N441 Care Plan

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 02/01/2021	**Patient Initials** RL	**Age** 89 years old (09/17/1931)	**Gender** Male
Race/Ethnicity Caucasian	**Occupation** Retired chemical factory worker	**Marital Status** Married	**Allergies** lorazepam promethazine
Code Status Full	**Height** N/A	**Weight** 66.8 kg	

Medical History (5 Points)

Past Medical History:

RL has a past medical history that includes anemia, bilateral carotid artery stenosis, bradycardia, chronic kidney disease (CKD), chronic pain, chronic venous stasis, colostomy, depression, gastroesophageal reflux disease (GERD), hypercholesterolemia, hypertension (HTN), hypothyroidism, lumbar radiculopathy, myofascial pain, neuropathy, obstructive sleep apnea, spinal stenosis of lumbar region, and urinary retention.

Past Surgical History:

RL has the following surgical history:

- Colonoscopy with biopsy (2000); repeated in 2004 and 2005
- Insertion of implanted venous access port (2000); removed in 2001
- Repair of incisional hernia (2001, 2003, 2006, & 2009)
- Repair of paracolostomy hernia (2002)
- Partial resection of the colon (2010)
- Cholecystectomy (2011)
- Laminectomy

Family History:

- Father: rectal cancer
- Brother: heart disease
- Sister: heart disease

Social History (tobacco/alcohol/drugs):

RL was a former cigarette smoker and quit more than 30 days ago. He denied use of alcohol or illicit drugs.

Assistive Devices: RL uses a cane and walker with ambulation. He also uses a wheelchair when he is unable to walk.

Living Situation: RL lives at home with his wife in Arthur, IL.

Education Level: RL graduated high school.

Admission Assessment

Chief Complaint (2 points): General weakness with shortness of breath

History of present Illness (10 points):

The patient presented to the Emergency Department at Sarah Bush Lincoln on 02/01/2021 in respiratory distress and hypoxia. EMS put the patient on 15L of oxygen via nonrebreather en route to the hospital; EMS was able to keep the patient at 95% oxygen saturation. Upon arrival, the patient remained on 15L of oxygen. The ED provider ordered a CT of the chest, which revealed small bilateral pleural effusions with basilar atelectasis indicating that the patient has pneumonia.

The patient stated that he started experiencing shortness of breath on exertion two days before admission to the ED. He mentioned that he is on 2L of oxygen via the nasal cannula at home. Upon assessment, the patient denied any pain but started to show signs of ineffective breathing pattern as evidenced by anxiety and hyperventilation. The labored breathing of the

patient supported this statement. Assessment of the patient indicated that he was hypoxic as evidenced by acute confusion and declining oxygen saturation. The patient prefered to have the head of the bed elevated because it helps him breathe better. The patient was on a high-flow nasal cannula and was switched to BiPAP when he had increased shortness of breath.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Pneumonia

Secondary Diagnosis (if applicable): Hypoxia

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

Pathophysiology

Pneumonia is caused by inhaling droplets that contain causative agents (Capriotti & Frizzell, 2016). On most occasions, the respiratory tract deals with infectious pathogens with ease. In immunocompromised individuals, for instance, advanced age adults, pathogens can colonize the respiratory tract easier (Hinkle & Cheever, 2018). When an infectious agent slips past the immune system of immunocompromised individuals, it can adhere to the respiratory tissues, specifically in the alveoli (Capriotti & Frizzell, 2016). This event causes an inflammatory response due to the increased numbers of white blood cells, mostly neutrophils, to fight off the infection.

RL's lab results show a slight elevation in neutrophils at 82.9 (standard: 45.3-79). Additionally, the inflammation causes excessive stimulation of respiratory goblet cells, which results in excess production of mucus. Upon physical assessment and medication administration, there was a presence of hemoptysis. The excess mucus in the respiratory tract decreases gas

exchange in alveoli, resulting in shortness of breath and activity intolerance (Hinkle & Cheever, 2018). RL presented to the ED in respiratory distress and shortness of breath, leading to hypoxia.

Expected findings, signs & symptoms, patient correlation

Expected findings in pneumonia include a cough that may or may not be productive, fever and chills, chest pain - especially with deep breaths, dyspnea, hemoptysis (bloody sputum), crackles, and activity intolerance (Capriotti & Frizzell, 2016). A patient diagnosed with pneumonia may also present with a headache, abdominal pain, nausea, and vomiting (Capriotti & Frizzell, 2016). Tachypnea, tachycardia, cyanosis, and accessory muscle are signs and symptoms that a patient may also present with (Capriotti & Frizzell, 2016). RL presented to the ED at SBL in respiratory distress, shortness of breath, and hypoxia. A productive cough with hemoptysis is present. Upon physical examination, RL presented labored breathing with accessory muscle use on 40L of high flow oxygen. The student auscultated his lungs, which presented with crackles in the right lower lobe and diminished lung sounds in all other lung fields. The nursing staff (student and instructor) switched RL to a BiPAP due to an increase in shortness of breath.

