N441 Care Plan

Lakeview College of Nursing

Angel Roby

Demographics (3 points)

Date of Admission	**Client Initials**	**Age**	**Gender**
2/19/2023	G.D.	80 years old	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White/Caucasian	Retired	Married	Heparin and Nicotine
Code Status	**Height**	**Weight**	
Full code	177.8 cm	62.5 kg.	

Medical History (5 Points)

Past Medical History: Hypertension, hyperlipidemia, COPD, anxiety, atrial fibrillation, thrombocytosis

Past Surgical History: N/A - Patient could not provide surgical history and no record is shown in the chart.

Family History: N/A - Patient could not provide family history and no record is shown in the chart.

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): The patient does not have any history of tobacco, alcohol, or drugs. The patient could not provide social history upon arrival due to loss of consciousness.

Assistive Devices: N/A

Living Situation: Charleston Rehab

Education Level: Unknown - Patient could not provide education level upon arrival due to loss of consciousness.

Admission Assessment

Chief Complaint (2 points): Altered LOC, fever, tachycardia, and shortness of breath

History of Present Illness – OLD CARTS (10 points): The patient is an 80 year old male brought to the emergency room on 2/19/2023 for altered level of consciousness, fever,

tachycardia, shortness of breath and low oxygen saturation. The patient is nonverbal and had Covid-19 in December and January that ended up becoming a bacterial infection. In the emergency department the patient presented with hypoxia, hypotension, and started on IVF and was eventually intubated because the patient failed to oxygenate on the BiPaP.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Pneumonia

Secondary Diagnosis (if applicable): Pulmonary embolism

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

Pneumonia is inflammation of the lung tissue in which alveolar air spaces fill with purulent, inflammatory cells and fibrin (Capriotti, 2020). Infection by bacteria or viruses is the most common cause. However, inhalation of chemicals, aspiration of contents from the oropharynx or stomach, or infection by other infectious agents such as rickettsiae and fungi may occur (Capriotti, 2020). The patient previously had Covid-19 at the beginning of the year, which probably caused pneumonia to manifest. Pneumonia is most commonly caused by inhaling droplets containing bacteria or other pathogens (Capriotti, 2020). The droplets enter the upper airways and then enter the lung tissue. Pathogens adhere to the respiratory epithelium and stimulate an inflammatory reaction (Capriotti, 2020). The acute inflammation spreads to the lower respiratory tract and alveoli. At the sites of inflammation, vasodilation occurs, and neutrophils travel out of capillaries into the air spaces (Capriotti, 2020).

The clinical presentation of bacterial pneumonia usually starts with a sudden onset of symptoms. Cough may or may not be productive of sputum; fever; and chills are usually initial manifestations (Capriotti, 2020). The patient came into the emergency room with an altered level

of consciousness, fever, tachycardia, and shortness of breath. Pleuritic chest pain is pain with deep breaths; dyspnea; hemoptysis; and decreased exercise tolerance as the disorder continues. Other nonspecific symptoms include myalgias, headache, abdominal pain, nausea, and vomiting (Capriotti, 2020). On physical examination, the patient will likely demonstrate fever, tachypnea, use of accessory muscles with breathing, tachycardia, and possibly cyanosis (Hinkle et al., 2022). As mentioned, the patient showed all the signs and symptoms listed when admitted to the emergency department.

A chest x-ray is the most important diagnostic study in diagnosing pneumonia (Hinkle et al., 2022). The patient got a chest x-ray that showed signs of pneumonia in the left lung. CBC with differential will suggest either a bacterial or viral infection. Pulse oximetry can demonstrate oxygenation. The patient was immediately on pulse oximetry to determine his oxygen saturation levels. Sputum culture and sensitivity can exhibit organism and antibiotic susceptibility (Hinkle et al., 2022). The patient had a sputum culture done that suggested bacteria.

Antibiotic therapy and patient oxygenation are critical in treating pneumonia (Capriotti, 2020). Fowler's position and oxygen via nasal cannula or mask treat pneumonia. Analgesia, antipyretics, and bronchodilators may be needed. The patient was admitted to the critical care unit and intubated. The nurse administered antibiotics and an antipyretic to help with the signs and symptoms of pneumonia.

