N311 Care Plan 4

Lakeview College of Nursing

Brayden Percival

Demographics (5 points)

Date of Admission **10/26/2022**	**Client Initials** **P.G.**	**Age** **73**	**Gender** Female
Race/Ethnicity White/Caucasian	**Occupation** Retired	**Marital Status** Divorced	**Allergies** **No Allergies**
Code Status **Full**	**Height** **5'5'**	**Weight** **157 lb**	

Medical History (5 Points)

Past Medical History:

Chronic right-sided low back pain with right sided sciatica (03/05/2020)

COPD

Depression

GERD

Hyperlipidemia

Hypertension

Osteopenia

Sleep Apnea

Thyroid Disease

Past Surgical History:

Gallbladder Surgery

Tubal Ligation

Exploration of Abdomen

Family History:

Mother: Emphysema

Father: Heart Attack

Brother: Diabetes, Leukemia, and Lymphoma

No known problems in daughter or sister.

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

Smoking cigars, 16.00 pack-year history. Never used smokeless tobacco. Reports current alcohol use, one glass of wine daily. Does not use drugs.

Admission Assessment

Chief Complaint (2 points): Shortness of Breath

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

Client states that she has had an onset of “shortness of breath for about a day now”. Location of pain is in her “chest, neck, and back”. Duration has been “ongoing, around the time I got carpet cleaned yesterday”. Characteristics are “stabbing pain”. Aggravating factors include “standing for too long, laying down, going to the bathroom, coughing, just breathing hurts too”. Relieving factors are “sitting up and hunched over”. Treatments “nothing has helped me, they gave me sleep meds and I’ve been up all night with this pain.”

Primary Diagnosis

Primary Diagnosis on Admission (3 points):

COPD with acute exacerbation

Secondary Diagnosis (if applicable):

N/A

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

An acute exacerbation of chronic obstructive pulmonary disease (AECOPD) is a clinical diagnosis made when a patient with COPD experiences a sustained (24–48 hour) increase in cough, sputum production, and/or dyspnea (MacIntyre, 2018). A patient who is experiencing

AECOPD episodes are at risk for bacterial infections due to airways that are prone to infections, impaired immune defenses, and frequent bacterial colonization. Sputum and bronchoscopy data have shown that *Moraxella catarrhalis, Haemophilus influenza*, and *Streptococcus pneumonia* are the most common organisms associated with AECOPD episodes. These bacteria may be chronic airway colonizers that lean to infection after simple respiratory infections or environmental stressors. My client has been smoking for most of her life, and after she had her carpet cleaned, she noted that maybe the dust particles that were lifted up caused her exacerbation. It is also important to note that during influenza season the elderly are at a higher risk for AECOPD due to being high risk for a viral infection. The client did not have her yearly influenza or COVID-19 vaccinations completed at this time. Signs and symptoms of AECOPD include a productive cough, increase in sputum volume noting changes in color (green, pinkish, yellow, and brown), dyspnea, fever, headache, chills, sweating, tachycardia, hypoxia, cyanosis in the lips and fingers, and feverish symptoms. The use of short-acting β-agonists, theophylline, and anticholinergic bronchodilators is based on the concept that the smooth muscle reactivity, airway inflammation, and mucus production characteristics of AECOPD episodes should respond to these drugs (MakIntyre, 2018). Diagnostic tests include lung pulmonary function tests to measure the amount of air you can inhale and exhale, CT scans, Chest X-Rays (emphysema), Arterial blood gas analysis, and lab tests to diagnose COPD exacerbation (Capriotti, 2022). Treatments include quitting smoking, lung therapy, use of short (Albuterol) and long lasting (Aclidinium) bronchodilators (to open up airway), inhaled steroids (Fluticasone), oral steroids, Theophylline, antibiotics (Zithromax), oxygen therapies and pulmonary rehabilitation programs (Mayo Clinic, 2022).

