N431 Care Plan 1

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
9/20/19	FEH	81y.o	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Retired	Single	NKA
Code Status	**Height**	**Weight**	
Full Code	152cm	75.4 kg	

Medical History (5 Points)

Past Medical History: Chronic anxiety, COPD, fall risk, former smoker, hypertension, cardiovascular disease, mixed hyperlipidemia, obesity, stricture of sigmoid colon, umbilical hernia, wheezing

Past Surgical History: Colonoscopy screening (9/20/18), Cataract (1/1/11)

Family History:

Social History (tobacco/alcohol/drugs): Former smoker, Patient does not report drug or alcohol use.

Assistive Devices: Walker

Living Situation: At home w/ grand daughters

Education Level: High School

Admission Assessment

Chief Complaint (2 points): Shortness of breath

History of present Illness (10 points): 81 year old female presented the emergency department complaining of shortness of breath. Patient has a history of COPD and chronic anxiety . Patient began having SOB and wheezing the day before she was admitted. Patient took at home prednisone and it did not relieve the breathing issue resulting in her visit to the hospital. Patient is a former smoker.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): COPD Exacerbation

Secondary Diagnosis (if applicable):.

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

The umbrella term for chronic obstructive pulmonary disease (COPD) covers a variety of disease processes that affect the respiratory tract. COPD is a significant cause of mortality worldwide and is predicted to be the fourth leading cause of death and the seventh leading contributor to the global burden of disease by 2030 (Bodas & Vij, 2017). COPD is defined as such; two pathological features must be occurring within the body. Parenchymal lung destruction, more commonly known as emphysema, and the narrowing of airways must coincide (Bodas & Vij, 2017). This will destroy alveoli and continue to decline slowly over many years. As the alveoli continue to die, the alveolar surface area in direct contact with the pulmonary capillaries continually decreases resulting in dead space within the lung that does not function properly to diffuse oxygen (Hinkle & Cheever, 2017). This results in hypoxemia. “In the later stages of this disease, the carbon dioxide elimination is impaired, resulting in increased carbon dioxide tension in arterial blood (hypercapnia) leading to respiratory acidosis” (Hinkle & Cheever, 2018, p.636). Due to the lungs functioning abnormally, the heart is required to work harder to compensate which results in high blood pressure and abnormal function of the cardiovascular system. Overall, a few things can result from these abnormalities around the body can be dependent edema, distended neck veins, or pain in the region of the liver (Hinkle & Cheever, 2017).

Signs and symptoms of COPD can vary from patient-to-patient; however, common manifestations include a chronic cough, sputum production, and dyspnea that all worsen over time (Hinkle & Cheever, 2017). The combination of these three common manifestations may all occur, or a cough can be intermittent with a nonproductive cough but still be classified under COPD. Dyspnea slowly begins to creep into the patient's activities of daily living. First, it starts with exercise and physical activity, but then it progresses into, usually, less exhausting activities like breathing at rest or during meals, which can result in weight loss. As a result, over time, the accessory muscles are utilized in assisting the patient in breathing which exhausts the patient even further. Late stage manifestations that occur are barrel-chest, as a result of chronic hyperinflation, musculoskeletal wasting, metabolic syndrome, and depression (Hinkle & Cheever, 2017). Risk factors for COPD include, but are not limited to, exposure to tobacco smoke, firsthand or secondhand smoking, increased age, occupational exposure to substances like dust or chemicals, indoor and outdoor air pollution, and genetic abnormalities, which include alpha 1-antitrypsin (Hinkle & Cheever, 2017).

Chronic obstructive pulmonary disease can be confirmed through a variety of assessments and tests. To determine the severity and monitor disease progression the use of a spirometer is utilized. "Spirometric results are expressed as an absolute volume and as a percentage of the predicted value using appropriate normal values for gender, age, and height" (Hinkle & Cheever, 2017, p.638). What is expected and monitored from the patient with COPD is that the patient is either unable to exhale forcefully or has difficulty exhaling. Arterial blood gasses are especially important to have obtained to monitor baseline levels to current levels. If the results are significantly abnormal, then the patient

may be approaching advanced COPD (Hinkle & Cheever, 2017). Vital signs that may also be abnormal as a result of advanced COPD would decrease pulse ox. values, increase blood pressure, increased temperature, increased heart rate, and increased respiratory rate. The variations would be a result of the body actively trying to compensate for the chronic hypoxemia and metabolic abnormalities resulting (Hinkle & Cheever, 2017). Particular tests and images that are conducted to confirm the diagnosis assess pathological processes, and physiological consequences are vast. Some of these tests include “computed tomography (CT), magnetic resonance imaging (MRI), and the nuclear medicine techniques positron emission tomography (PET) and single-photon emission computed tomography (SPECT)” (Milne & King, 2014). My patient did not utilize these scans during her stay because she was previously diagnosed with COPD.