Pathophysiology References (2) (APA):

Capriotti, T.M. (2020). *David advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

Hinkle, J.L., Cheever, K.H., & Overbaugh, K. (2022). *Brunner & Suddarth's textbook of medical-surgical nursing* (15th ed.). Wolters Kluwer.

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	3.80 – 5.41 x 10^6/mcL	3.49 x 10^6/mcL	2.83 x 10^6/mcL	CBC is done to check whether or not your immune system is fighting an infection. Swelling around the alveoli is replaced with strands of fibrous tissue, and your lung tissue becomes dry and firm (Hinkle et al., 2022). In this stage, your alveoli are not able to move oxygen and other gasses into your bloodstream as well (Hinkle et al., 2022). The red blood cells that carry oxygen and other nutrients can burst and leak, giving your lung tissue a pink or red appearance under a microscope (Hinkle et al., 2022).
Hgb	13 – 17 g/dL	9 g/dL	7.4 g/dL	CBC is done to check whether or not your immune system is fighting an infection. Swelling around the alveoli is replaced with strands of fibrous tissue, and your lung tissue becomes dry and firm (Hinkle et al., 2022). In this stage, your alveoli are not able to move oxygen and other gasses into your bloodstream as well (Hinkle et al., 2022). The red blood cells that carry oxygen and other nutrients can burst and leak, giving your lung tissue a pink or red appearance under a microscope (Hinkle et al., 2022).
Hct	38.1 – 48.9 (%)	28.5 (%)	22.8 (%)	CBC is done to check whether or not your immune system is fighting an infection. Swelling around the alveoli is replaced with strands of fibrous tissue, and your lung tissue becomes dry and firm (Hinkle et al., 2022). In this stage, your alveoli are not able to move oxygen and other gasses into your bloodstream as well (Hinkle et al., 2022). The red blood cells that

				carry oxygen and other nutrients can burst and leak, giving your lung tissue a pink or red appearance under a microscope (Hinkle et al., 2022).
Platelets	149 – 393 K/mcL	626 K/mcL	446 K/mcL	CBC is done to check whether or not your immune system is fighting an infection. Also, the patient has a history of thrombocytosis.
WBC	4.0 – 11.7 K/mcL	20.5 K/mcL	18.4 K/mcL	CBC is done to check whether or not your immune system is fighting an infection. A high white blood count indicates an infection is present. The patient was diagnosed with left lung pneumonia following the CT of his chest when admitted.
Neutrophils	2.4 – 8.4 x 10^3/mcL	16.8 x 10^3/mcL	16.6 x 10^3/mcL	CBC is done to check whether or not your immune system is fighting an infection. A high neutrophil count suggests that the body is trying to fight off an infection present. As mentioned above, the patient was diagnosed with pneumonia.
Lymphocytes	0.8 – 3.7 x 10^3/mcL	1.8 x 10^3/mcL	0.8 x 10^3/mcL	N/A
Monocytes	0.3 – 1.1 x 10^3/mcL	1.1 x 10^3/mcL	1.1 x 10^3/mcL	N/A
Eosinophils	0 – 0.5 x 10^3/mcL	N/A	N/A	N/A
Bands	10 – 16 (%)	N/A	N/A	N/A

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	135 – 145 mmol/L	145 mmol/L	138 mmol/L	N/A
K+	3.4 – 5.1 mmol/L	5.1 mmol/L	3.9 mmol/L	N/A
Cl-	98 – 107 mmol/L	110 mmol/L	104 mmol/L	Since the patient's body was in distress when he was first admitted, electrolyte balances could be altered. Hypercholeremia often happens when there is something