Pathophysiology References (2) (APA):

COPD. (2020, April 15). Retrieved November 2, 2022, from https://www.mayoclinic.org/diseases-conditions/copd/diagnosis-treatment/drc-20353685

Capriotti, T., & Frizzell, J. P. (2022). *Pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

MacIntyre, N., & Huang, Y. (2018, May 1). Acute exacerbations and respiratory failure in chronic obstructive pulmonary disease. Retrieved November 2, 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2645331/#:~:text=An%20acute%20exacerbation%20of%20chronic,production%2C%20and%2For%20dyspnea.

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 (was not acquired)	Reason for Abnormal Value
RBC	**4.40-5.80**	**4.31**	**4.03**	**RBCs were low due to a possible vitamin B6, B12, or folate deficiency (Capriotti, 2022).**
Hgb	**13-16.5**	**13.4**	**13.2**	**Hemoglobin was within normal limits.**
Hct	**38-50**	**39.6**	**38.1**	**Hematocrit was within normal limits.**

Platelets	**140-440**	**410**	**N/A**	**Platelets were with normal limits**
WBC	**4-12**	**22.20**	**28.60**	**WBCs are high likely indicating response to inflammation of patient's lungs/fighting infection. (Capriotti, 2022).**
Neutrophils	**55-70**	**78.0**	**93.5**	**Patient has high neutrophils indicating they are fighting an infection in their body (Cellulitis) (Capriotti, 2022).**
Lymphocytes	**20 - 40**	**4.5**	**3.0**	**Lymphocytes were lower than the normal limits. Low lymphocytes can be a sign of a weak immune system or one's body is fighting infection (Capriotti, 2022).**
Monocytes	**2-8**	**5.4**	**3.3**	**Monocytes were within normal limits**
Eosinophils	**0.00-0.50**	**0.2**	**0.0**	**Eosinophils were within normal limits**
Bands	**Less than 20%**	**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-	**133-144**	**135**	**133**	**Sodium was with normal limits**
K+	**3.5-5.1**	**4.1**	**3.7**	**K+ was within normal limits**
Cl-	**98-107**	**98**	**98**	**Cl- was high due to stress and body fighting an infection which can throw off electrolyte balance (Capriotti, 2022).**
CO2	**21-31**	**22**	**25**	**CO2 was within normal limits.**
Glucose	**70-99**	**105**	**N/A**	**Patients' glucose was high due to a past medical history and current diagnosis of Diabetes Mellitus. (Capriotti, 2022)**
BUN	**7-25**	**20**	**16**	**BUN was within normal limits**

Creatinine	**0.50-1.20**	**0.93**	**0.77**	**Creatinine was within normal limits**
.Albumin	**3.5-5.7**	**3.8**	**3.8**	**Albumin was within normal limits.**
Calcium	**8.8-10.2**	**9.1**	**9.1**	**Calcium was within normal limits**
Mag	**1.3-2.1**	**1.7**	**1.7**	**Magnesium was within normal limits.**
Phosphate	**3.0-4.5**	**N/A**	**N/A**	**N/A**
Bilirubin	**0.2-0.8**	**0.5**	**N/A**	**T-Billi was within normal limits**
Alk Phos	**30-120**	**76**	**76**	**Alk. Phosphate was within normal limits.**

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Yellow/clear**	**N/A**	**N/A**	**N/A**
pH	**5.0-9.0**	**N/A**	**N/A**	**N/A**
Specific Gravity	**1.003-1.030**	**N/A**	**N/A**	**N/A**
Glucose	**Neg**	**N/A**	**N/A**	**N/A**
Protein	**Neg**	**N/A**	**N/A**	**N/A**
Ketones	**Neg**	**N/A**	**N/A**	**N/A**
WBC	**Neg 0-5 hpf**	**N/A**	**N/A**	**N/A**
RBC	**Neg 0-2 hpf**	**N/A**	**N/A**	**N/A**
Leukoesterase	**negative**	**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	**Negative <10,000 Positive >100,000**	**N/A**	**N/A**	**N/A**
Blood Culture	**N/A**	**(Pending)**	**(Pending)**	**N/A**
Sputum Culture	**N/A**	**N/A**	**N/A**	**N/A**
Stool Culture	**N/A**	**N/A**	**N/A**	**N/A**

Lab Correlations Reference (1) (APA):

Capriotti, T., & Frizzell, J. P. (2022). *Pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

CTA of the chest: Infiltrate is present in the lingula with air bronchograms. Minimal atelectasis in lower lobes, no pleural effusions. Liver is fatty infiltrated. Adrenal glands are normal. Impression: No pulmonary emboli, small lingual infiltrate that mat be an indication of pneumonia (Capriotti, 2022).

