N431 Care Plan #3

Lakeview College of Nursing

Kelly Lonergan

Demographics (3 points)

Date of Admission 3/23/30	Patient Initials K. K.	Age 72yrs	Gender Male
Race/Ethnicity African American	Occupation Retired welder	Marital Status Widowed	Allergies NKDA
Code Status DNR/DNI	Height 69in	Weight 146lbs	

Medical History (5 Points)

Past Medical History: HTN, Afib, HLD, COPD

Past Surgical History: Appendectomy- 1995

Family History: Mother- diabetes
Brother- diabetes
Father- MI

Social History (tobacco/alcohol/drugs): Never smoked, casual drinking (1-2 drinks/month), never used drugs

Assistive Devices: None.

Living Situation: Lives alone

Education Level: High school diploma

Admission Assessment

Chief Complaint (2 points): shortness of breath, cough

History of present Illness (10 points): Pt presented with complaints of shortness of breath and a persistent cough. Over the last several days his activity levels have declined due to worsening SOB. Exertion is found to be an aggravating factor alleviated with rest periods. Pt states he also uses his PRN O2 at 2L/min to help reduce SOB.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): COPD exacerbation

Secondary Diagnosis (if applicable): N/A

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

COPD is a disease that involves both emphysema and chronic bronchitis. This disease is irreversible and typically affects middle-aged to older adults. COPD damages the airways and air sacs in the lungs, ultimately reducing the functional ability of the lungs. The air sacs in healthy lungs are elastic and are able to expand as a person breathes in and deflate as the person breathes out. COPD causes the air sacs to lose their elasticity, damage walls, inflame the wall, or produce more mucous causing them to close (ATI, 2016).

Risk factors for COPD include advanced age, smoking, alpha-antitrypsin deficiency, and exposure to environmental factors (ATI, 2016). This patient is a retired welder, this type of work may have predisposed him to toxic chemicals that increased his risk for developing COPD over the years. Expected COPD findings that this patient possesses include dyspnea on exertion, productive cough, decreased oxygen saturation (on 2L O2), and diminished breath sounds (ATI, 2016).

Expected lab tests for COPD include an elevated Hct, ABGs, and electrolytes. Elevated BUN and Creatinine, which this patient has, indicated protein catabolism in COPD individuals. Diagnostic procedures include pulmonary function tests to compare forced expiratory volume to forced vital capacity, chest X-ray to reveal hyperinflation of alveoli, pulse oximetry, and alpha-antitrypsin levels (Sorenson, 2019). This patient's chest X-ray revealed chronic bronchitis which is a disease among COPD.

Pathophysiology References (2) (APA):

ATI (2016). RN Adult Medical Surgical Nursing (10th ed). Assessment Technologies Institute, LLC.

Sorenson, M., Quinn, L, & Klein, D. (2019). *Pathophysiology: Concepts of human disease* (1st ed.). Hoboken, NJ: Pearson Education, Inc.

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	4-5.5 mil	**N/A**	**N/A**	
Hgb	12-16 g/dL	**13.6**	**N/A**	
Hct	37-51%	**N/A**	**N/A**	
Platelets	140,000—400,000	**N/A**	**N/A**	
WBC	4,000-11,000	**9,400**	**N/A**	
Neutrophils	1.5-8.0	**N/A**	**N/A**	
Lymphocytes	1-4.9	**N/A**	**N/A**	
Monocytes	0-1.1	**N/A**	**N/A**	
Eosinophils	0-.5	**N/A**	**N/A**	
Bands	0-.2	**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 mmol/L	**124**	**N/A**	Dehydration and use of diuretics can rid our body of too much Na and K.
K+	3.5-5.0 mmol/L	**2.8**	**N/A**	Dehydration and use of diuretics can rid our body of too much Na and K.
Cl-	98-108 mmol/L	**N/A**	**N/A**	
CO2	21-32 mEq/L	**N/A**	**N/A**	
Glucose	60-99 mg/dL	**94**	**N/A**	

