

N311 Care Plan # 1

Lakeview College of Nursing

Jackie Smith

Demographics (5 points)

Date of Admission 01/08/2020	Patient Initials R.A.J	Age 60	Gender Male
Race/Ethnicity African American	Occupation Retired Engineer	Marital Status Married	Allergies Sulfa: reaction hives
Code Status Full Code	Height 182.9 cm (72 inches)	Weight 104.5 kg (230 lb)	

Medical History (5 Points)

Past Medical History: Hx of: Peripheral Vascular Disease, Type II Diabetes Mellitus, Chronic Kidney Disease, Coronary Artery Disease, Atrial Fibrillation. Patient was recently discharged after receiving treatment for Atrial Fibrillation and a Type II Diabetic Ulcer of the right foot.

Past Surgical History: Pt states no previous surgeries.

Family History: Maternal Hx includes: Hypertension

Paternal Hx includes: Diabetes, Hyperlipidemia

Social History (tobacco/alcohol/drugs): Pt. states he smokes one pack of cigarettes/day and consumes alcohol 3-5 times/week.

Admission Assessment

Chief Complaint (2 points): Pt was admitted to the E.D. for shortness of breath and weakness.

History of present Illness (10 points): Pt states he was at home asleep in bed when he woke up and experienced difficulty breathing; Pt called 911.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Pneumonia

Secondary Diagnosis (if applicable): NA

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

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“Pneumonia is inflammation of the lung tissue in which alveolar air spaces fill with purulent, inflammatory cells, and fibrin. Infection by bacteria or viruses is the most common cause, although inhalation of chemicals, aspiration of contents from the oropharynx or stomach, or infection by other infectious agents such as rickettsiae, fungi, and yeasts may occur” (Capriotti, p 449).

Pneumonia can be acquired in the community, at a hospital, and from a ventilator and there are more than 3 million cases in the United States every year. Pneumonia is more commonly seen in males and an increase in age of the patient increases the risk of death. “Other risks for pneumonia include lung cancer or tumors, COPD, and bronchiectasis. Smoking impairs resistance to infection. Alcohol or drug intoxication increases the risk of aspiration pneumonia with asphyxiation” (Capriotti, p449).

“Pneumonia is most commonly caused by inhalation of droplets containing bacteria or other pathogens. The droplets enter the upper airways and gain entry into the lung tissue. Pathogens adhere to respiratory epithelium and stimulate an inflammatory reaction. The acute inflammation spreads to the lower respiratory tract and alveoli. At the sites of inflammation, vasodilation occurs with attraction of neutrophils out of capillaries and into the air spaces. Neutrophils phagocytize microbes and kill them with reactive oxygen species, antimicrobial proteins, and degradative enzymes. There is an excessive stimulation of respiratory goblet cells that secrete mucus. Mucous and exudative edema accumulate between the alveoli and capillaries. The alveoli attempt to open and close against the purulent exudate; however, some cannot open” (Capriotti p449).

The patient admits to smoking 1 pack of cigarettes per day and drinking alcoholic beverages 3-5 times per week. According to the Mayo Clinic, “smoking damages your body’s

natural defenses against the bacteria and viruses that cause pneumonia.” Because the Pt. smokes often, his body has a weakened defense system against the bacteria or virus that caused his pneumonia. With the Pt. drinking 3-5 times a week that increases his risk of acquiring aspiration pneumonia.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J.P. (2016). *Pathophysiology: Introductory Concepts and Clinical Perspectives*. F.A. Davis Company.

Mayo Clinic (2018, March 13). Pneumonia. Retrieved from

<https://www.mayoclinic.org/diseases-conditions/pneumonia/symptoms-causes/syc-20354204>

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	Reason for Abnormal Value
RBC	3.8-5.3	2.7	*Unable to obtain	Pneumonia hinders optimal gas exchange which leads to decreased oxygenation. The role of RBC is to carry oxygen, low oxygen exchange=low RBC count. (Mayo Clinic, CBC).
Hgb	12.0-15.8	9.3	*	Pneumonia hinders optimal gas exchange which leads to decreased oxygenation. Hemoglobin is the oxygen-carrying protein in the RBC. Low oxygen exchange=low Hgb. (Mayo Clinic, CBC)
Hct	36-47%	28.2%	*	Hematocrit is the proportion of RBC to the plasma in your blood. If the RBC count is low the proportion of RBC to Plasma will decrease. (Mayo Clinic, CBC)

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Platelets	140-440	162	*	
WBC	4.0-12.0	16.1%	*	Pneumonia is an infection and the purpose of WBC is to fight infections. Infection present= increased WBC count. (Mayo Clinic, CBC)
Neutrophils	47-73%	93%	*	Neutrophils are important for fighting certain infections. Especially those caused by bacteria. Infection present=increased neutrophils. (Mayo Clinic, CBC).
Lymphocytes	18-42%	*	*	
Monocytes	4-12%	*	*	
Eosinophils	0.0-5.0%	*	*	
Bands		*	*	