Diagnostics, tests, and labs

The primary diagnostic test performed in patients with pneumonia is a chest x-ray (Hinkle & Cheever, 2018). The provider may order a CBC with differential, ABGs, and sputum culture (Capriotti & Frizzell, 2016). RL's chest x-ray was indicative of pneumonia showing small bilateral pleural effusions with basilar atelectasis. His CBC results showed an elevation in neutrophils at 82.9 (standard: 45.3-79). His ABG results showed a pH of 7.51, PaO2 of 25.4, PaCO2 of 103.0.

Treatment of the disease

The primary pharmacological treatment of pneumonia is antibiotics (Hinkle & Cheever, 2018). Alongside antibiotics, analgesics - for pain due to the increasing efforts of breathing, antipyretics - for the fever, and bronchodilators are also used (Hinkle & Cheever, 2018). A pneumococcal vaccine is also used as a preventative measure (Hinkle & Cheever, 2018). Patients with pneumonia may be prescribed oxygen therapy and IV fluids during their inpatient stay (Capriotti & Frizzell, 2016). The Emergency Department provider ordered 500 mg of azithromycin infused with normal saline. RL was also on 15 L of oxygen during his admitting assessment. In the CCU, the provider ordered 2,000 mg of ceftriaxone administered with 100 mL normal saline through an IV drip. He is also on 40 L of oxygen administered through a high flow nasal cannula. A BiPAP is available if RL experiences shortness of breath with the high flow nasal cannula.

Pathophysiology References (2) (APA):

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

Hinkle, J. L. & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer Health Lippincott Williams & Wilkins

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	3.9-5.0	2.52	2.39	Decreased levels of RBC is indicative of anemia (Capriotti & Frizzell, 2016). RL is anemic.
Hgb	12.0-15.5	7.9	7.5	Low hemoglobin levels is indicative of anemia (Capriotti & Frizzell, 2016). RL is anemic.

Hct	35-45%	22.8	21.6	Low hematocrit levels is indicative of low RBC count due to bleeding or anemia (Hinkle & Cheever, 2018). RL is anemic.
Platelets	150-500 K	318	291	Within Normal Limits
WBC	4.5-11 K	10	10.9	Within Normal Limits
Neutrophils	45.3-79%	78.4	82.9	An elevated neutrophil count is indicative of an infection (Capriotti & Frizzell, 2016). RL is in the CCU for pneumonia and complicated UTI.
Lymphocytes	11.8-45.9%	12.4	8.5	A decrease in lymphocyte count can indicate malnutrition, CKD, or an underlying illness, and the use of certain medications (Hinkle & Cheever, 2018). RL has a medical history of CKD. RL could also be experiencing malnutrition with an albumin level in the low normal limit - 3.6 (3.5-5.0).
Monocytes	4.4-12.0%	7.5	6.5	Within Normal Limits
Eosinophils	0.0-6.3%	1.4	1.7	Within Normal Limits
Bands	0.0-5.0%	N/A	N/A	Lab value 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	137	141	Within Normal Limits
K+	3.5-5.0	3.4	3.0	Hypokalemia can be indicative of CKD (Hinkle & Cheever, 2018). RL has CKD.
Cl-	98-108	102	105	Within Normal Limits
CO2	22-29	23	25	Within Normal Limits
Glucose	70-100	122	113	Nondiabetic patients taking medications to treat mental health issues can increase blood glucose levels (Jones & Bartlett Learning, 2019). RL takes 10 mg of citalopram daily for depression.
BUN	8-25	44	39	An elevated BUN can be indicative

				of a kidney problem (Hinkle & Cheever, 2018). RL has CKD.
Creatinine	0.6-1.2	2.17	2.10	An elevated creatinine can be indicative of a kidney problem (Hinkle & Cheever, 2018). RL has CKD.
Albumin	3.5-5.0	3.6	N/A	Within Normal Limits
Calcium	8.6-10.4	8.8	8.3	A decrease in calcium levels can be tied to problems that involve kidney functions (Hinkle & Cheever, 2018). RL has CKD.
Mag	1.6-2.4	1.7	N/A	Within Normal Limits
Phosphate	2.5-4.5	N/A	N/A	Lab value N/A
Bilirubin	0.0-1.2	0.6	N/A	Within Normal Limits
Alk Phos	35-105	76	N/A	Within Normal Limits
AST	0-35	13	N/A	Within Normal Limits
ALT	24-36	N/A	N/A	Lab value N/A
Amylase	30-110	N/A	N/A	Lab value N/A
Lipase	12-70	N/A	N/A	Lab value N/A
Lactic Acid	0.5-2.2	1.0	N/A	Within Normal Limits
Troponin	0-0.4	0.036	0.035	Within Normal Limits
CK-MB	0-4.9	4.88	4.44	Within Normal Limits
Total CK	22-198	25	24	Within Normal Limits