BUN	7-18 mg/dL	**24**	**N/A**	Protein catabolism in COPD patients, is a normal protective response from the body to reserve energy. Elevated BUN and Creatinine is a sign of COPD complications.
Creatinine	0.6-1.3 mg/ dL	**2.8**	**N/A**	Protein catabolism in COPD patients, is a normal protective response from the body to reserve energy. Elevated BUN and Creatinine is a sign of COPD complications.
Albumin	3.4-5.0 gm/ dL	**N/A**	**N/A**	
Calcium	8.5-10.1mg/ dL	**N/A**	**N/A**	
Mag	1.8-2.4 mg/ dL	**N/A**	**N/A**	
Phosphate	2.5-4.5 mg/ dL	**N/A**	**N/A**	
Bilirubin	0.2-1.0 mg/ dL	**N/A**	**N/A**	
Alk Phos	45-117 U/L	**N/A**	**N/A**	
AST	15-37 U/L	**N/A**	**N/A**	
ALT	12-78 U/L	**N/A**	**N/A**	
Amylase	0-137 U/L	**N/A**	**N/A**	
Lipase	12-70 U/L	**N/A**	**N/A**	
Lactic Acid	0.5-1 mmol/ L	**N/A**	**N/A**	
Troponin	0.0-0.1	**N/A**	**N/A**	
CK-MB	5-25 IU/L	**N/A**	**N/A**	
Total CK	22-198 U/L	**N/A**	**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	0.9-1.1 2-3 (therapeutic)	**N/A**	**N/A**	
PT	12.1-14.9 sec	**N/A**	**N/A**	
PTT	22.4-35.9 sec	**N/A**	**N/A**	
D-Dimer	<0.5	**N/A**	**N/A**	
BNP	<125 pg/mL	**N/A**	**N/A**	
HDL	>60 mg/dL	**N/A**	**N/A**	
LDL	<130 mg/dL	**N/A**	**N/A**	
Cholesterol	<200 mg/dL	**N/A**	**N/A**	
Triglycerides	<150mg/dL	**N/A**	**N/A**	
Hgb A1c	<7%	**N/A**	**N/A**	
TSH	0.4-4.0 ml/L	**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	Colorless-yellow	**N/A**	**N/A**	
pH	5.0-8.5	**N/A**	**N/A**	
Specific Gravity	1.000-1.030	**N/A**	**N/A**	
Glucose	Negative	**N/A**	**N/A**	
Protein	Negative	**N/A**	**N/A**	
Ketones	Negative	**N/A**	**N/A**	

WBC	None or Rare	**N/A**	**N/A**	
RBC	None or Rare	**N/A**	**N/A**	
Leukoesterase	Negative	**N/A**	**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	**7.25**	**N/A**	Low pH and elevated PaCO2 is indicative of respiratory acidosis. This is common result of COPD when adequate blood gas exchange is not happening.
PaO2	80-100 mmHg	**91**	**N/A**	
PaCO2	35-45 mmHg	**84**	**N/A**	Low pH and elevated PaCO2 is indicative of respiratory acidosis. This is common result of COPD when adequate blood gas exchange is not happening.
HCO3	22-28 mEq/ L	**24**	**N/A**	
SaO2	92-100%	**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	<100,000/ml	**N/A**	**N/A**	
Blood Culture	Negative	**N/A**	**N/A**	
Sputum Culture	Negative	**N/A**	**N/A**	
Stool Culture	Negative	**N/A**	**N/A**	

Lab Correlations Reference (APA):

Sorenson, M., Quinn, L, & Klein, D. (2019). *Pathophysiology: Concepts of human disease* (1st ed.). Hoboken, NJ: Pearson Education, Inc.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Chest X-ray findings consistent with chronic bronchitis. EKG shows Afib with rate of 88bpm.

Diagnostic Test Correlation (5 points): Afib on EKG is as expected with know Hx. 88bpm within normal range. Chronic bronchitis from X-ray as expected with known hx of COPD.

Diagnostic Test Reference (APA):

Sorenson, M., Quinn, L, & Klein, D. (2019). *Pathophysiology: Concepts of human disease* (1st ed.). Hoboken, NJ: Pearson Education, Inc.