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	128	*Unable to Obtain	Pt has history of chronic kidney disease. (RN.com)
K+	3.5-5.1	5.1	6.0	A cause of hyperkalemia is decreased output of potassium due to chronic or acute renal failure. Pt has a history of chronic kidney disease. (RN.com)
Cl-	98-107	*	*	
CO2	21-31	*	*	
Glucose	70-99	71	81	
BUN	7-25	44	52	BUN is the concentration of nitrogen within urea within the serum. It is filtered and reabsorbed along the length of the entire nephron. An intrarenal cause of BUN elevation is chronic renal dysfunction as with diabetes. The patient has a history of chronic

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				kidney disease and type II diabetes. (RN.com)
Creatinine	0.50-1	3.0	3.6	Creatinine is a by-product of muscle metabolism. A cause of creatinine elevation is decreased excretion due to a urinary tract obstruction or renal dysfunction. The patient has a history of chronic kidney disease and according to input/output there is little to no output which would increase the creatinine level. (RN.com)
Albumin	3.5-5.7	*	*	
Calcium	8.8-10.2	8.7	*	A cause of hypocalcemia is renal failure. Pt has a history of chronic kidney disease. (RN.com)
Mag	1.6-2.6	*	*	
Phosphate	2.6-4.5	*	*	
Bilirubin	0.2-0.8	2.8	*	Bilirubin is a substance made during the normal breakdown of RBC. If there is an increase in RBC breakdown, then there would be an increase in bilirubin. The Pt. has a decreased number of RBC, due to his pneumonia, which means there was an increase in the number of RBC broken down, therefore an increase in bilirubin. (Mayo Clinic, Bilirubin Test).
Alk Phos	34-104	*	*	

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	Light/Pale and clear			** No cultures completed on this Pt.**

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pH	4.5-7.2			
Specific Gravity	1.002-1.030			
Glucose	Negative			
Protein	Negative/ Trace			
Ketones	Negative			
WBC	Negative			
RBC	Negative			
Leukoesterase	Negative			

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				** No cultures completed on this Pt.**
Blood Culture	No Growth			
Sputum Culture	Negative			
Stool Culture	Negative			

Lab Correlations Reference (APA):

Mayo Clinic. (2018, December 19). Complete Blood Count (CBC). Retrieved from <https://www.mayoclinic.org/tests-procedures/complete-blood-count/about/pac-20384919>

Mayo Clinic. (2018, November 06). Bilirubin Test. Retrieved from <https://www.mayoclinic.org/tests-procedures/bilirubin/about/pac-20393041>

RN.com. (2005) Lab Value Interpretation for Nurses. *Chemistries and Renal Studies*. Retrieved from <https://lms.rn.com/getpdf.php/666.pdf>

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

- Chest x-ray: opacities greater in right lung (upper anterior lobe) than left lung.
 - o Impression/Findings: Consistent with Right Upper Lobe Pneumonia
- ECG: Atrial Fibrillation indicated

Current Medications (10 points, 2 points per completed med)

5 different medications must be completed

Medications (5 required)

Brand/Generic	Aspirin (ASA)	Lanoxin (Digoxin)	Advair (Fluticasone Propionate)	Gabapentin (Neurontin)	Glipizide (Glucotrol XL)
Dose	81mg	0.125mg	2 puffs	400mg	10mg
Frequency	Daily	Daily	Twice Daily (BID)	Three times Daily (TID)	Twice Daily (BID)
Route	Oral	Oral	Oral Inhalation	Oral	Oral
Classification	“NSAID (Anti-inflammatory, antiplatelet, antipyretic, nonopioid analgesic)” (Jones and Bartlett, p97).	“Cardiac glycoside, Antiarrhythmic, cardiotoxic” (Jones and Bartlett, p339).	Corticosteroid Antiasthmatic, Anti-inflammatory (Jones and Bartlett, p515-516).	1-amino-methyl cyclohexaneacetic acid, Anticonvulsant (Jones and Bartlett, p543).	Sulfonylurea, Antidiabetic (Jones and Bartlett, p558).
Mechanism of Action	“Blocks the activity of cyclooxygenase, the enzyme needed for prostaglandin synthesis. With blocking of cyclooxygenase and inhibition	“Increases the force and velocity of myocardial contraction, resulting in positive inotropic effects. Digoxin	“Inhibits cells involved in the inflammatory response of asthma” (Jones and Bartlett, p517).	“Gabapentin is structurally like GABA, the main inhibitory neurotransmitter in the brain. GABA inhibits the rapid firing of neurons associated with	“Stimulates insulin release from beta cells in pancreas. Glipizide also increases peripheral tissue sensitivity to insulin, either by increasing