				else wrong with the body. Hypercholeremia could also happen if a patient has a high fever and causes sweating and dehydration (Hinkle et al., 2022).
CO2	21 – 31 mmol/L	30 mmol/L	23 mmol/L	N/A
Glucose	74 – 109 mg/dL	228 mg/dL	290 mg/dL	Hyperglycemia, or high blood glucose, occurs when there is too much sugar in the blood (Hinkle et al., 2022). This happens when your body has too little insulin (the hormone that transports glucose into the blood), or if your body can't use insulin properly (Hinkle et al., 2022).
BUN	7 – 25 mg/dL	42 mg/dL	64 mg/dL	The patient is currently taking cephalosporin and vancomycin that can create an increase in BUN levels (Hinkle et al., 2022).
Creatinine	0.7 – 1.30 mg/dL	0.74 mg/dL	1.31 mg/dL	As mentioned before, the patient is currently taking antibiotics that can alter kidney function levels. In this case, the vancomycin is causing a rise in creatinine levels (Hinkle et al., 2022).
Albumin	3.5 – 5.2 g/dL	2.7 g/dL	2.1 g/dL	Low albumin levels can indicate inflammation (Hinkle et al., 2022). In this case, since the patient was diagnosed with pneumonia, it would explain why the albumin levels are low.
Calcium	8.6 – 10.3 mg/dL	9.3 mg/dL	8.7 mg/dL	N/A
Mag	1.6 – 2.2 mg/dL	2.1 mg/dL	2.0 mg/dL	N/A
Phosphate	2.5 – 4.5 mg/dL	N/A	N/A	N/A
Bilirubin	0.3 – 1.0 mg/dL	0.6 mg/dL	0.3 mg/dL	N/A
Alk Phos	34 – 104 units/L	72 units/L	62 units/L	N/A
AST	13 – 39 units/L	22 units/L	14 units/L	N/A

ALT	7 – 52 units/L	19 units/L	15 units/L	N/A
Amylase	100 – 300 units/L	N/A	N/A	N/A
Lipase	0 – 60 units/L	N/A	N/A	N/A
Lactic Acid	0.4 – 2.0 mg/dL	N/A	N/A	N/A
Troponin	0.000 – 0.030 ng/mL	N/A	N/A	N/A
CK-MB	96 – 100 (%)	N/A	N/A	N/A
Total CK	36 – 160 units/L	N/A	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	< or = 1.1	N/A	1.98	A high INR value shows an increase in the time necessary to complete the clotting process (Hinkle et al., 2022). The patient had a pulmonary embolism on the left lung that was diagnosed by the CT of the chest.
PT	11 – 13.5 seconds	N/A	22.5 seconds	When the PT is high, it takes longer for the blood to clot (17 seconds, for example). This usually happens because the liver is not making the right amount of blood clotting proteins, so the clotting process takes longer (Hinkle et al., 2022).
PTT	23.0 – 32.4 seconds	N/A	N/A	N/A
D-Dimer	< 250 ng/mL	N/A	N/A	N/A
BNP	< 100 pg/mL	N/A	N/A	N/A
HDL	23 – 92 mg/dL	N/A	N/A	N/A

LDL	< 130 mg/dL	N/A	N/A	N/A
Cholesterol	< 199 mg/dL	N/A	N/A	N/A
Triglycerides	0 – 149 mg/dL	N/A	N/A	N/A
Hgb A1c	< or = 6.4 %	N/A	N/A	N/A
TSH	0.45 – 5.33 mlU/mL	N/A	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	Yellow, clear	N/A	Yellow	N/A
pH	5.0 – 9.0	N/A	5	N/A
Specific Gravity	1.005 – 1.025	N/A	1.030	The first and most common reason for an increase in urine specific gravity is dehydration (Hinkle et al., 2022). The patient had a fever when he was first admitted which could cause dehydration because of the diaphoresis.
Glucose	Negative	N/A	30	Glucose in the urine can also indicate signs of dehydration (Hinkle et al., 2022).
Protein	Negative	N/A	1+	Proteinuria can also indicate signs of dehydration (Hinkle et al., 2022).
Ketones	Negative	N/A	Trace	Ketones in the urine is a sign that your body is using fat for energy instead of using glucose because not enough insulin is available to use glucose for energy (Hinkle et al., 2022).
WBC	Negative	N/A	Negative	N/A
RBC	Negative	N/A	Negative	N/A
Leukoesterase	Negative	N/A	Negative	N/A

