N311 Care Plan #2

Lakeview College of Nursing

Matthew Catlett

122/150

Demographics (/5 points)

Date of Admission	Patient Initials	Age	Gender
08/01/19	H.G.	68	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Hispanic	Retired	Widowed	Ampicillin
Code Status	**Height**	**Weight**	
No CPR	173 cm (68 in.)	71 kg (156 lbs)	

Medical History (/5 Points)

Past Medical History: Hypertension, diabetes, liver disease, COPD, pneumonia, iron deficiency anemia

Past Surgical History: Tonsillectomy

Family History: Hypertension (maternal and paternal), Diabetes (paternal)

Social History (tobacco/alcohol/drugs): Client reports cessation of smoking two years ago. Currently drinks 4 beers/day. No drug use.

Admission Assessment

Chief Complaint (/2 points): Shortness of breath

History of present Illness (/10 points): 68 y/o male admitted on August 1st reporting shortness of breath, caused by COPD. Found unconscious on the floor by daughter. Shortness of breath effecting thoracic region, bilaterally. Shortness of breath worsened two days prior to admission. Client produces yellow sputum from cough, and reports pain in accessory muscle in relation to difficulty breathing. Client also reports muscle weakness throughout. Shortness of breath worsens when client is lying down on their back, and with any physical, straining activity. Tripod position and breathing treatments help relieve difficulty breathing. Client reports use of inhalers regularly to treat COPD.

Primary Diagnosis

Primary Diagnosis on Admission (/3 points): COPD

Secondary Diagnosis (if applicable): Pneumonia

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

COPD is a combination of emphysema, chronic bronchitis, or hyperactive airway disease, or all three (Capriotti & Frizzell, 2016). Chronic bronchitis is an increase in mucus production and swelling in the airways, which causes the airways to become inflamed and irritated. The increase in mucus production causes an obstruction in the airway, which prohibits the lungs from receiving adequate oxygen. This leads to cyanosis and hypoxia (Capriotti & Frizzell, 2016)

Emphysema causes damage to the air sacs in the lungs, which causes the air sacs to lose their elasticity. This creates an issue called air trapping, and the lungs hold more air than needed. The trapped air makes the lungs work less efficiently. This causes the shortness of breath that the client is experiencing (Wu, 2019). The client's COPD is more than likely caused by his use of smoking tobacco throughout his life. Smoking is the most common cause of COPD, although it can be caused by certain genetic factors, or uncontrollable environmental factors, like pollution (Wu, 2019).

Some cases of COPD may lead to pulmonary hypertension, which causes right ventricular heart failure and hypertrophy of the right ventricle (Capriotti & Frizzell, 2016). Because severe COPD can cause insensitivity to carbon dioxide in the respiratory center in the medulla of the brain, the client's brain no longer tells the body when to breathe properly. This

leads to depression of respiration when a client with COPD receives high amounts of oxygen, and leads to respiratory arrest (Capriotti & Frizzell, 2016).

Symptoms of COPD include coughing, dyspnea, frequent respiratory infections, hypoxia, cyanosis, fatigue, wheezing, excess mucus, and chest tightness. The client, Mr. G, is showing all of these symptoms. The current respiratory infection that the client has is pneumonia and shows signs of impaired gas exchange through hypoxia and fatigue.

Pathophysiology References (/2) (APA):

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

Wu, B. (2019, September 30). Pathophysiology of COPD: What happens, causes, and symptoms. Retrieved April 1, 2020, from https://www.medicalnewstoday.com/articles/315687

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	**4.00-6.10**	**4.8**	**NA**	
Hgb	**14.0-18.0 g/dL**	**9.3 g/dL**	**NA**	**Hgb is low due to iron deficiency anemia.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content Mastery Series)
Hct	**37.0-51.0%**	**29%**	**NA**	**Hematocrit is low due to iron deficiency anemia** ATI. (2019). *RN Adult Medical*

				Surgical Nursing (11.0 ed., Content Mastery Series)
Platelets	**150-400**	**162**	**NA**	
WBC	**5.00-12.00**	**13**	**NA**	**White blood cells are elevated due to infection.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content Mastery Series)
Neutrophils	**2.0-8.0 x 10^9/L**	**4.9 x 10^9/L**	**NA**	
Lymphocytes	**1.0-4.0 x 10^9/L**	**2.2 x 10^9/L**	**NA**	
Monocytes	**0.2-0.8 x 10^9/L**	**0.4 x 10^9/L**	**NA**	
Eosinophils	**< 0.5 x 10^9/ L**	**0.2 x 10^9/L**	**NA**	
Bands	**< 1.0 x 10^9/ L**	**.3 x 10^9/ L**	**NA**	

