N321 Care Plan #1

Lakeview College of Nursing

Molly Rogers

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
09/20/20	M.K.	55	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Disabled	Single	NKA
Code Status	**Height**	**Weight**	
Full Code	191 cm	106 kg	

Medical History (5 Points)

Past Medical History: PT diagnosed with heart failure, Hypertension, and Hypoxemia

Past Surgical History: PT had a Spinal Fusion in 1998, Cardiac Catheter, Catheter Procedure, Colostomy, Stoma, and Lithotripsy

Family History: Uncle with Heart Disease

Social History (tobacco/alcohol/drugs): PT is a past alcohol user. PT reports no recreational drug use. PT reports past smokeless tobacco use, but quit several years ago

Assistive Devices: PT uses a special bed at home, a wheelchair, and a Hoyer lift

Living Situation: PT lives alone, and receives in-home help about eight hours a day

Education Level: Unknown

Admission Assessment

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

History of present Illness (10 points): Onset: On September 20, 2020, a 55 year old pleasant, Caucasian, single male was admitted to the Emergency Department for fatigue, shortness of breath, and a cough. Location: Lungs, and whole body fatigue. Duration: PT reports symptoms started on 09/19/2020, and the Home Health Nurse called 911, and he was brought to the Emergency Department via EMS. PT has a history of heart failure, hypertension, hypoxemia, and quadriplegia from a cervical spine injury. Characteristics: PT states that he is unable to take

a deep breath and has an unproductive cough. PT was brought in because COVID-19 was suspected. Aggravating: PT does not like to lay flat, and prefers to sit up in bed as it is easier to breathe. Relieving: PT did not try any relieving factors, his Home Health Nurse just called 911. Treatment: PT asked for an incentive spirometer to take home with him for the future.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Acute Hypercapnic Respiratory Failure

Secondary Diagnosis (if applicable): Chronic Respiratory Failure with Hypoxia

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

During chronic respiratory failure, the pulmonary system is not oxygenating the blood and it does not remove carbon dioxide like it should. The patient's hemoglobin and hematocrit were both low, indicating that the patient has low blood oxygen levels. Also, the patient's carbon dioxide levels were very high, indicating a failure to eliminate carbon dioxide efficiently (Capriotti & Frizzell, 2016). Respiratory failure is caused by high carbon dioxide levels and can be brought on by COPD. Also, air sacs in your lungs can fill up with fluid, causing acute respiratory failure (Macon, 2018). For this reason, the patient received a thoracentesis. Hypoxemia is also a disorder that accompanies hypercapnic respiratory failure (Capriotti & Frizzell, 2016). The patient's respiratory is likely brought on by his history of heart failure. While the patient did not have a fever, he was experiencing dyspnea and a cough, which is why COVID-19 was suspected (Capriotti & Frizzell, 2016).

Diagnostic testing is vital to the assessment of respiratory failure. ABG's should be drawn to determine serum blood values. The patient did have blood drawn to perform ABG's, which further suggested the patient was in respiratory failure (Capriotti & Frizzell, 2016). Continuous pulse oximetry is necessary to measure the blood oxygen saturation. The patient's

oxygen level was at 98% upon admission to the emergency department, and was 92% when taken the next day. The patient was also not wearing his oxygen. A chest x-ray can be performed to determine lung expansion or if there is fluid in the lungs (Capriotti & Frizzell, 2016; Macon, 2018). The patient received a chest x-ray on 09/21/2020, but the results were still unavailable. A thoracentesis can also be performed to remove fluid from the pleural cavity. The patient received a thoracentesis on 09/21/2020 where only 1 mL of fluid was removed, and the results were also still pending (Capriotti & Frizzell, 2016).

Medications and procedures can be used to treat respiratory failure. The patient was on multiple antibiotics, which can help treat a respiratory infection. Bronchodilators can also be prescribed to reduce bronchospasm. Other medications that can be used include thrombolytic and anticoagulant medications (Capriotti & Frizzell, 2016). The patient was receiving anticoagulant therapy. Therapies also suggested include airway suctioning, chest physiotherapy, incentive spirometry, and nasotracheal suctioning (Capriotti & Frizzell, 2016). The patient was meeting with respiratory therapy to use the incentive spirometer, and was also to take an incentive spirometer home to continue to help strengthen the lungs (Capriotti & Frizzell, 2016). If medical treatment is not sought, the lungs can experience long-term damage (Macon, 2018).

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. (2016). *Pathophysiology: Introductory concepts and clinical perspectives.* (1st ed.). Philadelphia, PA; F.A. Davis Company.