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	7.35 – 7.45	N/A	7.44	N/A
PaO2	80 – 100 mmHg	N/A	67.1 mmHg	If a person's PaO2 level is less than 80 mmHg, it indicates that he or she is not obtaining enough oxygen (Hinkle et al., 2022). The patient is not getting enough oxygen due to the pneumonia.
PaCO2	35 – 45 mmHg	N/A	35.5 mmHg	N/A
HCO3	21 – 28 mEq/L	N/A	24.2 mEq/L	N/A
SaO2	95 – 100 (%)	N/A	96.3 (%)	N/A

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative	N/A	Negative	N/A
Blood Culture	Negative	Negative	N/A	N/A
Sputum Culture	Negative	Positive	N/A	Staph aureus was found in the patient's sputum. It may signify a severe necrotising pneumonia in an immunocompromised or post-influenza patient (Hinkle et al., 2022).
Stool Culture	Negative	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Hinkle, J.L., Cheever, K.H., & Overbaugh, K. (2022). *Brunner & Suddarth's textbook of medical-surgical nursing* (15th ed.). Wolters Kluwer.

Sarah Bush Lincoln Health Center (2022). *Laboratory results.* Sarah Bush Lincoln Health Center.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

EKG (2/19/2023): Sinus tachy with premature atrial complexes, incomplete right bundle block, ST/T wave abnormality.

X-ray of chest (2/19/2023): Left lung pneumonia with left lung pulmonary embolism

X-ray of chest ET tube placement (2/19/2023): Interal placement of an endotracheal tube with tip overlying the mid-thoracic area.

X-ray of chest (2/21/2023): ET tube 6.8 cm. above the carina, left sided central line in place, consolidation in the left mid/lower lung and trace of pulmonary embolism

Diagnostic Test Correlation (5 points):

EKG: An electrocardiogram (ECG) is a recording of the electrical activity of the heart that can be measured from certain points on the body (Capriotti, 2020). Electrodes can be placed on the skin, and electrical current will project a pattern on a graph depicting the phases of resting potential, depolarization, plateau, and repolarization of the heart (Capriotti, 2020). Monitoring the heart rhythm is important especially since the patient came into the emergency department with tachycardia and has a history of atrial fibrillation.

X-ray of chest: A chest x-ray is the most important diagnostic study in diagnosing pneumonia (Capriotti, 2020). A chest x-ray shows consolidation in the region of pneumonia and can also indicate any signs of congestion (Capriotti, 2020).

Diagnostic Test Reference (1) (APA):

Capriotti, T.M. (2020). *David advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

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

Home Medications (5 required)

Brand/Generic	Eliquis/Apixaban	Lipitor/ Atorvastatin	Lopressor/ Metoprolol	Zoloft/ Sertraline	Lanoxin/Digoxin
Dose	5 mg	40 mg	100 mg	50 mg	125 mcg
Frequency	BID	Once daily	BID	Once daily	Once daily
Route	Oral	Oral	Oral	Oral	Oral
Classification	Pharmacologic: Xa inhibitor Therapeutic: Anticoagulant (Jones & Bartlett, 2020)	Pharmacologic: HMG-CoA reductase Therapeutic: Antihyperlipidemic (Jones & Bartlett, 2020).	Pharmacologic: Beta blocker Therapeutic: Antianginal, antihypertensive (Jones & Bartlett, 2020).	Pharmacologic: SSRI Therapeutic: Antianxiety, antidepressant, antipanic (Jones & Bartlett, 2020).	Pharmacologic: Cardiac glycoside Therapeutic: Antiarrhythmic, cardiotonic (Jones & Bartlett, 2020).