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	0.86-1.14	N/A	N/A	Lab value N/A
PT	11.9-15	N/A	N/A	Lab value N/A
PTT	25-40	N/A	N/A	Lab value N/A
D-Dimer	<0.50	1.46	N/A	An elevated D-dimer can indicate that there is a presence of a blood clot in the body (Capriotti & Frizzell, 2016). RL has a history of bilateral carotid artery stenosis, chronic venous stasis, a former smoker, and hypercholesterolemia - several risk factors that increase the chances of developing a thrombus.
BNP	0-99	675	N/A	BNP is released when the muscles of the heart undergo excessive stretching. Stretching can be caused by chronic hypertension that causes cardiomegaly (LVH) in the heart (Capriotti & Frizzell, 2016). RL has hypertension (HTN).
HDL	40-80	N/A	N/A	Lab value N/A
LDL	85-125	N/A	N/A	Lab value N/A
Cholesterol	<170	N/A	N/A	Lab value N/A
Triglycerides	50-150	N/A	N/A	Lab value N/A
Hgb A1c	<6%	N/A	N/A	Lab value N/A
TSH	0.5-5	N/A	N/A	Lab value 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	Light orange Turbid	N/A	Darker colors and turbidity in urine can be indicative of dehydration or a kidney problem (Hinkle & Cheever, 2018). RL has CKD.
pH	5.0-8.0	6.5	N/A	Within Normal Limits

Specific Gravity	1.005-1.034	1.009	N/A	Within Normal Limits
Glucose	Normal	Normal	N/A	Within Normal Limits
Protein	Negative	1+	N/A	Proteinuria is indicative of a kidney disease (Capriotti & Frizzell, 2016). RL has CKD.
Ketones	Negative	Negative	N/A	Within Normal Limits
WBC	<5	>100	N/A	Elevation of WBC in urine may be indicative of presence of a urinary tract infection (Capriotti & Frizzell, 2016). RL is being treated for a UTI.
RBC	0-4	>100	N/A	Elevation of RBC in urine may be caused by inflammation or injury to the urinary tract (Hinkle & Cheever, 2018). RL has CKD, a history of urinary retention, and a chronic foley catheter.
Leukoesterase	Negative	4+	N/A	An elevation in leukoesterase can indicate an infection in the urinary tract (Capriotti & Frizzell, 2016). RL is being treated for a complicated UTI.

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	7.51	Elevation in pH indicates that the patient is in alkalosis (Hinkle & Cheever, 2018). Looking at RL's PaO2 and PaCO2, his alkalosis is respiratory based. During assessment, RL's respiratory rate was elevated, one at 42 breaths per minute and another at 46 breaths per minute. RL was hyperventilating due to the increase in shortness of breath. Hyperventilation causes the lungs to expel a lot of CO2 and increase O2, which could ultimately put a patient in respiratory alkalosis

				(Hinkle & Cheever, 2018).
PaO2	80-100	N/A	103.0	An elevated PaO2 indicates that the patient is in respiratory alkalosis (Hinkle & Cheever, 2018). During initial assessment, RL's respiratory rate was 42 breaths per minute. The student assessed RL for a second set of vitals and his respiratory rate was at 46 breaths per minute.
PaCO2	35-45	N/A	25.4	A decrease in PaCO2 indicates that the patient is in respiratory alkalosis (Hinkle & Cheever, 2018). During initial assessment, RL's respiratory rate was 42 breaths per minute. The student assessed RL for a second set of vitals and his respiratory rate was at 46 breaths per minute.
HCO3	22-26	N/A	22.8	Within Normal Limits
SaO2	95-100	N/A	98.7	Within Normal Limits

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	Pending	Results were not available during clinical
Blood Culture	Negative	N/A	Pending	Results were not available during clinical
Sputum Culture	Negative	N/A	N/A	Has not been collected during clinical
Stool Culture	Negative	N/A	N/A	N/A

Lab Correlations Reference (APA):

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

Hinkle, J. L. & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer Health Lippincott Williams & Wilkins

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

1) EKG (ECG): This diagnostic test allows for the visualization of the heart's electrical activity to rule out any cardiac problems (Hinkle & Cheever, 2018).
2) CT angiogram of the chest: This diagnostic test allows for the visualization of the chest cavity that includes the heart and lung fields (Hinkle & Cheever, 2018).

Diagnostic Test Correlation (5 points):

1) EKG (ECG): The ED provider ordered an EKG to rule out any cardiac abnormalities that may indicate that the patient may be experiencing a cardiac issue that is related to the respiratory distress. The EKG showed that the patient had bradycardia with PVCs.
2) CT angiogram of the chest: The ED provider ordered a CT angiogram of the chest to visualize the chest cavity to help determine what is causing the patient respiratory distress. The results came back with small bilateral effusions with basilar atelectasis.