Macon, B. L. (2018). *Acute respiratory failure.* Retrieved September 27, 2020, from https://www.healthline.com/health/acute-respiratory-failure

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 – 6.3	4.89	N/A	
Hgb	14 – 18	11	N/A	Respiratory Failure
Hct	41 – 51	35.8	N/A	Respiratory failure
Platelets	140 – 440	145	N/A	
WBC	4 – 10	6.7	N/A	
Neutrophils	2 – 6.9	69.7	N/A	Suggests a bacterial infection
Lymphocytes	0.6 – 3.4	18.3	N/A	Fighing bacterial and viral infections
Monocytes	0 – 8	11.1	N/A	Indicates chronic infection as in respiratory infection
Eosinophils	0 – 0.5 (Sarah Bush Lincoln Health Center, 2020)	0.6	N/A	Indicates an infection
Bands	UNK	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	139	N/A	
K+	3.5 – 5.1	3.8	N/A	
Cl-	98 – 107	90	N/A	Low level because pt has heart failure
CO2	21 – 31	>45	N/A	High because pt has hypercapnic respiratory failure
Glucose	74 – 109	115	N/A	Pt may be diabetic
BUN	7 – 25	14	N/A	

Creatinine	0.7 – 1.2	0.31	N/A	Low because pt has low muscle mass because he is quadriplegic
Albumin	3.5 – 5.2	3.8	N/A	
Calcium	8.6 – 10.3	8.4	N/A	Pt has received multiple IV infusions
Mag	1.6 – 2.6	1.8	N/A	
Phosphate	1.8 – 2.6	N/A	N/A	
Bilirubin	0.3 – 1.0	0.5	N/A	
Alk Phos	40 – 130	117	N/A	
AST	10 – 40	12	N/A	
ALT	10 – 55	15	N/A	
Amylase	6.6 – 35.2	N/A	N/A	
Lipase	0 – 160	N/A	N/A	
Lactic Acid	10 – 25	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	11.0 – 12.5	14.1	N/A	
PT	11 – 12.5	1.06	N/A	
PTT	30 – 40	34.8	N/A	
D-Dimer	N/A	N/A	N/A	
BNP	<100	124	N/A	Pt has chronic heart failure
HDL	>45	N/A	N/A	

LDL	<130	N/A	N/A	
Cholesterol	<200	N/A	N/A	
Triglycerides	40 – 160	N/A	N/A	
Hgb A1c	N/A	N/A	N/A	
TSH	<130%	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	Clear/Yellow	Hazy/Yellow	N/A	Presence of RBCs
pH	5 – 7	6	N/A	
Specific Gravity	1.005 – 1.030	1.012	N/A	
Glucose	Negative	Normal	N/A	
Protein	Negative	Negative	N/A	
Ketones	Negative	Negative	N/A	
WBC	Negative	80	N/A	Indicates a UTI
RBC	Negative	45	N/A	Could indicate overaggressive anticoagulant therapy
Leukoesterase	Negative (Merck Manuals, 2020)	3+	N/A	Indicates a UTI (Pagana et al., 2019)

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	
Blood Culture	Negative	N/A	N/A	
Sputum Culture	Normal	N/A	N/A	

	upper respiratory tract			
Stool Culture	Normal intestinal flora (Pagana et al., 2019)	N/A	N/A	

Lab Correlations Reference (APA):

Merck Manuals. (2020). *Normal laboratory values.* https://www.merckmanuals.com/professional/resources/normal-laboratory-values/normal-laboratory-values

Pagana, K., Pagana, T., & Pagana, T. (2019). *Mosby's diagnostic & laboratory test reference* (14th ed.). Elsevier.

Sarah Bush Lincoln Health Center (2020). *Reference range (lab values).* Mattoon, IL.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

XR Chest Thoracentesis – Results in progress

CT Chest with contrast – Results in progress

Diagnostic Test Correlation (5 points):

N/A because procedures were just completed and results were unavailable

Diagnostic Test Reference (APA):

N/A

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

Home Medications (5 required)