Treatment of a COPD exacerbation requires identifying what the underlying cause of the exacerbation is and administering specific drugs to treat that specific problem. Pharmacological therapy for this disease includes bronchodilators, corticosteroids, aerosol treatments, and narcotics. Bronchodilators are key for symptom management by relieving bronchospasms, widening the airway, and promoting lung emptying. However, depending on the manifestations of the exacerbation, antibiotics, oxygen therapy, and respiratory interventions may be required (Hinkle & Cheever, 2017). My patient utilized aerosol breathing treatments, albuterol, during her inpatient stay to help her breathe easier. Also, she had azithromycin administered. My patient was also receiving supplemental oxygen therapy due to her inability to continue to compensate for her state of respiratory acidosis.

Pathophysiology References (2) (APA):

Bodas, M., & Vij, N. (2017). Augmenting autophagy for prognosis-based intervention of COPD-pathophysiology. Respiratory Research, 18(1), 83.

Hinkle, J.L., & Cheever, K. H. (2018). Brunner & Suddarth's Textbook of Medical-Surgical Nursing (14 th ed.). Philadelphia, Pa: Wolters Kluwer Health Lippincott Williams & Wilkins.

Milne, S., & King, G. G. (2014). Advanced imaging in COPD: insights into pulmonary pathophysiology. Journal Of Thoracic Disease, 6(11), 1570–1585.

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	**4.28-5.56**	**3.5**	**N/A**	
Hgb	**13-17**	**9.9**	**N/A**	
Hct	**33.2-45.3**	**31.8**	**N/A**	
Platelets	**149-393**	**343**	**N/A**	**N/A**
WBC	**4.0-11.7**	**23.4**	**N/A**	
Neutrophils	**45.3-79.0**	**92**	**N/A**	
Lymphocytes	**11.8-45.9**	**3**	**N/A**	
Monocytes	**4.4-12.0**	**4**	**N/A**	
Eosinophils	**0-6.3**	**1**	**N/A**	**N/A**
Bands			**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-	136-145	140	N/A	N/A
K+	3.5-5.1	4.8	N/A	N/A
Cl-	98-107	98	N/A	N/A
CO2	22-29	38	N/A	
Glucose	70-99	131	N/A	
BUN	6-20	24	N/A	N/A
Creatinine	0.7-1.2	0.56	N/A	N/A
Albumin	3.5-5.2		N/A	
Calcium	8.6-10.4		N/A	
Mag	1.6-2.4		N/A	
Phosphate	3.0-4.5		N/A	
Bilirubin	0.0-1.2		N/A	
Alk Phos	40-130		N/A	
AST	0-40		N/A	
ALT	0-41		N/A	
Amylase	56-90		N/A	
Lipase	0-110		N/A	
Lactic Acid	6-16		N/A	

Troponin	**0-0.3**		**N/A**	
CK-MB	**30-170**		**N/A**	
Total CK	**30-170**		**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	**0.9-1.2**		**N/A**	
PT	**11-14**		**N/A**	
PTT	**16-40**		**N/A**	
D-Dimer	**0.24-2.33 mcg/mL**		**N/A**	
BNP	**< 100**		**N/A**	
HDL	**40-60**		**N/A**	
LDL	**<100**		**N/A**	
Cholesterol	**< 200**		**N/A**	
Triglycerides	**< 150**		**N/A**	
Hgb A1c	**4% - 5.6%**		**N/A**	
TSH	**0.4 to 4.0 milli-international units per liter**		**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	**Yellow, clear**		**N/A**	

pH	**5.0-8.0**		**N/A**	
Specific Gravity	**1.005-1.035**		**N/A**	
Glucose	**Normal**		**N/A**	
Protein	**Negative-normal**		**N/A**	
Ketones	**Negative**		**N/A**	
WBC	**< 5**		**N/A**	
RBC	**0-3**		**N/A**	
Leukoesterase	**Negative**		**N/A**	