Mechanism of Action	Indirectly inhibits thrombin reduced platelet aggregation by inhibiting free clot-bound Xa and prothrombinase activity, it prevents thrombin generation and thrombus development (Jones & Bartlett, 2020).	Lowers plasma cholesterol and lipoprotein levels by inhibiting HMG-CoA in the liver by decreasing LDL production (Jones & Bartlett, 2020).	Blocks impaired beta receptors in the heart resulting in decreased cardiac excitability, cardiac output, and myocardial oxygen demand (Jones & Bartlett, 2020).	Inhibits reuptake of the neurotransmitter serotonin by CNS neurons, thereby increasing the amount of serotonin available in nerve synapses (Jones & Bartlett, 2020).	Increases the force and velocity of myocardial contraction, resulting in positive inotropic effects. Digoxin produces antiarrhythmic effects by decreasing the conduction rate and increasing the effective refractory period of the AV node (Jones & Bartlett, 2020).
Reason Client Taking	Thromboembolism prevention	Hyperlipidemia	Hypertension	Anxiety	Arrhythmia
Contraindications (2)	Active bleeding Hepatic impairment (Jones & Bartlett, 2020).	Active liver disease Hypersensitivity to the medication (Jones & Bartlett, 2020).	Second or third degree heart block Cardiogenic shock (Jones & Bartlett, 2020).	Use with MAOIs Hypersensitivity to the medication Concurrent use of disulfiram (Jones & Bartlett, 2020).	Ventricular fibrillation Ventricular tachycardia (Jones & Bartlett, 2020).
Side Effects/Adverse Reactions (2)	Anemia Hemorrhage (Jones & Bartlett, 2020).	Arrhythmias Hypoglycemia (Jones & Bartlett, 2020).	Diarrhea Peripheral edema (Jones & Bartlett, 2020).	Nausea Agitation (Jones & Bartlett, 2020).	Dizziness Headache (Jones & Bartlett, 2020).
Nursing Considerations (2)	For a patient with a nasogastric tube, crush tablet and suspend 60 mL of 5% dextrose and water or plain water and immediately administer through the nasogastric tube	Know that atorvastatin should not be used in patients taking cyclosporine, gemfibrozil, tipranavir plus ritonavir, or	Assess ECG because they may be at risk for AV block Know that if dosage exceeds 400 mg daily,	Be aware that this medication should not be given to patients with bradycardia, hypokalemia or	Take patient's apical pulse before giving each dose and notify prescriber if it's below 60 beats/minute Be aware that because digoxin has

	Be aware that if the medication is discontinued prematurely and adequate alternative anticoagulation is not present, the risk of thrombosis increases (Jones & Bartlett, 2020).	telaprevir because of high risk for rhabdomyolysis with acute renal failure Expect to measure liver function tests to be performed before atorvastatin therapy starts (Jones & Bartlett, 2020).	patient should be monitored for bronchospasm and dyspnea because it compatible blocks beta 2 adrenergic receptors in bronchial and vascular smooth muscles (Jones & Bartlett, 2020).	hypomagnesemia. Monitor patient closely for serotonin syndrome such as agitation, coma, diarrhea, hallucinations and more (Jones & Bartlett, 2020).	a narrow therapeutic index and interacts with different drugs, monitoring of serum digoxin levels is important when others drugs are prescribed (Jones & Bartlett, 2020).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	CBC Liver labs (AST, ALT, Bilirubin) Monitor closely for bleeding (Jones & Bartlett, 2020).	Monitor transaminase level and obtain lipid levels within 2-4 weeks of the time of first time administration of the medication (Jones & Bartlett, 2020).	Monitor heart rhythm and heart rate Make sure when discontinuing, to taper the drug (Jones & Bartlett, 2020).	Liver labs (AST, ALT, Bilirubin) and sodium because of chances of hyponatremia (Jones & Bartlett, 2020).	Monitor for signs and symptoms of digoxin toxicity and monitor electrolytes and serum creatinine (Jones & Bartlett, 2020).
Client Teaching needs (2)	If missed dose, take as soon as possible on the same day then resume twice daily Tell the patient if he is unable to swallow whole tablets to crush tablet and mix with apple juice or water or mix with applesauce and take immediately (Jones & Bartlett, 2020).	Report unexplained muscle pain and multiple drug interactions to check Tell the patient to take drug at the same time each day to maintain its effects (Jones & Bartlett, 2020).	Avoid operating vehicles or engaging in tasks that require alertness Do not discontinue the medication abruptly (Jones & Bartlett, 2020).	Advise patients that the drug may cause mild pupillary dilation, which may lead to an episode of acute closure glaucoma. Encourage patient to have an eye exam before starting therapy	Emphasize the importance of taking digoxin exactly as prescribed. Warn about possible toxicity from taking too much decreased effectiveness from taking too little Instruct the patient to take digoxin at the same time each day to help with compliance (Jones & Bartlett,