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	**136-145 mEq/L**	**135 mEq/ L**	**NA**	**Sodium is low due to right ventricular heart failure.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content Mastery Series)
K+	**3.5-5.0 mEq/L**	**4.4 mEq/L**	**NA**	
Cl-	**98-106 mEq/L**	**100 mEq/ L**	**NA**	
CO2	**35-45 mm Hg**	**54 mm Hg**	**NA**	**Elevated CO2 is caused by air trapping in alveolar sacs.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content Mastery Series)
Glucose	**70-100 mg/ dL**	**180 mg/dL**	**NA**	**Increased blood glucose caused by diabetes.** ATI. (2019). *RN Adult Medical*

				Surgical Nursing (11.0 ed., Content Mastery Series)
BUN	**8-20 mg/dL**	**22 mg/dL**	**NA**	**Increased BUN caused by right ventricular heart failure.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content Mastery Series)
Creatinine	**0.7-1.3 mg/ dL**	**1.0 mg/dL**	**NA**	
Albumin	**3.5-5.5 g/dL**	**3.0 g/dL**	**NA**	**Decreased albumin caused by right ventricular heart failure and liver damage.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content Mastery Series)
Calcium	**9.0-10.5 mg/dL**	**9.0 mg/dL**	**NA**	
Mag	**1.5-2.4 mg**	**NA**	**NA**	
Phosphate	**3.0-4.5 mg/ dL**	**5.5 mEq/L**	**NA**	**Increased phosphate levels caused by liver disease.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content Mastery Series)
Bilirubin	**0.3-1.2 mg/ dL**	**NA**	**NA**	
Alk Phos	**36-92 U/L**	**NA**	**NA**	

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Pale yellow-Yellow; Clear**	**Clear; Yellow**	**NA**	
pH	**5-7**	**5.8**	**NA**	
Specific Gravity	**1.005-1.025**	**1.002**	**NA**	**Specific gravity decreased due to diabetes.** ATI. (2019). *RN Adult Medical Surgical Nursing* (11.0 ed., Content

				Mastery Series)
Glucose	**Negative**	**Negative**	**NA**	
Protein	**Negative**	**Negative**	**NA**	
Ketones	**Negative**	**Negative**	**NA**	
WBC	**<5**	**Negative**	**NA**	
RBC	**<3**	**Negative**	**NA**	
Leukoesterase	**Negative**	**Negative**	**NA**	

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***	**N/A***
Blood Culture	**Negative**	*	*	*
Sputum Culture	**Negative**	*	*	*
Stool Culture	**Negative**	*	*	*

Lab Correlations Reference (APA): ATI. (2016). *RN Adult Medical Surgical Nursing* (10.0 ed., Content Mastery Series)

Diagnostic Imaging

All Other Diagnostic Tests (/10 points): Patient received chest x-ray which showed notable hyperinflation of bilateral lung fields and flattened diaphragm. Changes characteristic of

atelectasis in bilateral bases. Abdominal area of density present in the left lung base suspicious of pneumonia.

Current Medications (/10 points, 2 points per completed med)

Brand/Generic	**Ceftriaxone (Rocephin)**	**Prednisone (Deltasone)**	**Salmeterol (Severent Diskus)**	**Albuterol (Proventil)**	**Acetaminophen (Tylenol)**
Dose	**1 g**	**10 mg**	**1 inhalation (50 mcg)**	**1.25mg/3mL 0.9% sodium chloride**	**650 mg**
Frequency	**Every 12 hours**	**Every 12 hours**	**Every 12 hours**	**Every 4 hours**	**Every 4 hours, or PRN**
Route	**IV**	**IV**	**PO-Inhale**	**PO-Nebulizer**	**PO**
Classification	**Antibiotic**	**Immunosuppressant**	**Bronchodilator**	**Bronchodilator**	**Antipyretic and nonopioid analgesic**
Mechanism of Action	**Interferes with bacterial cell wall synthesis by inhibiting cross-linking of peptidoglycan strands.**	**Binds to intracellular glucocorticoid receptors and suppresses inflammatory and immune responses.**	**Attaches to Beta2 receptors on bronchial cell membranes, stimulating the intracellular enzyme adenylate cyclase to convert ATP to cAMP**	**Attaches to Beta2 receptors on bronchial cell membranes, stimulating the intracellular enzyme adenylate cyclase to convert ATP to cAMP**	**Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the PNS.**
Reason Client Taking	**Treats infection**	**To treat adrenal insufficiency and inflammatory disorders**	**Prevent bronchospasms**	**Prevent bronchospasms**	**Pain control**
Contraindications (2)	**Calcium-containing I.V. solutions, hypersensitivity to ceftriaxone**	**Hypersensitivity to prednisone**	**Hypersensitivity to salmeterol, or to milk proteins**	**Hypersensitivity to albuterol**	**Hypersensitivity to acetaminophen; liver disease**

Side Effects/Adverse Reactions (2)	**Edema; Diarrhea**	**Edema; heart failure**	**Cough; elevated heart rate**	**Hypertension; chest pain**	**Hypertension; hepatotoxicity**

5 <u>different</u> medications must be completed

Medications (5 required)

Medications Reference (APA): Jones & Bartlett Learning. (2020). *2020 Nurses drug handbook.* Burlington, MA.