Diagnostic Test Reference (APA):

Hinkle, J. L. & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer Health Lippincott Williams & Wilkins

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

Home Medications (5 required)

Brand/Generic	**Norvasc** amlodipine	**Pepcid** famotidine	**Celexa** citalopram	**Synthroid** levothyroxine	**Ditropan** oxybutynin
Dose	10 mg 1 tablet	20 mg 1 tablet	10 mg 1 tablet	100 mcg 1 tablet	5 mg 1 tablet
Frequency	Daily	BID	Daily	Daily	BID

Route	PO	PO	PO	PO	PO
Classification	Calcium Channel Blocker Antihypertensive	H2 blocker	SSRI Antidepressant	Thyroid hormone	Anticholinergic Antispasmodic
Mechanism of Action	Decreases intracellular calcium level, inhibiting smooth-muscle cell contractions and relaxing coronary and vascular smooth muscles, decreasing peripheral vascular resistance, and reducing blood pressure.	Inhibit the action of histamine at the H2-receptor site located primarily in gastric parietal cells, resulting in inhibition of gastric acid secretion.	Blocks serotonin reuptake by adrenergic nerves, which normally release this neurotransmitter from their storage sites when activated by a nerve impulse.	Replaces endogenous thyroid hormone.	Acts as a cholinergic receptor antagonist; antagonizes bladder smooth muscle contractions.
Reason Client Taking	Hypertension (HTN)	GERD	Depression	Hypothyroidism	Chronic foley catheter
Contraindications (2)	hypersensitivity; hypotension	IV administration is given over a specific time frame; other medications may be less effective because of increased stomach pH.	Congenital long QT syndrome; hypersensitivity to citalopram or its components	Acute MI; uncorrected adrenal insufficiency	Difficulty swallowing; hypersensitivity
Side Effects/Adverse Reactions (2)	Dyspnea; peripheral edema	Confusion; hallucinations	Anaphylaxis; angioedema	Hyperthyroidism; myxedema coma	Confusion; blurred vision
Nursing Considerations (2)	Use cautiously in patients with heart failure, severe aortic stenosis, or impaired renal function; Assess the patient frequently for chest pain when starting or	Use caution in patients with hematological disorders because this medication can cause aplastic anemia; monitor the patient's liver function because this medication	Monitor appetite and nutrition intake prior to administration; monitor CBC, liver function, and renal function.	Caution in elderly with CV disease; educate pt that this is a lifelong treatment	Anticholinergics work against the "feed/breed/pee/poo" branch of the autonomic nervous system; know that this medication may cause confusion.

	increasing the dose.	may cause drug-induced hepatitis.			
Key Nursing Assessment(s) Prior to Administration	Check blood pressure before administration, hold if the patient is hypotensive compared to their baseline.	Assess the client for signs of bone marrow suppression i.e. bleeding, purpura, and sore throat before administration.	Assess for suicidal tendencies in the first few weeks of administration.	Monitor glucose, weight, and increasing physical and mental energy.	Obtain baseline vital signs and history of anaphylactic reactions.
Client Teaching needs (2)	Take your missed dose as soon as possible and take the next one in 24 hours; Check your blood pressure before and after taking the medication for hypotension.	Smoking interferes with the action of this medication; avoid foods that may cause an increase in GI irritation.	May cause drowsiness, dizziness, impaired judgement, blurred vision, and dry mouth; avoid alcohol.	Take the medication in the morning because it may cause insomnia if taken at night; report excessive weight loss.	Swallow the tablets whole; report any swelling of lips or tongue immediately.

Hospital Medications (5 required)

Brand/Generic	**Zithromax** azithromycin	**Rocephin** ceftriaxone	**Decadron** dexamethasone	**Lovenox** enoxaparin	**Protonix** pantoprazole
Dose	500 mg	2000 mg	4 mg 1 mL	30 mg 0.3 mL	40 mg 10 mL
Frequency	Q24H	Q24H	Daily	Daily	Daily
Route	IV piggy	IV piggy	IV push	subcutaneous	IV push
Classification	macrolide antibiotic	cephalosporin antibacterial; anti-infective	synthetic corticosteroid	LMWH; anticoagulant/antithrombotic agent	Antiulcer; PPI
Mechanism of Action	Inhibits RNA synthesis resulting in inhibition of replication.	Binds to the bacterial cell wall membrane, causing cell death.	binds to intracellular glucocorticoid receptors and suppresses inflammatory and immune response.	Potentiates the inhibitory effect of antithrombin on factor Xa and thrombin.	Interferes with gastric acid secretion by inhibiting the proton pump in gastric parietal cells.
Reason Client	Pneumonia	Pneumonia	Pneumonia	Prevention of	GERD

