**	

INTEGUMENTARY: **Skin color: Normal for ethnicity** **Character: Dry, cracked** **Temperature: Warm** **Turgor: Recoils immediately** **Rashes: None** **Bruises: None** **Wounds: None** **Braden Score: 13** **Drains present: Y☐ N ☒** **Type:**	
HEENT: **Head/Neck: Normocephalic, symmetrical** **Ears: Auricle intact, symmetrical, no drainage** **Eyes: PERRLA intact, conjunctiva clear** **Nose: Mucosa clear and normal, no drainage** **Teeth: Few teeth missing, poor oral care**	.
CARDIOVASCULAR: **Heart sounds: S1 and S2 clear without murmurs** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable): Normal sinus rhythm** **Peripheral Pulses: Palpable and present +2 bilaterally** **Capillary refill: Less than 3 seconds** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema: None**	.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **Clear vesicular breath sounds bilaterally**	.
GASTROINTESTINAL: **Diet at home: General** **Current Diet: Dysphagia III** **Height: 5'9** **Weight: 151 lbs 3.20oz** **Auscultation Bowel sounds: Hyperactive** **Last BM: 10/30/2023** **Palpation: Pain, Mass etc.: No pain or masses noted on palpation**	.

Inspection: No abnormalities **Distention: None** **Incisions: None** **Scars: None** **Drains: None** **Wounds: None** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY: **Color: Light yellow** **Character: Clear without foul odor** **Quantity of urine: Normal, 900 mL** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals: Normal** **Catheter: Y ☐ N ☒** **Type:** **Size:**	
MUSCULOSKELETAL: **Neurovascular status: Normal** **ROM: Limited on right side** **Supportive devices: Hoyer lift** **Strength: Normal on left side, absent on right side** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 79** **Activity/Mobility Status: Right-sided extremity paralysis, bed rest** **Independent (up ad lib) ☐ NO** **Needs assistance with equipment ☐ YES** **Needs support to stand and walk ☐ YES**	.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☒ if no -** **Legs ☐ Arms ☐ Both ☒** **Orientation: x3** **Mental Status: Normal** **Speech: Normal and appropriate for stated age**	.

Sensory: Aware **LOC: Lethargic**	
PSYCHOSOCIAL/CULTURAL: **Coping method(s): Enjoys watching TV.** **Developmental level: Appropriate for stated age.** **Religion & what it means to pt.: Catholic, does not practice as much as he used to but likes to bring a cross with him, currently has one in his room.** **Personal/Family Data (Think about home environment, family structure, and available family support): Lives at home with daughter, granddaughter, and grandson.**	.

Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	56	140/75	18	97.7 F	98

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0923	0	N/A	N/A	N/A	N/A

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
800	900

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

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 diagnosis of pneumonia as evidenced by infectious organism in right upper lobe as. (Phelps, 2023).	**The client was hospitalized for generalized weakness due to an infection in the right lung. The chest x-ray revealed centrilobular emphysema which damages the lung structures and puts client at risk for pneumothorax caused by impaired gas exchange.**	**1.Reposition the patient every 2 hours to promote excretion of fluid from the lungs (Phelps, 2023).** **2. Monitor the patient's oxygen saturation level every 4 hours (Phelps, 2023).**	**1. The patient's oxygen saturation level will not drop below 90% before anticipated discharge date.**	**The client was accepting of the interventions and was educated on the importance of them. The client wants to go home to his family and is motivated to get healthy. The client wishes to feel better and states he will reposition himself every 2 hours at home.**
2. Risk for aspiration related to weak swallowing reflexes as evidenced	**History of a cerebral vascular accident (CVA, stroke) causes muscular**	**1. Monitor vital signs and neurological status every 4 hours to detect**	**1. Patient discusses and understands the interventions necessary to prevent and monitor**	**The client stated he ate a general diet at home and did not understand why he was on a dysphagia III**

	by history of a stroke (Phelps, 2023).	**damage effecting the ability to swallow. The client has right sided weakness and is placed on a dysphagia III diet to reduce the risk of aspiration or choking.**	**aspiration (Phelps, 2023).** **2.Ausculate bowel sounds daily (every shift) to determine changes and appropriate gastric emptying (Phelps, 2023).**	**aspiration (Phelps, 2023).**	**diet during his hospital stay. The client would prefer to eat a general diet at home. The goal for the client is no aspiration on his food because he does "not want to be back in the hospital."**

Other References (APA):

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

Concept Map (23 Points):

Subjective Data

MC rated his pain at a 0/10 this morning. He also stated he was Catholic and enjoyed watching TV in his free time.

Nursing Diagnosis/Outcomes

1. Impaired gas exchange related to infectious organism in right upper lobe as evidenced by diagnosis of pneumonia (Phelps, 2023).
    a. The patient's oxygen saturation level will not drop below 90% before anticipated discharge date.
2. Risk for aspiration related to weak swallowing reflexes as evidenced by history of a stroke (Phelps, 2023).
    a. Patient discusses and understands the interventions necessary to prevent and monitor aspiration (Phelps, 2023).

Objective Data

Chest CT revealed centrilobular emphysema. RBC 3.82, Hgb 10.3, Hct 30.7, Platelets 440 and 387, Neutrophils 72 and 65.9, Lymphocytes 16.1, Chloride 92, Blood Glucose 155, Creatinine 0.54, Albumin 2.8, and Calcium 8.4. At 0700 pulse was 56 and BP was 140/75. Client is lethargic with dry, cracked skin, has a few teeth missing with poor oral care, hyperactive bowel sounds, limited range of motion on right side d/t CVA, on bedrest, Braden score of 13, fall score of 79, and uses a Hoyer lift.

Client Information

MC is an 89-year-old male admitted for pneumonia of right upper lobe due to infectious organism. The client was experiencing generalized weakness for 2 weeks prior to admission with extreme fatigue and dizziness. The client is on bedrest. The client has a past medical history of stroke and diabetes mellitus.

Nursing Interventions

Medical interventions for impaired gas exchange: administration of oxygen PRN.
Nursing interventions for impaired gas exchange: reposition the client every 2 hours to promote excretion of fluid and mucous from lungs (Phelps, 2023), and monitor the patient's oxygen saturation level every 4 hours (Phelps, 2023).
Medical interventions for risk for aspiration: administer proton pump inhibitors for aspiration prevention.
Nursing interventions for risk for aspiration: monitor vital signs and neurological status every 4 hours to detect aspiration (Phelps, 2023), and auscultate bowel sounds daily (or every shift) to determine changes and appropriate gastric emptying (Phelps, 2023).