N431 Care Plan #1

Lakeview College of Nursing

Hope Dykes

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
06/28/20	**SC**	**66**	F
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
W/C	**Substitute teacher**	**M**	**NKA**
Code Status	**Height**	**Weight**	
FULL	**5'6"**	**185lbs.**	

Medical History (5 Points)

Past Medical History: HTN, GERD, Hypothyroidism

Past Surgical History: None.

Family History: None significant.

Social History (tobacco/alcohol/drugs): Pt reports smoking about 1/2ppd for the past 20 years, no alcohol or illegal drug use.

Assistive Devices: None.

Living Situation: Pt lives with husband

Education Level: Does not affect learning ability.

Admission Assessment

Chief Complaint (2 points): Shortness of breath

History of present Illness (10 points): Pt reports a cold started over 1 week ago. She was treating with OTC cold medications. SOB started a couple of days ago that was followed by a productive cough with green sputum. She woke up at 1am feeling like she was suffocating, and her husband brought her into the ER. She is feeling very weak and anxious and says she has never felt like this in her life. She reported she came in when she "felt like chest was suffocating". Following a negative COVID-19 test, she was admitted to the medical-surgical unit for observation and antibiotics since her oxygen saturation continues to be low.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Pneumonia

Secondary Diagnosis (if applicable): None.

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

Pneumonia is an infection of the lungs that can be caused by bacteria, bacteria-like organisms, fungi, and viruses. Most pneumonia cases are community-acquired, although there are other types, including hospital-acquired, health-care acquired, and aspiration pneumonia. Pneumonia is often a secondary infection in those with certain chronic health conditions, those who smoke, and weakened immune systems. Some cases cause only a mild cough, and the spectrum of severity leads to death.

Signs and symptoms include pain in the chest, productive cough, fever or lower-than-normal body temperature, shortness of breath, nausea, vomiting, diarrhea, and confusion in adults age 65 and

older (Capriotti & Frizzell, 2016). They can be confused with signs and symptoms of cold or flu, but they tend to last longer.

Patient SC came into the emergency department complaining of chest pain, shortness of breath, and a productive cough with green sputum. She was concerned about COVID-19, but her test came back negative. She has been fighting a cold for over a week. All of these signs and symptoms are consistent with a diagnosis of bacterial pneumonia. Hypertension is an underlying condition that can lower her immune response (Capriotti & Frizzell, 2016).

Upon arrival, the patient was anxious, weak, and pale. She was experiencing tachycardia, and a temperature of 101.1 F. Her respirations were labored, and she was breathing at 28rpm. She reports coughing up green sputum, indicating a bacterial infection of some kind (Capriotti & Frizzell, 2016). She said her chest pain was 7/10, and her pulse ox was low at 90% on 2L of oxygen.

The physician ordered a chest x-ray, EKG, and labs to confirm a diagnosis. Her WBC count showed 17,000, which is above the normal range of 4,000-10,000, so she was started on IV antibiotics to treat the infection. Her chest x-ray showed bilateral infiltrates. This x-ray was the diagnostic test used to identify the location and severity of the illness in the lungs (Mayo Clinic, 2020).

Pathophysiology References (2) (APA):

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

Mayo Clinic. (2020). *Pneumonia.* https://www.mayoclinic.org/diseases-conditions/pneumonia/symptoms-causes/syc-20354204

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	4.40-5.80	5.6		
Hgb	13-16.5	16.0		
Hct	38.0-50.0 %	48%		
Platelets	140-440	150		
WBC	4,000-11,000	17,000		High white blood cells indicate a bacterial infection/ inflammation (Capriotti & Frizzell, 2016)
Neutrophils	40-60%	68%		Neutrophils are high due to the body's response to perforation and surgery. They are first esponders (Capriotti & Frizzell, 2016). This would indicate the resence of pneumonia in this pt.
Lymphocytes	20-40%	22%		
Monocytes	0.2-1.0	0.8		
Eosinophils	1-4%	1%		