X-RAY 2 Views: Hyperexpansion of both lungs noted

Impression: Cardia size is within normal limits. Hyperexpansion of both lungs noted. No consolidation or Pneumothorax seen. Hyperexpansion of the lungs is due to a blockage of the airway (Capriotti, 2022).

Diagnostic Imaging Reference (1) (APA):

Capriotti, T., & Frizzell, J. P. (2022). *Pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

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

Medications (5 required)

Brand/Generic	Tylenol (acetaminophen)	VIBRA-TABS (doxycycline hyclate)	Lovenox (enoxaparin)	ZOFRAN-ODT (Ondansetron)	ZOFRAN (Ondansetron)
Dose	650 mg	100 mg	40 mg	4 mg	4 mg
Frequency	Every 4 hours PRN	2 times daily	Daily	6 hrs PRN	6 hrs PRN
Route	PO	PO	Subcutaneous	PO	Intramuscular
Classification	Pharamacologic class: **Nonsalicylate, para-aminophenol derivative** Therapeutic class: **Antipyretic, nonopioid**	Pharamacologic class: **Tetracycline** Therapeutic class: **Antibiotic**	Pharamacologic class: **Low-molecular-weight heparin** Therapeutic class: **Anticoagul**	Pharamacologic class: **Selective serotonin receptor antagonist.** Therapeutic class: **Antiemetic**	Pharamacologic class: **Selective serotonin receptor antagonist.** Therapeutic class: **Antiemetic**

	analgesic		**ant**		
Mechanism of Action	Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in PNS. **(Jones, 2022).**	Exerts a bacteriostatic effect against a wide variety of gram-positive and gram-negative organisms. **(Jones, 2022).**	Potentiates the action of antithrombin III, a coagulation inhibitor. (Inactivates clotting factors) (**Jones, 2022).**	Blocks serotonin receptors centrally in the chemoreceptor trigger zone and peripherally at vagal nerve terminals in the intestine. **(Jones, 2022).**	Blocks serotonin receptors centrally in the chemoreceptor trigger zone and peripherally at vagal nerve terminals in the intestine. (**Jones, 2022)**.
Reason Client Taking	To reduce ongoing pain and inflammation in pleural cavity.	To fight a bacterial infection of the lungs.	To prevent pulmonary artery thrombosis	To prevent nausea and vomiting.	To prevent nausea and vomiting
Contraindications (2)	**Severe hepatic impairment** **Severe active hepatic disease (Jones, 2022).**	**Permanent teeth discoloration.** **Allergy to tetracycline antibiotics (Jones, 2022).**	**Active major bleeding** **Pork products (Jones, 2022).**	**Concomitant use of apomorphine** **Loss of consciousness (Jones, 2022).**	**Concomitant use of apomorphine** **Loss of consciousness (Jones, 2022).**
Side Effects/Adverse Reactions (2)	**Fatigue** **Hypertension**	**Chills** **Fever**	**Paralysis** **Confusion**	**Agitation** **Drowsiness**	**Restlessness** **Syncope**

Medications Reference (1) (APA):

Jones & Bartlett Learning, LLC. (2022). *2022 NDH: 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 (A&Ox4). Patient is in acute distress. Patient appearance is appropriate to situation.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Patient's temperature was 97.5 (Temporal) Patient skin is warm and dry upon palpation. Patient skin color is pink and white. Patient's turgor was quick to return less than 2 seconds. Patient has no rashes or bruises. The Braden score was a 17. Patient has no wounds No drains were present.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Patient's head and neck were symmetrical. No signs of tracheal deviation Patient eyes were clear bilaterally. Patient ears were pink and warm to the touch. Patient's nose was symmetrical. Patient's teeth were well-cared for.
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:**	Heart sounds could be auscultated throughout S1, S2, S3, and S4. No murmur detected. Capillary refill was less than 3 seconds. Peripheral pulses were adequate for patient. No neck vein distention. No Edema
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Respiratory rate was higher than normal Labored breathing and accessory muscle use. Breath sounds had course crackles, bilaterally with wheezes heard throughout.
GASTROINTESTINAL: **Diet at home:** **Current Diet**	Patient's diet is good. Height: 5'5' Weight: 157 lbs