				Advise patient to avoid hazardous activities until drug's CNS effects are known (Jones & Bartlett, 2020).	2020).

Hospital Medications (5 required)

Brand/Generic	Firvanq/Vancomycin	Luminal/ Phenobarbital	Yupelri/ Revefenacin	Maxipime/ Cefepime	Cortef/ Hydrocortisone
Dose	1,000 mg/200mL	65 mg	175 mcg	2 g	50 mg
Frequency	Q24H	Q8H	Once daily	Q8H	Q6H
Route	Iv piggyback	IV push	NEB	IV piggyback	IV push
Classification	Pharmacologic: glycopeptide Therapeutic: Antibiotic (Jones & Bartlett, 2020).	Pharmacologic: Barbiturate Therapeutic: Anticonvulsant, sedative-hypnotic (Jones & Bartlett, 2020).	Pharmacologic: Anticholinergic Therapeutic: Bronchodilator (Jones & Bartlett, 2020).	Pharmacologic: Cephalosporin Therapeutic: Antibiotic (Jones & Bartlett, 2020).	Pharmacologic: Glucocorticoid Therapeutic: Adrenocortical replacement, anti-inflammatory (Jones & Bartlett, 2020).
Mechanism of Action	Produces bactericidal effects by inhibiting bacterial wall synthesis and may alter cell membrane	CNS depressant sedation is produced through depression of	Inhibits muscarinic receptor M3 in smooth muscles of	Interferes with bacterial cell wall synthesis by inhibiting the final step	Inhibits monocyte and neutrophil accumulation at inflammation sites and suppresses their

	permeability (Jones & Bartlett, 2020).	the sensory cortex, lowering motor activity (Jones & Bartlett, 2020).	the airways to produce bronchodilation (Jones & Bartlett, 2020).	in the cross-linking of peptidoglycan strands (Jones & Bartlett, 2020).	bactericidal and phagocytic activity (Jones & Bartlett, 2020).
Reason Client Taking	MRSA	Sedative	COPD	Pneumonia	Pneumonia
Contraindications (2)	Hypersensitivity to corn or corn products when given with dextrose solutions Hypersensitivity (Jones & Bartlett, 2020).	Alcoholism Uncontrolled diabetes (Jones & Bartlett, 2020).	Hypersensitivity (Jones & Bartlett, 2020).	Allergy to cephalosporins and hypersensitivity (Jones & Bartlett, 2020).	Hypersensitivity Idiopathic thrombocytopenic purpura (Jones & Bartlett, 2020).
Side Effects/Adverse Reactions (2)	Nausea Abdominal pain (Jones & Bartlett, 2020).	Somnolence Inebriation (Jones & Bartlett, 2020).	Cough Hypertension (Jones & Bartlett, 2020).	Increased ALT level Diarrhea (Jones & Bartlett, 2020).	Increased intracranial pressure Arrhythmias (Jones & Bartlett, 2020).
Nursing Considerations (2)	Rapid delivery may cause hypotension or transient “red man syndrome” characterized by chills, fainting, fever, flushing, nausea, and tachycardia Observe IV transfusion site for evidence of tenderness and thrombophlebitis (Jones & Bartlett, 2020).	Know that because the drug can cause respiratory depression, respiratory rate and depth should be assessed before use For IV use, monitor blood pressure. Anticipate increased risk of hypotension, even at recommended rate (Jones & Bartlett, 2020).	Be aware that this medication should not be initiated in patients during acutely deteriorating or potentially life-threatening episodes of COPD Use cautiously in patients with urinary retention, because it may worsen the	Use cautiously in patients with impaired renal function For IV infusion, reconstitute using guidelines. Give over 30 minutes (Jones & Bartlett, 2020).	Give daily dose of hydrocortisone in morning to mimic normal peak in adrenocortical secretion of corticosteroids Be aware that high-dose therapy shouldn’t be given for longer than 48 hours. Be alert for depression and psychotic episodes. (Jones & Bartlett, 2020).