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

Home Medications (5 required)

Brand/Generic	Lisinopril/ Zestril	Amiodarone / Pacerone	Aspirin	Atorvastatin/ Lipitor	Metoprolol/ Lopressor
Dose	40 mg	200 mg	81 mg	40 mg	50 mg
Frequency	Daily	Daily	Daily	Daily at HS	BID
Route	PO	PO	PO	PO	PO
Classification	**ACE inhibitor**	Antiarrhythmic	NSAID	Antilipemic	Antihypertensive
Mechanism of	Decreases	Blocks	Inhibit	Inhibits early	Block beta

Action	production of angiotensin II to lower blood pressure	potassium chloride to prolong action potential duration	prostaglandin that sensitizes pain receptors. Antiplatelet aggregation	phases of cholesterol biosynthesis	receptors that increase BP and HR
Reason Client Taking	HTN	Afib	Afib	HLD	HTN
Contraindications (2)	Impaired renal function Hyperkalemia	Cardiogenic shock Bradycardia	GI lesions Severe hepatic impairment	Hepatic impairment Rhabdomyolysis	HR less than 60 Hypotension
Side Effects/Adverse Reactions (2)	Increased K, BUN, Creatinine Dizziness-hypotension	Bradycardia ARDS	Increased bleeding hyperkalemia	Rhabdomyolysis	Bradycardia Hypotension
Nursing Considerations (2)	Do not give if BP is too low Monitor BP frequently	Give loading doses with continuous EKG monitoring Monitor for pulmonary toxicity	Monitor for bleeding Clear area of any potential items that could lead to bleeding	Low cholesterol diet Monitor for signs of myopathy	Have pt stand up slowly after administering May mask tachycardia caused by hyperthyroidism
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Potassium BP	HR Baseline PFT, liver, and thyroid function tests	PT/INR	Lipid profile Current diet at home	BP and HR
Client Teaching needs (2)	Do not stand up too quickly after taking medication Do not use salt	Increases sensitivity to sun- wear sunscree Monitor BP/ HR frequently	Don’t go barefoot Advise low sodium diet clients	Weight management Increased activity	Inform dentist about medication before any procedure How to check

	substitutes that contain potassium		that ASA contains 550 mg sodium		BP at home

Hospital Medications (5 required)

Brand/Generic	Acetaminophen Tylenol	Potassium chloride/ Klor-Con	Azithromycin / Zithromax	Levofloxacin/ Levaquin	Albuterol/ DuoNeb
Dose	650 mg	40 mEq	500 mg	750 mg	1 nubule
Frequency	Q6hr PRN	Once	Daily	Daily	Q4hr PRN
Route	PO	IV	PO	IV	Inhaled
Classification	Analgesic	Potassium supplement	Antibiotic	Antibiotic	Bronchodilator
Mechanism of Action	Inhibits prostaglandin.	Maintains potassium levels	Block protein synthesis. Bacteriostatic OR bactericidal	Inhibits DNA replication	Relaxes bronchial and other smooth muscles
Reason Client Taking	Pain/fever	Hypokalemia	Infection prevention	Infection prevention	SOB/ wheezing
Contraindications (2)	Liver failure Long term alcohol use	Hyperkalemia Renal impairment	Hypersensitivity to macrolides Steven Johnson syndrome	Tendinitis Myasthenia Gravis	HTN GI narrowing
Side Effects/Adverse Reactions (2)	Steven Johnson Syndrome Anemia	Arrhythmias Hyperkalemia	Candidiasis Angioedema	Tendon rupture Seizures	HTN Bronchospasm
Nursing Considerations (2)	Be aware of other medications	Monitor EKG Monitor	Monitor for super infection	Monitor closely for severe	Monitor for effectiveness

	containing acetaminophen when calculating dosages Make sure not to overdose IV settings	electrolytes	Monitor skin for jaundice or rashes	adverse reactions Monitor for peripheral neuropathy	O2 sat RR
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Liver panel CBC	Potassium EKG	Liver panel Assess allergies	CBC Glucose	Potassium BP
Client Teaching needs (2)	Should only be used short term High dosages can cause liver damage	How to prepare the powder to take the drug Do not use salt substitutes	Avoid sun exposure Take exactly as prescribed	Immediately warn provider of joint pains or muscle weakness Take with plenty of fluids	Stop drug immediately if bronchospasm occurs How to properly inhale

Medications Reference (APA):

Retrieved from online.epocrates.com

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**Alert and oriented x4.** **No signs of distress.** **Well groomed and dressed.**
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:**	 **Skin is warm, pink, and dry** **No rashes, bruises or wounds** **Turgor: loose and within expected limits** **Braden Score: 23**