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	of prostaglandins, inflammatory symptoms subside” (Jones and Bartlett, p98).	produces antiarrhythmic effects by decreasing the conduction rate and increasing the effective refractory period of the AV node” (Jones and Bartlett, p340).		seizures. It also may prevent exaggerated responses to painful stimuli and pain-related responses to a normally innocuous stimulus to account for its effectiveness in relieving postherpetic neuralgia and restless legs syndrome symptoms” (Jones and Bartlett, p544).	insulin binding to cellular receptors or by increasing the number of insulin receptors” (Jones and Bartlett, p558).
Reason Client Taking	Unknown	Pt has a history of Atrial Fibrillation.	Pt has a history of smoking	Pt has history of Type II Diabetes Mellitus.	Pt has history of Type II Diabetes Mellitus.
Contraindications (2)	Active bleeding or coagulation disorders; breastfeeding (Jones and Bartlett, p98).	“History or presence of digitalis toxicity or idiosyncratic reaction to digoxin or its components, ventricular fibrillation, ventricular tachycardia unless heart failure occurs unrelated to digoxin therapy” (Jones and Bartlett, p340).	Hypersensitivity to fluticasone or its components, or to milk proteins; Untreated nasal mucosal infection (Jones and Bartlett, p517).	“Hypersensitivity to gabapentin or its components” (Jones and Bartlett, p544).	Hypersensitivity to glipizide, sulfonylureas or their components; Ketoacidosis (Jones and Bartlett, p558).
Side Effects/Adverse Reactions (2)	RESP: Bronchospasm CNS: Confusion,	CV: Arrhythmias, heart block CNS:	RESP: pneumonia, wheezing SKIN:	RESP: Apnea, cough, dyspnea, pneumonia,	CV: Arrhythmias, edema, hypertension,

	CNS depression. (Jones and Bartlett, p98).	Confusion, depression, drowsiness, extreme weakness, headache, syncope (Jones and Bartlett, p341).	dermatitis, ecchymosis, pruritus, rash, urticarial (Jones and Bartlett, p517).	pseudocroup CV: Angina, hypertension, hypotension, murmur, palpitations, peripheral edema, peripheral vascular insufficiency, tachycardia, vasodilation (Jones and Bartlett, p544).	vasculitis RESP: Dyspnea (Jones and Bartlett, p559).
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Medications Reference (APA):

Jones and Bartlett. (2020). *Nurse’s Drug Handbook* (19th ed.). Jones and Bartlett Learning LLC.

Assessment

Physical Exam (18 points)

<p>GENERAL: Alertness: Orientation: Distress: Overall appearance:</p>	<p>Pt is awake and appears alert and oriented x3. Pt appears restless and displays signs of anxiety.</p>
<p>INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: . Braden Score: Drains present: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	<p>Pt has diabetic ulceration of the right foot and cannot feel the touch on his foot very well, especially up by the toes. Wound dressing is due to be changed. Patient has a 20-gauge in the left forearm with IV fluids of 0.9% sodium chloride at 100-milliliters per hour. Braden score unknown. Pt has decreased skin turgor and dry mucous membranes.</p>
<p>HEENT: Head/Neck: Ears: Eyes: Nose: Teeth:</p>	<p>Physical assessment of HEENT show head and neck are symmetrical, trachea is midline and without deviation, thyroid is nonpalpable, no noted nodules. Sclera is white, cornea is clear, conjunctiva is pink, and no visible drainage. PERRLA, red light reflex present, and EOMs intact. Auricle is moist and pink with no visible</p>

	<p>lesions, canal is clear with pearly grey TM. Septum is midline, turbinates are moist and pink, no visible bleeding or polyps. Sinuses are nontender. Tonsils are moist and pink, uvula is midline, soft palate rises and falls symmetrically. Teeth are good, oral mucosa is moist and pink without any visible lesions.</p>
<p>CARDIOVASCULAR: Heart sounds: S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses: Capillary refill: Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Location of Edema:</p>	<p>.Pt has a history of atrial fibrillation, S₁ varies in intensity. Rhythm is irregular. Irregular peripheral pulses are felt. There is no presence of edema or neck vein distention. Pt displays tachycardia.</p>
<p>RESPIRATORY: Accessory muscle use: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Breath Sounds: Location, character</p>	<p>Crackles were heard in lungs upon auscultation. O₂ saturation is 88% with 2L. Pt displays difficulty/labored breathing. Presence of nasal flaring and expiratory grunt, use of accessory muscles of respiration, decreased chest expansion due to pleuritic pain, dullness heard during percussion, and patient displays tachypnea. Increased vocal fremitus, egophony over area of consolidation, and decreased breath sounds was displayed.</p>
<p>GASTROINTESTINAL: Diet at home: Current Diet Height: Weight: Auscultation Bowel sounds: Last BM: Palpation: Pain, Mass etc.: Inspection: Distention: Incisions: Scars: Drains: Wounds: Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Size: Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p>	<p>Abdomen is soft, nontender, and no masses were felt. Bowel sounds are normoactive throughout. Patient states he has difficulty adhering to his diabetic management plan.</p>