Taking		Complicated UTI		DVT/PE	
Contraindications (2)	Hypersensitivity; anaphylaxis	Allergy to cephalosporins; Preexisting allergy to penicillins	Hypersensitivity; systemic fungal infection	Hypersensitivity and bleeding disorders.	Rilpivirine containing therapy; hypersensitivity to pantoprazole
Side Effects/Adverse Reactions (2)	anemia; ototoxicity	Phlebitis at IV site; superinfection	Depression; bradycardia	Bleeding; anemia	Hyperglycemia; dyspnea
Nursing Considerations (2)	Should not be used in pt with known QT prolongation; obtain culture and sensitivity before administration.	Let the medication infuse over 30 minutes; Obtain history to determine previous use of and reactions to penicillins	Use caution in patients with hypertension or renal insufficiency; administer with food to decrease GI discomfort	Ensure protamine sulfate is available before administration; know that **love**nox is administered in the "**love** handles"	Push the medication over 2 minutes; Dilute the medication with 10mL of Normal Saline
Key Nursing Assessment(s) Prior to Administration	Culture and sensitivity tests should be performed prior to starting therapy.	Ensure that the patient does not have allergies to cephalosporins before administration.	Assess the patient's blood pressure before administration; assess the patient's renal function.	Monitor CBC with platelets and D-dimer. Assess the patient for signs of unusual bleeding before administration.	Monitor liver enzymes, watch for digestive problems with foods and medications.
Client Teaching needs (2)	Report blood in stool; report if you are allergic to this medication.	This medication is related to penicillin, tell your provider if you have allergies to penicillin; notify your provider if diarrhea occurs especially if it has pus, blood, or mucus.	Do not store the drug in damp or hot places; avoid alcohol because it increases your risk of developing a GI bleed.	Report any unusual bleeding or bruising to your healthcare provider; use soft toothbrush and electric razor.	Avoid alcohol, NSAIDS, smoking, caffeine and foods that cause gastric distress; report abdominal pain, diarrhea, black tarry stools to your provider immediately.

Medications Reference (APA):

Jones & Bartlett Learning. (2019). *Nurses drug handbook.*

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient was awake and oriented to person and situation (x2). The patient responded to the questions asked appropriately. RL looked well nourished and in a great mood. Initially, RL was sitting calmly and comfortably in his bed, but started experiencing shortness of breath with the high-flow nasal cannula. He was put on the BiPAP.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	Braden Score: 16 (mild skin risk) His skin was appropriate in color for race, intact, warm, and dry to touch with loose skin turgor. Presence of age spots noted. The patient had scar tissue build up in his lower abdomen from past surgical procedures. There were no rashes, bruises, or wounds noted or reported by the patient. No drains are present.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	The patient's head was normocephalic and midline with no deviations. RL's neck showed the trachea in midline. RL exhibited PERRLA and the six cardinal fields of gaze. The tympanic membrane is pearly, grey in color, and intact bilaterally, however, RL is hard of hearing. There was no drainage in the patient's ears. RL's nose showed no deviated septum. His nose showed equal turbinates, bilaterally. The skin around his nostrils are intact and shows no signs of breakdown caused by the nasal cannula or BiPAP. His oral mucosa was pink, moist, and intact with no teeth present. RL has dentures. The tongue was pink in color. No abnormalities noted.
CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:**	S1 and S2 heard with irregular rhythm. His cardiac strip shows a heart rate of 60 beats/min and shows sinus arrhythmia with PVCs. Radial pulses present with irregular rhythm graded at 2+, bilaterally. Pedal pulses present with irregular

Capillary refill: **Neck Vein Distention: Y ☐ N ☐** **Edema Y ☐ N ☐** **Location of Edema:**	rhythm graded at 2+, bilaterally. Capillary refill is less than 3 seconds. No JVD or edema noted.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** **Placement (cm to lip):** **Respiration rate:** **FiO2:** **Total volume (TV):** **PEEP:** **VAP prevention measures:**	RL had labored breathing with use of accessory muscles, bilaterally. Presence of coarse crackles in the right lower lobe noted. Diminished breath sounds in the right upper, right middle, left upper, and left lower lobe noted. Upon initial assessment, his respirations were 42 breaths/min with an O2 saturation of 96% on 40L via high-flow nasal cannula. During the second assessment his respirations were at 46 breaths/min with an O2 saturation of 84% on high-flow nasal cannula, RL was switched to BiPAP. There is no ET tube in place. **VAP prevention measures** - Elevation of the head of the bed (30-45). - Daily "sedation vacation" and assessment of readiness to extubate. - Peptic ulcer disease prophylaxis. - Deep vein thrombosis prophylaxis. - Daily oral care with chlorhexidine. - Aseptic suction technique. (Hinkle & Cheever, 2018)
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 ☐**	Ht: N/A Wt: 66.8 kg Last BM: Colostomy in place The patient is on a heart healthy diet at home; the provider switched RL to NPO status during clinical assessment. His abdomen was soft and nondistended with active bowel sounds in the right upper and right lower quadrant after auscultating for 1 minute. The abdomen was round and moved with respirations. The patient had scar build in the lower abdomen from past surgical procedures. There was no organomegaly noted. No