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	**7.35-7.45**		**N/A**	
PaO2	**80-100**		**N/A**	
PaCO2	**35-45**		**N/A**	
HCO3	**21-28**		**N/A**	
SaO2	**95-100**		**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**		**N/A**	
Blood Culture	**Negative**		**N/A**	
Sputum Culture	**Negative**		**N/A**	
Stool Culture	**Negative**		**N/A**	

Lab Correlations Reference (APA):

Van Leeuwen, A. M., & Bladh, M. L. (2017). Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests with Nursing Implications (7 ed.). Philadelphia, PA: F.A. Davis Company.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Electrocardiography (EKG)

Diagnostic Test Correlation (5 points): An EKG is performed to evaluate the electrical impulses generated by the heart during the cardiac cycle to assist with diagnosis of cardiac arrhythmias, blocks, damage, infection, or enlargement (Leeuwen & Bladh, 2017). Sarah Bush has a protocol that everyone who presents to the ED receives an EKG. EKG per protocol showed sinus tachycardia with no ST segment indicative of ischemia.

Diagnostic Test Reference (APA):

Van Leeuwen, A. M., & Bladh, M. L. (2017). Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests with Nursing Implications (7 ed.). Philadelphia, PA: F.A. Davis Company.

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

Home Medications (5 required)

Brand/Generic	**Acetaminophen (Tylenol)** **(Jones & Bartlett,**	**Cyclobenzaprine (Flexeril)** **(Jones &**	**Diphenhydramine (Benadryl)** **(Jones &**	**Hydrocodone-Acetaminophen ()** **(Jones &**	**Ibuprofen (Motrin)** **(Jones &**

	2017, p.).	**Bartlett, 2017, p.).**	**Bartlett, 2017, p.).**	**Bartlett, 2017, p.).**	**Bartlett, 2017, p.)**
Dose	**650 mg (2, 325 mg tablets).**	**5mg, 0.5 tabs.**	**25 mg, 1 capsule.**	**7.5mg-325 mg, 0.5 tabs.**	**600 mg, 1 tab.**
Frequency	**q6 hours PRN**	**HS, PRN.**	**q6 hours, PRN**	**BID, PRN**	**q6h, PRN**
Route	**PO**	**PO**	**PO**	**PO**	**PO**
Classification	**Antipyretic**				
Mechanism of Action	**Inhibits the synthesis of prostaglandin E2 in the hypothalamus**				
Reason Client Taking	**Fever**				
Contraindications (2)	**-Hypersensitivity -Severe hepatic impairment**				
Side Effects/Adverse Reactions (2)	**-Hypoglycemic coma -Severe active liver disease**				
Nursing Considerations (2)	**-use cautiously with alcoholism -order liver function tests**				
Key Nursing Assessment(s)/Lab(s) Prior to Administration					
Client Teaching needs (2)					

Hospital Medications (5 required)

Brand/Generic	**Azithromycin (Zithromax) (Jones & Bartlett, 2017, p.).**	**Budesonide-Formoterol (Symbicort) (Jones & Bartlett, 2017, p.).**	**Citalopram (Celexa) (Jones & Bartlett, 2017, p.).**	**Docusate (Colace) (Jones & Bartlett, 2017, p.).**	**Enoxaparin (Lovenox) (Jones & Bartlett, 2017, p.).**
Dose	**500 mg over 60 min.**	**2 puffs.**	**40 mg, 2 tabs.**	**100 mg, 1 cap.**	**40 mg, 04 ml**
Frequency	**q24h**	**BID**	**HS, daily.**	**BID**	**daily**
Route	**IVPB**	**inhalant**	**PO**	**PO**	**SubQ injection**
Classification	**Azalide**				
Mechanism of Action	**Binds to ribosomal subunit of susceptible bacteria, blocking peptide translocation and inhibiting RNA-dependent protein synthesis.**				
Reason Client Taking					
Contraindications (2)					
Side Effects/Adverse Reactions (2)					
Nursing Considerations (2)					
Key Nursing Assessment(s)/Lab(s) Prior to					

Administration					
Client Teaching needs (2)	**1. Take oral pills 1 hour before or 2-3 hours after food. 2. Abdominal pain and loose, watery stools may occur.**	**1.**	**1.**	**1.**	**1.**

Medications Reference (APA):

2018 Nurses drug handbook (17th ed.). (2018). Burlington, MA: Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:**	

Teeth:	
CARDIOVASCULAR (2 points): **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 were clear and equal. No murmur or bruit auscultated. Cardiac rhythm is normal with no unusual findings during auscultation despite history of atrial fibrillation. Peripheral pulses were palpable. Capillary refill was < 3 seconds on patient's left index finger. There was no presence of neck vein distention. There was no present edema.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **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:**	.
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:**	