Bands	**0-4%**	**N/A**		

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

Lab	lormal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	**133-144**	**155**		**Hypernatremia can be an ndicator of dehydration. The pt may not have been drinking nough due to feeling ill (Capriotti & Frizzell, 2016).**
K+	**3.5-5**	**3.2**		**Hypokalemia is an indicator of severe bacterial pneumonia (Capriotti & Frizzell, 2016).**
Cl-	**98-107**	**N/A**		
CO2	**22-28**	**N/A**		
Glucose	**70-99**	**59**		**The patient's blood sugar is lightly low. This could be due to not eating in awhile since the pt s not been feeling well (Capriotti & Frizzell, 2016).**
BUN	**7-25**	**28**		**n elevated BUN indicates protein in the blood that is normally removed by the kidneys. This**

				number rises with dehydration (Capriotti & Frizzell, 2016)
Creatinine	**0.50-1.20**	**N/A**		
Albumin	**3.5-5.3**	**N/A**		
Calcium	**8.8-10.2**	**N/A**		
Mag	**1.6-2.6**	**N/A**		
Phosphate	**2.5-4.5**	**N/A**		
Bilirubin	**<0.5**	**N/A**		
Alk Phos	**39-104**	**N/A**		
AST	**13-39**	**N/A**		
ALT	**7-52**	**N/A**		
Amylase	**23-85**	**N/A**		
Lipase	**0-160**	**N/A**		
Lactic Acid	**0.5-1**	**N/A**		
Troponin	**)-0.040 ng/mL**	**N/A**		
CK-MB	**5-25 U/L**	**N/A**		

Total CK	**22-198 U/L**	**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	oday's Value	Reason for Abnormal
INR	**0.8-1.2**	**N/A**		
PT	**10-14sec**	**N/A**		
PTT	**30-45sec**	**N/A**		
D-Dimer	**<0.5**	**N/A**		
BNP	**<100**	**N/A**		
HDL	**<200**	**N/A**		
LDL	**>60**	**N/A**		
Cholesterol	**<200**	**N/A**		
Triglycerides	**<140**	**N/A**		
Hgb A1c	**<6.5**	**N/A**		
TSH	**0.4-4.0**	**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 and Clear	Dark Yellow, Clear		ark urine indicates dehydration (Capriotti & Frizzell, 2016).
pH	5.0-9.0	5.2		
Specific Gravity	0.003-1.005	1.005		
Glucose	Neg	Neg		
Protein	Neg	Neg		
Ketones	Neg	Neg		
WBC	Neg	Neg		
RBC	Neg	Neg		
Leukoesterase	Neg	Neg		

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	oday's Value	Explanation of Findings
pH	7.35-7.45	N/A		
PaO2	80-100	N/A		
PaCO2	35-45	N/A		
HCO3	22-26	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	oday's Value	Explanation of Findings
Urine Culture	N/A	N/A		
Blood Culture	N/A	N/A		
Sputum Culture	N/A	Waiting for esults		Results in progress

Stool Culture	**N/A**	**N/A**		

Lab Correlations Reference (APA):

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

Sankaran, R.T., Mattana, J., Pollack, S., Bhat P., Ahuja T., Patel A., & Singhal, P. C. (1997). Laboratory abnormalities in patients with bacterial pneumonia. *Chest*. Pub Med. https://pubmed.ncbi.nlm.nih.gov/9118693/

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

--Chest X-ray, Right and Left Lower Lobes. Showed diffuse bilateral pulmonary infiltrates in both lower lobes.

--EKG shows sinus tachycardia.

Diagnostic Test Correlation (5 points):

Both of these diagnostic findings are consistent with pneumonia.

Diagnostic Test Reference (APA):

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

Mayo Clinic. (2020). *Pneumonia*. https://www.mayoclinic.org/diseases-conditions/pneumonia/symptoms-causes/syc-20354204

Current Medications (10 points, 1 point per completed med)

10 different medications must be completed

Home Medications (5 required) *** Pt on 3 home meds.**

Brand/Generic	**Multivitamin**	**Synthroid/ levothyroxine**	**Microzide/ hydrochlorothiazide (HCTZ)**	**N/A**	**N/A**
Dose	**1 tab**	**50mcg**	**25mg**		
Frequency	**qd**	**qam**	**qd**		
Route	**Oral (po)**	**Oral (po)**	**Oral (po)**		
Classification	**Vitamin/ Mineral**	**Thyroid hormone replacement**	**Antihypertensive/ diuretic**		