Size: **Feeding tubes/PEG tube Y ☐ N ☐** **Type:**	distention, incision, drain, or wound noted. No feeding tubes in use. No mass palpated. No discomfort reported.
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:** **CAUTI prevention measures:**	The patient has a 16 F chronic Foley Catheter. Upon assessment, the patient's urine was clear and dark yellow in the foley catheter collection bag. The patient's output was 1,200 mL during clinical. The genitals were intact with no abnormalities or discoloration noted. Upon inspection during catheter care, the catheter was intact and in place. No distention of the bladder noted. The patient did not report any changes in voiding or dysuria. Patient was not on dialysis. **CAUTI prevention measures** - Use strict aseptic technique during insertion of the smallest catheter possible. - Securing the catheter to prevent movement. - Frequently inspecting urine color, odor, and consistency. - Performing meticulous daily perineal care with soap and water. - Maintain a closed system. - Follow the manufacturer's instructions when using the port to collect urine specimens. (Hinkle & Cheever, 2018)
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 Score: 60 (high fall risk) The patient was able to perform active range of motion in both upper and lower extremities, bilaterally. He exhibited equal strength in all four extremities. During hospital stay, the patient is bed bound. RL needs assistance with activities of daily living. RL uses a cane/walker at home for ambulation. He also uses a wheelchair when he cannot walk.
NEUROLOGICAL (2 points):	The patient MAEW and PERRLA. His strength

MAEW: Y ☐ N☐ **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	is equal in both arms and legs, bilaterally. RL speaks English as his primary language and responded appropriately for his age. He is alert and oriented x2. His sensory and judgement were intact. He was slightly confused due to hypoxia. No change in LOC.
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):**	RL is a Protestant. He lives in Arthur, IL. with his wife. He has a daughter who visits often. RL suffers from depression. His developmental level was appropriate for age with a slight confusion due to hypoxia.

References

Hinkle, J. L. & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer Health Lippincott Williams & Wilkins

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0800	60	170/70	42	37.0	96% (high-flow nasal cannula)
0900	77	176/148	46	37.0	84% (high-flow nasal cannula to BiPAP)

Vital Sign Trends/Correlation:

At 0800, RL's blood pressure was elevated at 170/70 and a respiratory rate of 42 breaths per minute. His other vital signs were within normal limits. At 0900, RL's diastolic blood pressure increased so the student and instructor proceeded with medication administration. RL's provider put in an order for a status change to NPO so his antihypertensive medication

(amlodipine 10 mg) was not administered. During 0900 assessment, RL started to experience shortness of breath and his O2 saturation declined to 84% on high-flow nasal cannula. His respiratory rate also increased to 46 breaths per minute. The student and instructor doing the assessment switched RL to the BiPAP to help him breathe better.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0900	Numeric	None	0	None	No interventions needed
1100	Numeric	None	0	None	No interventions needed

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:**	20 gauge saline lock in the left hand started on 02/01/2021. The IV is patent with no signs of erythema, drainage, or infiltration. The dressing is clean, dry, and intact. 20 gauge saline lock in the left wrist started on 02/01/2021. The IV is patent with no signs of erythema, drainage, or infiltration. The dressing is clean, dry, and intact. The patient is receiving 2,000 mg of ceftriaxone in 100 mL of Normal Saline connected to a saline drip of 50 mL/hr.
Other Lines (PICC, Port, central line, etc.)	
Type: **Size:** **Location:** **Date of insertion:** **Patency:** **Signs of erythema, drainage, etc.:** **Dressing assessment:** **Date on dressing:** **CUROS caps in place: Y ☐ N ☐**	**CLABSI prevention measures** - Maintain sterile technique during dressing changes. - Always perform hand hygiene before manipulating or accessing the line. - Wear clean gloves before accessing the line. - Scrub the hub for 15-30 seconds using chlorhexidine.

CLABSI prevention measures:	- Use chlorhexidine-containing dressings in patients older than 2 months. - Consider using antiseptic-containing port protectors to cover connectors. (Hinkle & Cheever, 2018)

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
100 mL normal saline **350 mL** for 7 hours of clinical - IV infusion of 50 mL/hr	**1,200 mL** in foley catheter collection bag

Nursing Care

Summary of Care (2 points)

Overview of care:

RL is an 89 year-old male who lives in Arthur, IL. with his wife. He presented to the Emergency Department at Sarah Bush Lincoln on 2/1/2021 with respiratory distress and hypoxia. RL was diagnosed with pneumonia and urinary tract infection by the admitting provider. RL was admitted to the critical care unit for treatment and observation of his conditions.

Procedures/testing done:

RL had no procedures or testing done during clinical assessment.

Complaints/Issues:

RL experienced shortness of breath while on high-flow oxygen. His oxygen saturation declined from 96% to 84%, to which he was switched to BiPAP to assist him in breathing better.