Catheter: Y ☐ N ☐ **Type:** **Size:**	
MUSCULOSKELETAL (2 points): **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☐**	Fall Risk: 75 Patient is a fall risk based on fall risk rating. Patient utilizes an assistive deice, a cane, walker, and crutches, at home and in the inpatient setting. Patient is able to ambulate with assistance x1. Patient exhibits ROM well and equal bilateral strength in extremities.
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.Patient is awake and A&O x3 with ability to speak and portray needs as desired. Primary language is English. Patient can MAWE for age, weight, and present health. Strength is bilaterally equal for extremities. Response to PERLA is standard. No signs of any neurological deficits.
PSYCHOSOCIAL/CULTURAL (2 points): **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)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0429	**116**	**145/80**	**32**	**37.9℃**	**93%, 2L NC**
0830	**90**	**134/66**	**18**	**36.7℃**	**97%, 2L NC**

Vital Sign Trends: Respirations trended downwards after RT arrived and administered the patient's breathing treatment. Overall distress decreased as well.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0830	**numeric**	**N/A**	**0**	**N/A**	**N/A**
1020	**numeric**	**N/A**	**0**	**N/A**	**N/A**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	22g right forearm, 9/20/19. No evidence of erythema, drainage, or swelling. IV patency was confirmed by slaine flushes. Dressing remained clean, dry, and intact. Patient denies pain at site.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
2427mL	**2000mL**

Nursing Care

Summary of Care (2 points)

Patient received care from 9/20 to 9/23. Patient was overall very cooperative and did not require extensive attention. PAtient was calm and understood what was going on round her. Vitals were within normal limits and returned to normal when interventions were implemented.

Discharge Planning (2 points)

Patient planned to be discharged this afternoon after lunch. She will be returning home to live with her grand daughters. Patient does not require any additional assistive devices. Follow up plans not yet completed. PAtient and family education may be required for managing conditions on the daily.

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	**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.
Impaired gas exchange related to previous diagnosis of COPD and airway inflammation as evidenced by wheezing during assessment **(Swearingen, 2016, p.112).**	**Without a patent airway and proper oxygenation, the patient would not continue to be able to profuse and arrest.**	**1. Position the patient in high-Fowler's to facilitate breathing.** **2. Assess for signs and symptoms of hypoxia every time there is interaction with the patient and q4h. Report any significant findings to the provider.**	**The patient responded well to being placed upright in high-Fowler's position. Further interventions were not required. O2 saturation remained within acceptable limits for the remainder of his stay. Goal was met, and no modifications were required.**
Activity intolerance related to previous diagnosis of COPD due to ineffective	**The patient is unable to ambulate independently which is normal for age**	**1. Allow 90 minutes between activities for undisturbed rest.** **2. Monitor the patient's respiratory**	**The patient was understanding of what was happening around her and appreciated the rest allowed between activity.**

breathing as evidenced by patient's difficulty to ambulate independently. **(Swearingen, 2016, p.113).**		**response to activity, including assessment of oxygen saturations.**	
Ineffective airway clearance related to presence of tracheobronchial secretions as evidenced by the average disease process.	**The airway is an important assessment. Without a patent airway and proper oxygenation, the patient would not continue to be able to profuse and arrest.**	**1. Inspect sputum for quantity, odor, color, and consistency; document findings.** **2. Educate the patient on how to deep breathe with coughing exercises and inform the patient to perform them Q2H.**	**The patient responded well to being placed upright in high-Fowler's position. Further interventions were not required. He was able to effectively clear his air way with deep breathing and coughing techniques. Goal was met, and no modifications were required.**
Fear related to life-threatening condition as evidenced by verbalization whiile interacting **(Swearingen, 2016, p.84).**	**The patient began her inpatient stay with a pleasant attitude. As her condition was further evaluated and he was informed she began to develop a attitude.**	**1. Acknowledge the family's fears and assess coping behaviors.** **2. Provide information at frequent intervals about the patient's status, treatments, and equipment use.**	**The patient and family members began t verbalize concerns and fears out loud to others. No further interventions required if this behavior continues.**

Other References (APA):

Concept Map (20 Point):

Nursing Diagnosis/Outcomes

Nursing Interventions

Objective Data

Patient Information