Mechanism of Action	**Adds vitamins that may be lacking in the diet.**	**Replaces T4 normally produced by the thyroid**	**Reduces the amount of water in the body, which eases blood pressure**		
Reason Client Taking	**Dietary supplement**	**Hypothyroidism**	**Hypertension**		
Contraindications (2)	**Antacids, Milk**	**Osteoporosis, certain types of nuts**	**Renal function problems, Asthma**		
Side Effects/Adverse Reactions (2)	**Nausea, Headache**	**Tachycardia, Insomnia**	**Muscle cramps, weakness**		
Nursing Considerations (2)	**These pills may be hard to swallow but should not be crushed. Gummies or liquid can replace tabs.** **Give with food to prevent**	**These pills must be administered 30 minutes before breakfast each day.** **Watch for signs of hyperthyroidism, including**	**Administer medication with a full glass of water.** **HTN is often asymptomatic. It is important to educate pt about compliance.**		

	stomach upset.	**insomnia and tachycardia.**			
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**N/A**	**TSH, T4, HR**	**BP**		
Client Teaching needs (2)	**Be careful not to overdose.** **Do not crush. Gummy and liquid forms are available.**	**Take 30 minutes before breakfast.** **Take at the same time each day.**	**Reduce sodium in the diet while using this medication.** **Do not drink alcohol while using this medication.**		

Hospital Medications (5 required)

Brand/Generic	**Toradol/ ketorolac**	**Zosyn/ piperacillin-tazobactam**	**Tussionex/ chlorpheniramine-hydrocodone**	**Solumedrol/**	**Duoneb/ Ipratropium bromide**

				methylprednisolone	
Dose	**30mg**	**3.375g**	**5mL**	**125mg**	**3mL**
Frequency	**Q8h prn for pain**	**Q6h**	**Q12h prn for pain/ cough**	**Q6h**	**Q4h**
Route	**IV**	**IV**	**Oral (po)**	**IV**	**Inhalation**
Classification	**NSAID**	**Antibiotic**	**Antihistamine/narcotic**	**Glucocorticoid**	**Bronchodilator**
Mechanism of Action	**Reduces prostaglandins that cause inflammation**	**Fights bacterial infections**	**Blocks H1 (histamine) and suppresses cough reflex**	**Reduces inflammation in the body**	**Relaxes muscles in the airway so O2 can get to lungs**
Reason Client Taking	**Reduces pain and inflammation**	**Pneumonia**	**Suppress cough and ease pain due to pneumonia**	**Pneumonia causes inflammation in the lungs.**	**Pneumonia- makes it easier to breathe**
Contraindications (2)	**Warfarin, Renal dysfunction**	**Seizures, High sodium**	**Alcohol, Hypotension**	**Warfarin, NSAIDS**	**Alcohol, Other meds**

					containing albuterol
Side Effects/Adverse Reactions (2)	**Headache, Diarrhea**	**Nausea, Insomnia**	**Dizziness, Fatigue**	**Headache, Confusion**	**Dizziness, Constipation**
Nursing Considerations (2)	**Watch for bleeding, esp in stomach. Do not give to pts with kidney or liver dysfunction**	**Tell pt to avoid alcohol while using this medication. Put pt on low-sodium diet.**	**High risk for dependence / addiction. Dangerous if taken with alcohol.**	**Reduce salt intake while pt is using this medication as edema may result. This medication may make pt moody and restless.**	**This medication may increase dizziness. Watch pt for falls. Monitor BP closely in clients using Duoneb.**
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**HR, BP**	**Renal function**	**HR, BP.** **Monitor for signs of respiratory depression**	**Blood glucose**	**HR**
Client Teaching needs (2)	**Take with an antacid or food to prevent upset stomach.** **Do not take NSAIDs without**	**Diarrhea is a common side effect with this drug.** **Should only be used to treat bacterial infections.**	**Do not mix oral suspension with any other liquids.** **Do not stop using medication abruptly**	**Do not stop taking abruptly or change dosage.** **Do not obtain vaccinations without**	**Do not use to treat bronchospasm.** **It may take up to 2 weeks for medicatio**

	consulting prescriber.		**after long term use.**	**consulting prescriber.**	**n to have an effect.**

Medications Reference (APA):