Brand/Generic	Effexor/ venlafaxine	Lasix/ furosemide	Ditropan/ oxybutynin	Gablofen/ baclofen	Viagra/ sildenafil
Dose	25 mg	40 mg	5mg	20 mg	20 mg
Frequency	Daily	BID	TID	BID	PRN
Route	PO	PO	PO	PO	PO
Classification	Antidepressant	Antihypertensive/ diuretic	Antispasmodic	Antispatic/ muscle relaxant	Erectile Dysfunction Agent
Mechanism of Action	Inhibits reuptake of norepinephrine and serotonin to elevate mood and reduce depression	Inhibits water and sodium reabsorption and increases urine formation	Exerts antimuscarinic and potent direct astispasmodic actions on bladder muscle to decreased contractions	Not fully understood at this time; GABA-B receptor agonist	Enhances the effect of nitric oxide released in the penis by stimulation
Reason Client Taking	To treat and prevent relapse of depression	To reduce edema caused by heart failure	To treat overactive bladder	To relieve spasms	To treat erectile dysfunction
Contraindications (2)	Hypersensitivity to desvenlafaxine; Use of an MAOI within 14 days	Anuria; hypersensitivity to furosemide or its components	GI obstruction; Acute hemorrhage	Hypersensitivity to baclofen; Stroke	Hypersensitivity to sildenafil; Continuous or intermittent nitrate therapy
Side Effects/Adverse Reactions (2)	Cough; eosinophilic pneumonia	Muscle pain; thirst	Asthma; cough	Confusion/ Seizure	Upper respiratory tract infection; Pulmonary hemorrhage
Nursing Considerations (2)	Do not give to patients with bradycardia; Monitor blood pressure often	Obtain pt's weight before and during therapy; Give drug in the morning	Assess urinary symptoms before and after treatment; Do not crush the drug	Avoid alcohol; Report frequent urination	Monitor blood pressure and heart rate; Use cautiously in pt's with left ventricular outflow obstruction

Hospital Medications (5 required)

Brand/Generic	Lovenox/ enoxaparin	Levaquin/ levofloxacin	Protonix/ pantoprazole	Zosyn/ piperacillin	Vancocin/ Vancomycin
Dose	40 mg	750 mg	40 mg	4.5 g	2500 mg
Frequency	Daily	Q24H	Daily	Q6H	Q12H
Route	SQ	IVPB	Oral	IVPB	IVPB
Classification	Anticoagulant	Antibiotic	Antiulcer	Antibiotic	Antibiotic
Mechanism of Action	Potentiates the action of antithrombin III, a coagulation inhibitor	Interferes with bacterial cell replication by inhibiting the bacterial enzyme DNA gyrase	Interferes with gastric acid secretion by inhibiting enzyme system	Kills bacteria by inhibiting the synthesis of bacterial cell walls	Inhibits bacterial RNA and cell wall synthesis
Reason Client Taking	To prevent DVT	To treat pneumonia	To treat erosive esophagitis associated with GERD	To treat pneumonia	To treat bacterial septicemia, bone and joint infections, and pneumonia
Contraindications (2)	Active major bleeding; History of HIT	Hypersensitivity to levofloxacin; Myasthenia gravis	Hypersensitivity to pantoprazole; Concurrent therapy with rilpivirine-containing products	Hypersensitivity to penicillin; Significant drop in Neutrophils	Hypersensitivity to corn or corn products; Hypersensitivity to vancomycin
Side Effects/Adverse Reactions (2)	Dyspnea; Pneumonia	Hypersensitivity pneumonitis; Arrhythmias	Dyspnea; Upper Respiratory Tract Infection	Fever; Diarrhea	Dyspnea; Wheezing
Nursing Considerations (2)	Do not give by IM injection; Use caution in pt's with increased risk of hemorrhage	Obtain culture and sensitivity tests before treatment; Avoid giving drug within two hours of antacids	Monitor PT or INR; Monitor pt's urine output	Perform frequent blood tests; Can affect certain medical tests	Infuse over at least 1hr/g; Monitor blood vancomycin concentrations frequently

Medications Reference (APA):

2020 Nurse's drug handbook. (2020). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 Alert & Oriented X4 No Acute Distress Well-groomed and appropriately dressed
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	 Pink Dry Warm, 36.5 C No tenting/under 3 seconds None None None 13 – Moderate risk (has pressure ulcer from home)
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Supple, non-tender-no carotid bruits, no JVD, no lymphadenopathy, no thyromegaly, normocephalic Clear tympanic membrane PERRLA, normal conjunctiva, EOMI No sinus tenderness No decay, moist oral mucosa
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:**	 Normal rate, S1 and S2 Regular rhythm N/A Less than 3 seconds
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	 Clear to auscultation and percussion, non-labored respirations
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet**	 Normal Normal

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:**	191 cm 106 kg Normal in all four quadrants 09/21/20 None None None None None None None
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** **Size:**	 Yellow Hazy 2300 mL Normal, no discharge Suprapubic
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☒**	 No ROM, PT is quadriplegic Wheelchair, special home bed, Hoyer lift Weak bilaterally (arms and legs) 55 2 assist PT cannot walk
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 X4 Alert Clear and intelligible Alert and responsive
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):**	 Home Health nurses Appropriate for age N/A Family unknown, but has home nurses about eight hours every day

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1515	69	136/71	20	36.5	92
0746	78	150/80	23	36.2	98

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1515	Numerical	N/A	0/10	N/A	N/A
0900	Numerical	N/A	0/10	N/A	N/A

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 g **Location of IV:** Right hand **Date on IV:** 09/20/2020 **Patency of IV:** Patent **Signs of erythema, drainage, etc.:** N/A **IV dressing assessment:** Dry and intact	Saline Lock

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Oral – 200 mL IV – 550 mL Total – 750 mL	Suprapubic Catheter – 2300 mL Total – 2300 mL

Nursing Care

Summary of Care (2 points)

Overview of care: PT is A & O X 4, able to verbalize his needs, denies pain, and is a bed-rest turn. PT has been seen by Dr. Alao during the shift.