Vital signs (stable/unstable):

During initial clinical assessment, RL had high blood pressure, 170/70, and elevated respirations, 42 bpm, with oxygen saturation at 96% on high-flow nasal cannula. A second set of vitals were taken at 0900 during medication administration and his blood pressure increased to 176/148,

respirations to 46 breaths per minute, and a decrease in oxygen saturation at 84%. At this point RL was experiencing shortness of breath and he was switched to BiPAP.

Tolerating diet, activity, etc.:

RL had no complaints with his diet in the hospital. He did not have an appetite during initial assessment as evidenced by his untouched breakfast tray on his bedside table. RL was switched to NPO status by the provider before 0900 medication administration. RL is on bedrest and is a high risk for falls.

Physician notifications:

The physician did not come in to assess RL during clinical assessment.

Future plans for patient:

The physician is waiting to hear from RL's family to discuss future care.

Discharge Planning (2 points)

Discharge location:

RL will be discharged to a rehab facility until he gains his strength to live back at home in Arthur, IL.

Home health needs (if applicable):

RL does not have any home health needs at this time.

Equipment needs (if applicable):

RL does not have any equipment needs at this time.

Follow up plan:

RL is suggested to follow-up with his primary healthcare provider one to two weeks after being discharged.

Education needs:

RL will need education on preventing further recurrences of pneumonia and UTI. He will also be needing teaching with caring for his chronic foley catheter.

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. Impaired gas exchange due to pneumonia as evidenced by shortness of breath and respiratory alkalosis.	The patient was admitted to the CCU due to respiratory distress and hypoxia.	1. Administer prescribed oxygen. 2. Promote optimal resting position (Semi/High Fowler's).	Goal: The goal for RL is to have him be able to maintain optimal oxygen saturation without needing high-flow oxygen. RL was put on the BiPAP due to a decline in oxygen saturation to 84%.
2. Ineffective breathing pattern due to pneumonia as evidenced by use of accessory muscles and elevated respiratory rate.	The patient was using a lot of abdominal breathing (accessory muscle use) for breathing.	1. Promote optimal breathing pattern. 2. Administer prescribed medications to treat pneumonia.	Goal: The goal for RL is to educate him on performing optimal breathing patterns. The student and instructor assisted RL with deep breathing when he experienced shortness of breath on high-flow oxygen.
3. Risk for infection related to advanced age as evidenced by pneumonia and urinary tract infection.	The patient is being treated for pneumonia and urinary tract infection.	1. Administer prescribed antibiotic treatment. 2. Use proper aseptic technique when providing care for the patient.	Goal: The goal for RL is to treat his current infections (pneumonia and UTI). Catheter care was performed to ensure that the occurrence of CAUTI is minimized.