2019 Nurse's Drug Handbook (18th ed.). (2019). Jones & Bartlett Learning.

Pfizer. (2020). *Zosyn: Piperacillin, tazobactam.*

https://www.pfizermedicalinformation.com/en-us/zosyn

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**Well groomed, pale, anxious.** **A&Ox3, oriented to person, place, and time**

INTEGUMENTARY (2 points):	
Skin color:	**Pale**
Character:	**Dry**
Temperature:	**Warm to touch**
Turgor:	**Mild skin tenting present**
Rashes:	**No rashes, bruises, or wounds present**
Bruises:	
Wounds: .	
Braden Score:	**BRADEN SCORE= 20**
Drains present: Y☐ N X	
Type:	
HEENT (1 point):	**Pt is pale. Lips are dry and cracked.**
Head/Neck:	**PERRLA. No neck vein distension noted.**
Ears:	**No drainage or discharge from ears or nose.**
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 X** **Edema Y ☐ N X** **Location of Edema:**	S1 and S2 present with no murmur. Sinus tachycardia present at 110 bpm. Regular rhythm. Cap refill 5sec. Peripheral pulses present +2 No neck distension or edema noted.
RESPIRATORY (2 points): **Accessory muscle use: Y X N ☐** **Breath Sounds: Location, character**	Rales heard in lower lobes. Productive cough with green sputum. Pt complains of chest tightness and back pain.

GASTROINTESTINAL (2 points):	
Diet at home:	Normal diet at home.
Current Diet	Normal diet as tolerated while inpatient.
Height:	5’3”
Weight:	155lbs
Auscultation Bowel sounds:	All GI findings WNL.
Last BM:	Bowel sounds present in all 4 quadrants
Palpation: Pain, Mass etc.:	Last BM yesterday.
Inspection:	No distention, incisions, scars, or drains.
Distention:	
Incisions:	
Scars:	
Drains:	
Wounds:	
Ostomy: Y ☐ N X	
Nasogastric: Y ☐ N X	
Size:	
Feeding tubes/PEG tube Y ☐ N X	
Type:	

GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N X** **Dialysis: Y ☐ N X** **Inspection of genitals:** **Catheter: Y ☐ N X** **Type:** **Size:**	**Urine dark yellow, clear. 500mL in hat during shift.** **No pain with urination. No catheter.** **Did not inspect genitals.**
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N X** **Fall Risk: Y X N☐** **Fall Score: 10** **Activity/Mobility Status:** **Independent (up ad lib) X** **Needs assistance with equipment** **Needs support to stand and walk**	**.Fall Score= 10 -** Moderate fall risk due to weakness and inpatient medications. Active ROM in all extremities. Strength ⅝ with resistance bilaterally. No joint swelling. No supportive devices. Pt able to get up and walk independently. No equipment necessary.

NEUROLOGICAL (2 points): **MAEW: Y X N☐** **PERLA: Y X N☐** **Strength Equal: Y X N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	A&Ox3, oriented to person, time, place. Moves all extremities well. PERLA. Strength ⅘ bilaterally. No speech or sensory deficits noted. No change in LOC during shift.
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):**	Pt lives at home with husband. She has a grown child away from home. She belongs to the First United Methodist Church and has just started attending again.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0830	**110**	**150/98**	**24**	**99.8 F**	**90% on 2L** **NC**

1100	**108**	**126/84**	**22**	**99.2**	**95% on 3L** **NC**

Vital Sign Trends: All vitals signs stabilizing throughout shift. Temperature, respirations, and heart rate slightly elevated but improving.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0830	**0-10**	**Chest/Back**	**7/10**	**Tightness, Pressure**	**Dilaudid, 1.5mg given in ER; Toradol, 30mg, given**
1100	**0-10**	**Back**	**5/10**	**Tightness, Pressure**	**This was following Toradol. Tussionex, 5mL ordered to help.**

IV Assessment (2 Points)

IV Assessment	**0.9NS at 150 mL/hr**
Size of IV:	18g
Location of IV:	Left Basilic
Date on IV:	06/28/2020
Patency of IV:	Patent, flushes easily
Signs of erythema, drainage, etc.:	No signs of erythema or drainage

IV dressing assessment:	Secured with steri-strips and tegaderm dressing. Dry and intact.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
600 mL (NS via IV)	**500mL**

Nursing Care

Summary of Care (2 points)

Overview of care: Pt is sitting upright, on NC 3L. O2 sat is improving.