Procedures/testing done: PT had a thoracentesis and minimal fluid was retrieved.

Complaints/Issues: PT has no complaints or issues. PT reports no pain.

Vital signs (stable/unstable): Tele shows NSR with a HR in the 70's, VSS, and will f continue to monitor.
Tolerating diet, activity, etc.: PT is quadriplegic and is unable to move, and has a normal diet.
Physician notifications: N/A

Future plans for patient: PT plans to discharge back to home within the next 24-48 hours.

Discharge Planning (2 points)

Discharge location: Home

Home health needs (if applicable): Home Health Nurse about eight hours a day

Equipment needs (if applicable): Wheelchair, special bed, and Hoyer lift

Follow up plan: N/A

Education needs: N/A

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	• Explain why the nursing diagnosis was chosen		• How did the patient/family respond to the nurse's actions?

"as evidenced by" components			• Client response, status of goals and outcomes, modifications to plan.
1. Impaired gas exchange	Related to acute hypercapnic respiratory failure, as evidenced by: shortness of breath and elevated CO2 levels	**1.** Turn patient every two hours **2.** Sit patient up in bed and make sure he doesn't slump down	Goal met. Pt was turned by nurses every two hours, and had an "air mattress bed" to assist with moving. Goal met. Pt was pulled up in bed by air mattress and nurses multiple times so his airway could stay clear and open
2. Ineffective breathing pattern	Related to hypoxemia, as evidenced by: elevated respirations	**1.** Using an incentive spirometer **2.** Provide pt oxygen therapy	Unsure if goal met. RT met with pt about incentive spirometer and was giving him one for home as well Goal partially met. Pt was not receiving oxygen while in the hospital but wears oxygen at home
3. Risk for Impaired Skin Integrity	Related to bed rest as evidenced by: pressure ulcer already formed	**1.** Frequent visits by wound care **2**. Reposition patient frequently	Goal met. Would care treated pt at least one time during his stay, cleaned the wound, and applied new dressing Goal met. Pt was turned every two hours to prevent further skin breakdown

Other References (APA):

Concept Map (20 Points):

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Subjective Data

Pt states that he is short of breath, is experiencing fatigue, and has a cough. COVID-19 was originally suspected. Pt denies any pain states 0/10 on the numerical pain scale.

Nursing Diagnosis/Outcomes

Impaired gas exchange related to hypercapnic respiratory failure, as evidenced by: shortness of breath and elevated CO2 levels.
Goal met. Pt was turned by nurses every two hours, and had an "air mattress bed" to assist with moving.
Goal met. Pt was pulled up in bed by air mattress and nurses multiple times so his airway could stay clear and open
Ineffective breathing pattern related to hypoxemia, as evidenced by: elevated respirations.
Unsure if goal met. RT met with pt about incentive spirometer and was giving him one for home as well
Goal partially met. Pt was not receiving oxygen while in the hospital but wears oxygen at home
Risk for impaired skin integrity related to bed rest as evidenced by: pressure ulcer already formed.
Goal met. Would care treated pt at least one time during his stay, cleaned the wound, and applied new dressing
Goal met. Pt was turned every two hours to prevent further skin breakdown

Objective Data

Pt's abnormal vital signs upon admit are:
BP: 150/80 mmHg
RR: 23
Pt's current abnormal vital signs are:
Oxygen: 92%
Visual assessment shows that pt has slight difficulty getting a full breath of air. Pt had a chest x-ray and thoracentesis, but is still waiting on results. Hgb and Hct levels are 11 and 35.8 respectively, which are both low. Pt also has a high level of CO2 at >45. All three of these levels indicate respiratory failure

Patient Information

55-year-old, quadriplegic, single, Caucasian male, with a history of heart failure, hypertension, and hypoxemia. Pt is very pleasant, alert and oriented, and is able to verbalize his needs.

Nursing Interventions

1. Turn patient every two hours to ensure there is no fluid build up.
2. Sit patient up in bed and make sure he doesn't slump down to ensure his airway is open.
3. Using an incentive spirometer to help strengthen the patient's lungs.
4. Provide patient with oxygen therapy as his oxygen saturation was only 92%.
5. Frequent visits by wound care to ensure that his current pressure ulcer does not worsen, and there is no new formations of pressure ulcers.
6. Reposition patient frequently to maintain skin integrity.

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