Assessment

Physical Exam (/18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**-Client was alert and oriented.** **-Client showed signs of distress due to SOB.** **-Client was well groomed.**
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score: 22** **Drains present: Y☐ N ☒** **Type:**	**-Clients skin was dry** **-Clients skin temperature was warm to the touch** **-Clients skin turgor was normal** **-No rashes, bruises, or wounds present.**

HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**-Head/Neck: Normal; no deviations.** **-Ears: TM pearly grey; without drainage** **-Eyes: Sclera's are slightly yellow, positive RLR, Rosenbaum 14/14** **-Nose: Moist, pink; no septal deviation** **-Teeth: Dentition good, client does not use 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 and S2 sounds audible, no murmurs or gallops present.** **- Clear heart sounds throughout.** **-Capillary refill > 5 seconds.** **-Pulses present bilaterally on upper and lower extremities, 2+ throughout.** **-Edema present in both legs**
RESPIRATORY: **Accessory muscle use: Y☒ N ☐** **Breath Sounds: Location, character**	**-Respirations are labored** **-Use of accessory muscles** **-Crackles heard in left lower lobe.** **-Wheezes heard on expiration throughout, bilaterally.**
GASTROINTESTINAL: **Diet at home:** **Current Diet: NPO** **Height: 173 cm** **Weight: 71 kg** **Auscultation Bowel sounds:** **Last BM: 08/01/2019** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	**-Bowel sounds audible in all four quadrants.** **-Client reports diabetic diet.** **-No masses palpable.** **-No pain present in abdomen.** **-No distention present.** **-No scars present.** **-No drains present.**
GENITOURINARY: **Color:** **Character:**	**-Urine is yellow; clear.** **-No odor present.**

Quantity of urine: **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size: N/A**	
MUSCULOSKELETAL: **Neurovascular status:** **ROM: Full, without deficit.** **Supportive devices: None** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☒ N☒** **Fall Score: 15** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	**-Client is independent.** **-Full ROM** **-Moves with gait belt** **-Strength in extremities is good**
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**-Client was alert and oriented.** **-Pupils were equal and reactive to light.** **-Speech was normal.** **-No mental impairments present.**
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):**	-Client is Latino -Client identifies as Catholic -Uses alcohol to cope. -Retired, lives alone since wife passed away -Client has 1 child (daughter)

Vital Signs, 1 set (/5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	**100/radial**	**150/94** **Left arm**	**35**	**99.2** **Fahrenheit**	**91% 5L/min/** **NC**

Pain Assessment, 1 set (/5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1300	**3/10**	**Chest**	**Noticeable pain, but not severe**	**"Dull ache"**	**Raised head of bed and adjusted pillows to remove strain from client's chest**

Intake and Output (/2 points)

Intake (in mL)	Output (in mL)
0 mL (NPO)	**150mL urine**

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

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. Disruption of gas exchange	**As evidenced by decreased oxygen**	**1. Apply low amounts of oxygen**	**-Oxygen saturation increased to greater than**

	saturation.	**>3L/min** **2. Elevate head of the bed to semi-Fowler's or high Fowler's**	**90%.** **-Client's breathing was unlabored.** **-Adventitious lung sounds disappeared.**
2. Impaired physical mobility	**As evidenced by the client experiencing muscle fatigue; client having high fall risk.**	**1. Ambulate with gait belt** **2. Provide patient with periods of rest between activities.**	**-Client regained strength in all extremities.** **-Client able to walk with little to no intervention.**

Other References (APA):

Concept Map (/20 Points)

Subjective Data

-Dyspnea
-Labored breathing
-Pain in accessory muscles
-Fatigued

Nursing Diagnosis/Outcomes

- Disruption of gas exchange as evidenced by decreased oxygen saturation.
Goal met: Oxygen given to client at 2L/min, raising O2 saturation to >90%.
Goal met: Clients bed raised to semi-Fowler's, reducing challenge of respirations.

- Impaired physical mobility as evidenced by high fall risk and increased muscle fatigue.
  - Goal met: Client ambulated with gait belt, reducing the need to use full muscle power to stand up and walk.
  - Goal met: Providing periods of rest between activities allowed client to regain full strength effectively.

Objective Data

Patient O2 saturation decreased
Patient has poor capillary refill.
Patient shows signs of nutritional deficiency.
Temp: 99.1
Pulse: 118
Resp: 24
BP: 144/92

Patient Information

Hector Gomez
68 y/o
DOB: 01/01/1952
X-ray shows flattened diaphragm and hyperinflation of bilateral lung fields.

Nursing Interventions

- Apply oxygen.
- Raise head of bed to semi-Fowler's
- Ambulate with gait belt
- Allow periods of rest
- Pain medication given PRN