Procedures/testing done: Chest x-ray, EKG, labs

Complaints/Issues: SOB, chest tightness, pain 7/10, anxious.

Vital signs (stable/unstable): Stable, fairly unchanged since admission. Vitals have slightly improved.

Tolerating diet, activity, etc.: Pt fatigued and anxious. Has not eaten since admission.

Physician notifications: Changed O2 from 2L to 3L due to poor oxygenation.

Future plans for patient: Pt will receive IV antibiotics and observation until heart rate and oxygenation return to normal, then patient will be discharged home.

Discharge Planning (2 points)

Discharge location: Discharge to home with spouse.

Home health needs (if applicable): Pt will continue oral antibiotics at home until completed.

Equipment needs (if applicable): N/A

Follow up plan: Pt will make follow-up appointment with PCP 1 week after discharge for reassessment of symptoms.

Education needs: Pt will need educated on the importance of completing antibiotics, when to contact PCP, and when to return to hospital (i.e. if having trouble breathing again).

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.
1. Ineffective airway clearance due to Pneumonia as evidenced by crackles	**Effective oxygen exchange is one of the most important factors in keeping patients alive and**	**1. Promote deep breathing and coughing as much as pt is able in order to clear mucous that is**	**Pt learned and demonstrated back proper use of incentive spirometer. She is practicing deep**

and rales bilaterally, high resp rate, and productive cough.	**healthy. Tissues and organs can be damaged quickly if oxygen is not reaching them well.**	**impairing O2 exchange. Encourage use of incentive spirometer.** **2. Maintain proper hydration through drinking water and intake of IV fluids to thin secretions and make them easier to expel.**	**breathing and coughing upon request.** **Patient is drinking water as tolerated, and mucous secretions are becoming less thick and viscous. IV fluids are keeping her hydrated as well.**
2. Impaired comfort due to chest pain and tightness as evidenced by pt's **Description she felt like she was "suffocating" and pain scale 7/10.**	**This can negatively impact sleep, stress levels, and ability to heal.**	**1. Turn lights in room down to comfort patient. Keep noises to the lowest level possible to promote relaxation.** **2. Provide fresh water, hygiene products, and calm music to promote comfort for patient.**	**Patient appreciated efforts and is complaining less of pain and anxiety. A hot shower eased the pain in her lungs a little, and she reported the music helped her fall asleep.**

3. Readiness for enhanced learning due to prior hx of smoking and beginning new medications at home.	**Pt will need education on how smoking can suppress immune system and make her more prone to these types of lung illnesses.** **She will also need to learn how and why to take her new medications at home and to return to the hospital if symptoms return or worsen.**	**1. Pt will receive education on the role smoking plays in infections of the lungs and be given information on self-help groups if she decides to stop smoking.** **2.Pt will be taught about new medications including how and when to take and possible side effects and interactions.**	**Pt reports not wanting to experience this illness again. She agrees to look into a stop-smoking support group.** **Pt is able to "teach-back" how and when she will take medications. She knows what side effects she needs to call and report, and she knows to return to the hospital if she experiences trouble breathing again.**
4. Imbalanced nutrition due to illness as evidenced by patient's weakness and statement, "I have not really felt like eating over the past few days. I had a snack yesterday".	**Adequate nutrition is necessary for energy and healing.**	**1. Educate patient on healthy snack choices for when she starts to feel like eating again. Encourage her to eat several small meals until her infection is gone.** **2. Identify patient's eating habits prior to her infection. Determine any changes that can help her in the future.**	**Patient verbalized understanding of good food choices and their impact on healing her body.** **Patient's food choices were not overly unhealthy prior to admission. Patient has a good understanding of the need for protein, carbs, and fruits and vegetables in the diet. Goal met.**

Other References (APA):

Carpenito, J. L. (2017). *Handbook of nursing diagnosis* (18th ed.). Wolters Kluwer.

Wilkinson, J. M., & Barcus, L. (2017). *Pearson nursing diagnosis handbook (11th ed)*. Pearson Education, Inc.

Concept Map (20 Points):