Bruises: **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	**No drains present**
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**PERRLA** **Normocephalic** **Moist mucosa** **Clear conjunctiva** **Clean, white teeth** **No drainage present**
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:**	**Clear S1, S2 in abnormal pattern consistent with Afib** Afib on EKG 2+ pulses throughout Rapid Cap refill No neck vein distension No edema No murmur, rubs or gallops No chest pains.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Diminished breath sounds throughout all lobes anteriorly and posteriorly**
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:**	**No known at home diet** **69in** **146lbs** **Clear and active bowel sounds** **No guarding or rebounding** **BM x2** **No distension, incisions, scars, drains, or wounds**

GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	**No pain or trouble urinating** **Clear-yellow urine** **Intake: 660 mL** **Output: 1750mL**
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** ☐	**Clean nails. Mild clubbing** **Extremities warm, strong pulse throughout** **Active ROM** **+5 strength bilaterally** **Low fall risk** **Independent**
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**Alert and oriented to person, place, situation, and time** **Clear speech** **Normal cognition.**
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):**	**Able to cope and understand educations** **Retired- lives at home**

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	88bpm	152/68	24	36.5 C	98% 2L O2

					on NC
1100	68bpm	138/62	24	36.8 C	97% 2L O2 on NC

Vital Sign Trends:

Vital signs within normal limits. BP and HR decreased after treatment. Oxygen saturated and RR remained stable on 2L nasal cannula.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0700	Numbers scale	Generalized	6/10	Generalized pain	Tylenol administered
1100	Numbers Scale	Generalized	2/10	Generalized pain	No intervention at this time

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20g **Location of IV:** Left AC **Date on IV:** 4/8/20 (yesterday) **Patency of IV:** patent **Signs of erythema, drainage, etc.:** N/a **IV dressing assessment:** clean, dry, intact	NS at 75mLhr

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
NS 75mL/hr for 4 hours 240mL (tea) 120mL (apple juice)	Urine (1750 mL) Stool x2

Nursing Care

Summary of Care (2 points)

Overview of care: Pt started on oxygen therapy along with DuoNeb treatment. Pt also received NS to replace fluids. Antibiotics given to prevent possible infections such as pneumonia.

Procedures/testing done: CXR, EKC, ABGs, BUN/Creatinine, CBC

Complaints/Issues: N/A

Vital signs (stable/unstable): stable

Tolerating diet, activity, etc.: Tolerating activity and interventions well

Physician notifications: none.

Future plans for patient: D/C home

Discharge Planning (2 points)

Discharge location: Home

Home health needs (if applicable): Oxygen therapy and visiting nurses

Equipment needs (if applicable): Oxygen, nasal cannula, bath aide

Follow up plan: PCP follow up in 1 week following discharg

Education needs: Activity with rest periods. Checking O2 sat and proper oxygen placement.

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

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and "as evidenced by" components	• Explain why the nursing diagnosis was chosen		• How did the patient/ family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.

1. Impaired gas exchange related to altered oxygen supply as evidence by dyspnea	This diagnosis was chosen because the client presented with complaints of shortness of breath	**1.**2L O2 nasal cannula **2.**DuoNeb treatment	Pt tolerated treatment well. Educated on proper nebulizer treatment to administer on own at home.
2. Activity intolerance related to imbalanced oxygen supply and demand as evidence by exertional dyspnea	Client stated that his activity levels have been declining	**1.** Increase activity levels as tolerated **2.**Oxygen therapy	Pt tolerated activity well. Taught how to properly place nasal canula. Home oxygen prescribed. Comfortable with administering on own
3. Risk for decreased cardiac output related to vasoconstriction as evidence by HTN diagnosis	This was chosen due to history of HTN and albuterol treatment which can cause vasoconstriction	**1.** Metoprolol administration **2**Lisinopril administration	Pt has used these medications prior to admission. Understands the importance of taking medication as prescribed.
4. Risk of infection related to disordered lung function as evidence by COPD diagnosis	This is chosen due to the antibiotic treatment	**1.** Azithromycin administration **2.** Levaquin administration	Pt handling treatment well. No adverse reactions observed.

Other References (APA):

Nursing Diagnosis List (2018). Retrieved from www.nandanursingdiagnosislist.org

Concept Map (20 Points):

N431 CARE PLAN