Height: **Weight:** **Auscultation Bowel sounds:** **Last BM:** **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 are normoactive in all four quadrants. Last BM: 1 day ago Abdomen is soft, nontender, no organomegaly or masses notes upon palpation of all four quadrants. No CVA tenderness noted bilaterally. No feeding tubes in place and no ostomy bag in place.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	Color is with normal limits. Quantity of urine is within normal limits. No pain with urination. Patient does not have a catheter.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **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 ☐**	Patient has full range of motion. Patient gets winded after moving around due to COPD and SOB. No supportive devices. Strength is weak bilaterally. Fall score is a 15 on Morse Fall Scale.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☒** **Orientation:**	Patient's speech is clear. Patient is alert and oriented to person, place, and situation. Strength is equal.

Mental Status: **Speech:** **Sensory:** **LOC: Good**	
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 is in a bad mood due to her trouble breathing and illness. Behavior is abnormal to patient. Patient is cooperative. Misses home. Wants to quit smoking. Talks to daughter regularly.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
7:00am	**73**	**136/62**	**22**	**97.5**	**96% Nasal Canula 1L**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
7:25am	**1-10 (9)**	**Chest, neck, and back.**	**Mild**	**Stabbing**	**Was given sleep meds but did not work and has been up all night in pain.**

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Juice: 120 mL	**200 mL**

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. Risk for complete or partial lung collapse of lung as evidence by minimal atelectasis found in CT scan. (Phelps, 2020).	**Patient has shortness of breath and fatigue after coughing or moving around. (Capriotti, 2022).**	**1. Monitor with telemetry for abnormalities.** **2. Assess and monitor respirations and breath sounds every two hours.**	**1.Maintain airway patency with breath sounds clear.**	**Client wants to get better and quit smoking. Client is open to bettering her health.**
2. Risk for ineffective airway clearance as evidence	**Patient is struggling to breath with productive coughs.**	**1. Encourage pursed lip breathing and abdominal exercises.** **2. Administer bronchodilators as**	**Demonstrate behaviors to improve airway clearance cough**	**Client has acknowledged the severity of her illness and will comply and try any**

by thick secretions and coughing up sputum. (Phelps, 2022).		**prescribed (Phelps, 2020).**	**effectively.**	**exercises and interventions needed.**

Other References (APA):

Phelps, L. L. (2020). In *Sparks & Taylor's nursing diagnosis reference manual* (11th ed.). essay, Wolters Kluwer.

Capriotti, T., & Frizzell, J. P. (2022). *Pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

Concept Map (20 Points)

Subjective Data

Shortness of breath
Pain level of "9" on numeric pain scale
ongoing, "pain is sharp and stabbing"
" I have to sit up to be able to breath".

Nursing Diagnosis/Outcomes

Risk for complete or partial lung collapse of lung as evidence by minimal atelectasis found in CT scan. (Phelps, 2020).
Maintain airway patency with breath sounds clear.

Risk for ineffective airway clearance as evidence by thick secretions and coughing up sputum. (Phelps, 2022).
Demonstrate behaviors to improve airway clearance cough effectively.

Objective Data

5'5'
157 pounds
Pulse: 73
BP: 136/62
Respirations: 22
Temperature (Temporal): 97.5
Oxygen: 96% Nasal Canula

Client Information

73-year old female
White/Caucasian
Full Code
No allergies
Divorced
COPD
Sleep Apnea
Depression
Thyroid Disease

Nursing Interventions

1. **Monitor with telemetry for abnormalities.**
2. **Assess and monitor respirations and breath sounds every two hours.**
3. **Encourage pursed lip breathing and abdominal exercises.**
4. **Administer bronchodilators as prescribed (Phelps, 2020).**