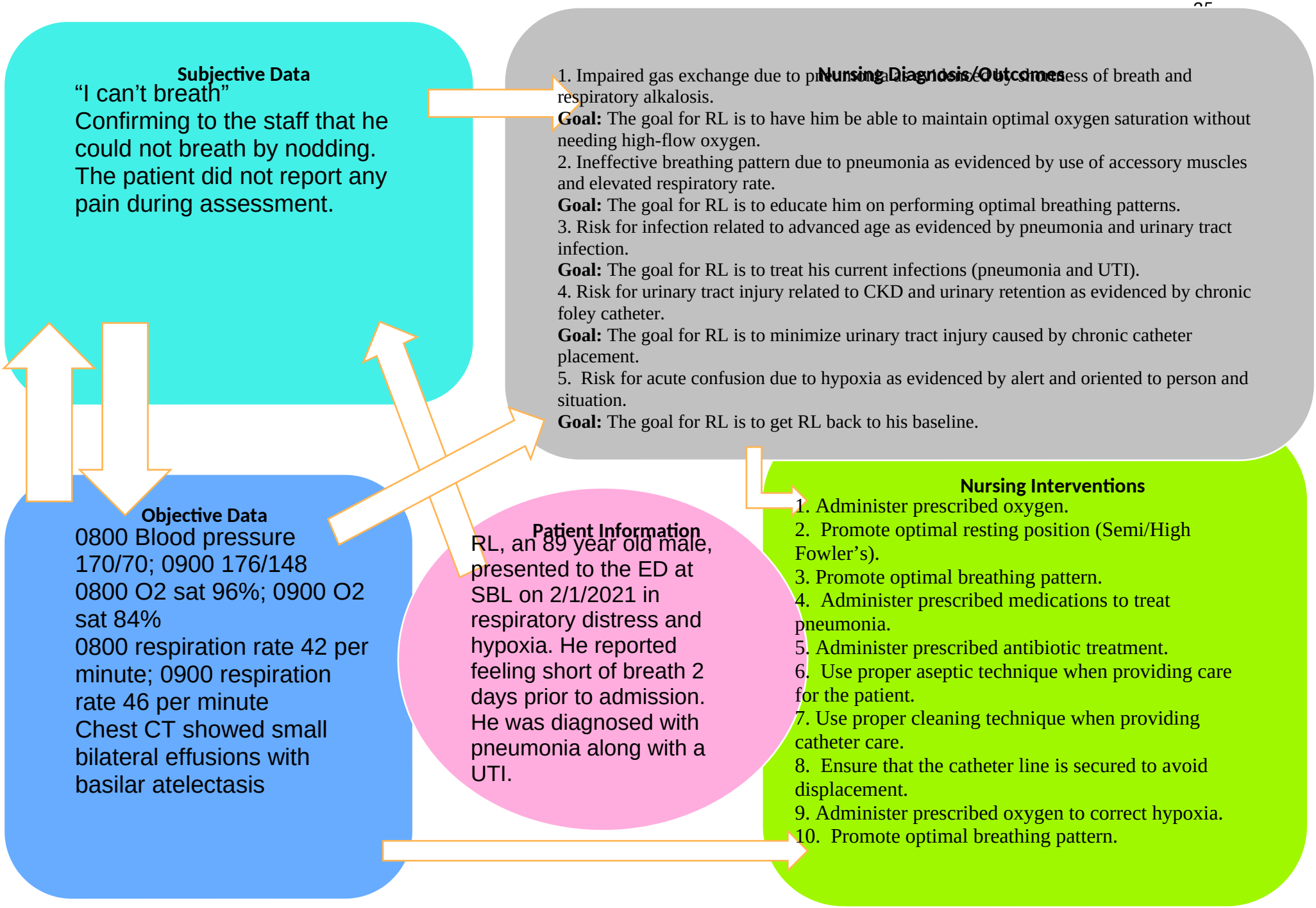
4. Risk for urinary tract injury related to CKD and urinary retention as evidenced by chronic foley catheter.	The patient has a chronic foley catheter in place.	1. Use proper cleaning technique when providing catheter care. 2. Ensure that the catheter line is secured to avoid displacement.	Goal: The goal for RL is to minimize urinary tract injury caused by chronic catheter placement. Ensure that the catheter is secured into place and minimize risks of displacement.
5. Risk for acute confusion due to hypoxia as evidenced by alert and oriented to person and situation.	The patient was showing signs of confusion compared to documented baseline during initial assessment by the student.	1. Administer prescribed oxygen to correct hypoxia. 2. Promote optimal breathing pattern.	Goal: The goal for RL is to get RL back to his baseline. RL was switched to BiPAP from high-flow cannula when he experienced shortness of breath.

Other References (APA):

Carpenito, L. J. (2017). *Handbook of nursing diagnosis*. Philadelphia: Wolters Kluwer.

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. Elsevier.

Concept Map (20 Points):


Subjective Data
"I can't breath"
Confirming to the staff that he could not breath by nodding.
The patient did not report any pain during assessment.
Nursing Diagnosis/Outcomes
1. Impaired gas exchange due to pneumonia as evidenced by shortness of breath and respiratory alkalosis.
Goal: The goal for RL is to have him be able to maintain optimal oxygen saturation without needing high-flow oxygen.
2. Ineffective breathing pattern due to pneumonia as evidenced by use of accessory muscles and elevated respiratory rate.
Goal: The goal for RL is to educate him on performing optimal breathing patterns.
3. Risk for infection related to advanced age as evidenced by pneumonia and urinary tract infection.
Goal: The goal for RL is to treat his current infections (pneumonia and UTI).
4. Risk for urinary tract injury related to CKD and urinary retention as evidenced by chronic foley catheter.
Goal: The goal for RL is to minimize urinary tract injury caused by chronic catheter placement.
5. Risk for acute confusion due to hypoxia as evidenced by alert and oriented to person and situation.
Goal: The goal for RL is to get RL back to his baseline.
Objective Data
0800 Blood pressure 170/70; 0900 176/148
0800 O2 sat 96%; 0900 O2 sat 84%
0800 respiration rate 42 per minute; 0900 respiration rate 46 per minute
Chest CT showed small bilateral effusions with basilar atelectasis
Patient Information
RL, an 89 year old male, presented to the ED at SBL on 2/1/2021 in respiratory distress and hypoxia. He reported feeling short of breath 2 days prior to admission. He was diagnosed with pneumonia along with a UTI.
Nursing Interventions
1. Administer prescribed oxygen.
2. Promote optimal resting position (Semi/High Fowler's).
3. Promote optimal breathing pattern.
4. Administer prescribed medications to treat pneumonia.
5. Administer prescribed antibiotic treatment.
6. Use proper aseptic technique when providing care for the patient.
7. Use proper cleaning technique when providing catheter care.
8. Ensure that the catheter line is secured to avoid displacement.
9. Administer prescribed oxygen to correct hypoxia.
10. Promote optimal breathing pattern.