<p>Type:</p>	
<p>GENITOURINARY: Color: Character: Quantity of urine: Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Inspection of genitals: Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type: Size:</p>	<p>Urine is yellow in color, clear, with no odor. Pt has not voided. No pain with urination. Pt is not on dialysis. Genitals appear to be within defined limits. No catheter present.</p>
<p>MUSCULOSKELETAL: Neurovascular status: ROM: Supportive devices: Strength: ADL Assistance: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Fall Risk: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Fall Score: Activity/Mobility Status: Independent (up ad lib) <input checked="" type="checkbox"/> Needs assistance with equipment <input type="checkbox"/> Needs support to stand and walk <input type="checkbox"/></p>	<p>Pt displays full ROM and does not use any supportive devices. Pt does not score as a fall risk, score 0. Patient can get up and move around as desired. Patient is independent and doesn't require any assistance getting up or walking.</p>
<p>NEUROLOGICAL: MAEW: Y <input type="checkbox"/> N <input type="checkbox"/> PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/> Orientation: Mental Status: Speech: Sensory: LOC:</p>	<p>Patient displays ROM in all extremities. Pupils are equal, reactive to light and accommodation. Strength is equal in all extremities throughout. Pt is AO x3. Pt speaks clearly, spontaneously, well-paced, and logically. Pt is calm and cooperates.</p>
<p>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):</p>	<p>Pt appears to have a developmental level that of an adult. Pt states he doesn't follow any religion. Pt is married and lives with his wife. Pt is independent at home in regards to ambulation and daily living.</p>

Swearingen, P.L., & Wright, J.D. (2019). *All-in-One Nursing Care Planning Resource* (5th ed).

Elsevier.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0400	164 bpm (irregular)	80/62	30	99.0°F (37.22°C)	88% RA to 2L

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0400	0: Pt stated no pain	None	None	None	None

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
0400: 1000mL	None
0600: 200mL	None
0800: 350mL	None
1000: 210mL	None
1100: 100mL	50mL
1330: 220mL	None

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
<ul style="list-style-type: none"> Include full nursing diagnosis with “related to” and “as evidenced by” 	<ul style="list-style-type: none"> Explain why the nursing diagnosis was chosen 		<ul style="list-style-type: none"> How did the patient/family respond to the nurse’s actions? Client response, status

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components			of goals and outcomes, modifications to plan.
<p>1. Impaired gas exchange related to altered oxygen supply as evidenced by decreased O₂ saturation (88%)</p>	<p>Patient states and displays difficulty and labored breathing</p>	<p>1.Provide oxygen. 2.Administer antibiotics within 6 hr of hospital admission and ongoing as prescribed.</p>	<p>Pt states understanding for the use of O₂. Patient verbalizes understanding for antibiotics.</p>
<p>2. Excess fluid volume related to compromised regulatory mechanisms as evidenced by decreased urine output (50mL).</p>	<p>Pt has a history of chronic kidney disease.</p>	<p>1. Closely assess and document intake and output. 2. Administer medications that promote diuresis as prescribed.</p>	<p>Pt states understanding for assessing his intake and output. Pt states understanding the need for diuretic medications.</p>

Other References (APA):

Swearingen, P.L., & Wright, J.D. (2019). *All-in-One Nursing Care Planning Resource* (5th ed). Elsevier.

Concept Map (20 Points)

Subjective Data

Pt complaining of difficulty breathing and shortness of breath.
Pt states this started last night while he was sleeping, "I woke up having difficulty breathing so I called 911"

Nursing Diagnosis/Outcomes

1. Impaired gas exchange related to altered oxygen supply as evidenced by decreased O₂ saturation (88%)
2. Excess fluid volume related to compromised regulatory mechanisms as evidenced by decreased urine output.

Objective Data

- Pneumonia
- Chest x-ray
 - Low O₂ saturation (88%)
 - Crackles heard in lungs upon auscultation.
 - Decreased RBC, Hgb, Hct.
 - Increased WBC, neutrophils.

Patient Information

- Date of admittance: 01/08/2020
- Initials: R.A.J.
- Age: 60-year-old
- Gender: Male
- Race: African American
- Occupation: Retired Engineer
- Marital Status: Married
- Allergies: **Sulfa: reaction hives**
- Code Status: Full Code
- Height: 72 inches (6 ft.)
- Weight: 104.5 kg (230 lb)

Nursing Interventions

- Provide oxygen.
- Administer antibiotics.

- Closely assess intake and output.
- Administer diuretic medications.

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