			condition. Monitor patients for signs and symptoms (Jones & Bartlett, 2020).		
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Trough blood levels Liver function (ALT, ALT, Bilirubin) Check CBC results and BUN and creatinine levels during therapy (Jones & Bartlett, 2020).	Monitor blood pressure, respirations, cardiac function, renal function, and hepatic function (Jones & Bartlett, 2020).	Monitor patient for paradoxical bronchospasm that may become life-threatening (Jones & Bartlett, 2020).	Obtain culture and sensitivity test results if possible and as ordered, before giving drug Assess bowel pattern daily; severe diarrhea may indicate pseudomembranous colitis (Jones & Bartlett, 2020).	Monitor blood pressure, electrolyte levels, andweight regularly during therapy (Jones & Bartlett, 2020).
Client Teaching needs (2)	Report signs and symptoms of C-diff Complete the entire course of medication (Jones & Bartlett, 2020).	Caution patient about possible drowsiness and reduced alertness. Advise the patient to avoid potentially hazardous activities until drug's CNS is known Urge patient to avoid alcohol (Jones & Bartlett, 2020).	Inform patient that this medication is not meant to relieve acute symptoms of COPD and extra doses should never be used for this purpose Teach patient how to administer	Tell patient to immediately report severe diarrhea even if it occurs as late as 2 or more months after the last dose was taken Instruct patient and caregiver to immediately seek emergency care for any change in mental status,	Advise patients to take a daily dose at 9 a.m. Instruct patient to take tablets with food or milk (Jones & Bartlett, 2020).

			drug using a standard jet nebulizer. (Jones & Bartlett, 2020).	development of seizure activity, or sudden jerking movements (Jones & Bartlett, 2020).	

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2020). *2021 Nurse's drug handbook* (20th ed.). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient is A/O x0 and is not oriented to self, place, time, and situation. The patient is not in distress at this time. The patient's overall appearance is within expected range during this time.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N■** **Type:**	The patient's skin is slightly pale, warm, and dry. Patient's skin turgor is loose. The patient does not have any rashes or bruises, but the patient has unstageable pressure ulcers on the left heel, right foot, and buttock. The patient does not have any drains at this moment. The patient's Braden score is 12 which is considered high risk for pressure ulcers.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	The patient's head is normocephalic and symmetric. The patient's ears are equal and show no signs of excessive cerumen. The patient's hearing could not be tested at this time because the patient is intubated. The patient's pupils are slightly constricted and barely react to light. The patient's nose is midline and is dry and patent in the nares. The patient does not have any

	abnormalities on their teeth. The patient's mucous membranes are moist and pink.
CARDIOVASCULAR: **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:**	The S1 and S2 are present with no signs of S3, S4, or murmurs. Radial pulses are 2+ bilaterally . The dorsalis pedis pulses at 1+ bilaterally and are weak. The capillary refill is also within expected range with less than 3 seconds on the upper extremities, specifically the fingers. The patient isn't showing any signs of neck vein distention. The patient does not show any signs of edema at this time. The patient's EKG shows atrial fibrillation.
RESPIRATORY: **Accessory muscle use: Y ■ N ☐** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** 7.5 **Placement (cm to lip):** 24 cm **Respiration rate:** 20 breaths/min **FiO2:** 30 **Total volume (TV):** 400 **PEEP:** 8 **VAP prevention measures:**	Airway is patent with no signs of change in the clinical course. Breathing is clear on auscultation and equal bilaterally on auscultation in all lobes anteriorly and posteriorly. However, the patient is breathing 50 breaths/min despite the ventilator being set to be 20 breaths/min. The patient uses accessory muscles while breathing. The size of the ET tube is 7.5. The placement is set at 24 cm to the lip. The respiration rate is set to 20 breaths/min. The FiO2 is set at 30. The total volume is set at 400. The PEEP is set at 8. The VAP prevention measures utilized are ensuring suction and oral care every 2 hours.
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 ☐ N ■** **Nasogastric: Y ☐ N ■** **Size:** **Feeding tubes/PEG tube Y ■ N ☐** **Type:** G-tube	Patient's diet at home is pureed. Patient's current diet at the hospital is tube feeding at 80 mL for 12 hours in the evening. The patient's height is 177.8 cm. The patient's weight is 62.5 kg. Upon auscultation, the bowel sounds are active in all four quadrants. The patient's last bowel movement was 2/20/2023. The abdomen is soft and nontender and shows no signs of abnormalities, distention, wounds, or scars. The patient has a G-tube placed and shows signs of slight redness, but no purulent drainage is present. The patient does not have any drains at this moment. The patient does not have an ostomy bag or NG tube.

GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ■** **Inspection of genitals:** **Catheter: Y ■ N ☐** **Type:** Chronic foley catheter **Size:** 16 french **CAUTI prevention measures:** Catheter care, ensuring that the tubing is not coiled, green alcohol cap on port	The patient's urine is yellow, clear, and with no odor. The patient voided 420 mL of urine during this clinical course. The patient can't verbalize any pain when urinating. The patient is not on dialysis and the genitals were not inspected during this clinical course. The patient has a chronic foley catheter in place. The chronic foley catheter is a 16 french and to prevent CAUTI, the nurse ensured that catheter care was getting done, the tubing did not become coiled, and placed a green alcohol cap on the port.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ■** **Fall Risk: Y ■ N☐** **Fall Score: 50** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	The patient's neurovascular status is within normal limits. The patient is currently not conscious and I was not able to test if the patient can move his extremities. The patient can't report any paresthesia or paralysis during this clinical course. However, a paralytic was administered. The patient's fall score is 50 which is considered medium risk. The patient is not able to walk or be mobile during this time because the patient is intubated and is not conscious.
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	The patient is currently intubated and could not move his upper and lower extremities during this clinical course. When I moved the extremities, it moved freely with no signs of stiffness. The patient's pupils are constricted and slightly react to light. The patient is A/O x0. The patient's speech or sensory skills could not be tested at this time because the patient is intubated. The patient does not have any signs of consciousness.
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):**	The patient did not state any coping methods at this time. Patient's developmental level is integrity vs. despair. The patient did not state a religion at this time. The patient currently lives at Charleston Rehab.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0900	80 bpm	108/57 mmHg	21 breaths/min	36.5 C	90% ventilation
1245	79 bpm	108/57 mmHg	30 breaths/min	36.6 C	89% ventilation

Vital Sign Trends/Correlation: The patient's respirations and oxygen level has worsened during this clinical course. The pulse, blood pressure and temperature has been stable.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 18 G **Location of IV:** Left upper arm **Date on IV:** 2/20/2023 **Patency of IV:** Patent **Signs of erythema, drainage, etc.:** No signs	Premix Dextrose 5% Dexmedetomidine Fentanyl Propofol Norepinephrine

of erythema or drainage **IV dressing assessment:** Dry, intact, patent	
Other Lines (PICC, Port, central line, etc.)	
Type: PICC **Size:** 18 french **Location:** Right upper arm **Date of insertion:** 2/20/2023 **Patency:** Flushing, good blood return, patent **Signs of erythema, drainage, etc.:** No signs of erythema or drainage **Dressing assessment:** Dry, intact, patent **Date on dressing:** 2/20/2023 **CUROS caps in place: Y ☐ N ☐** **CLABSI prevention measures:** Flushing, and checks	N/A

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
Propofol: 110.07 mL Norepinephrine: 43.2 mL Fentanyl: 140.68 mL Normal saline: 116.03 mL Vancomycin: 161.6 mL Dextrose: 100.2 mL Dexmedetomidine: 57.8 mL Tube feeding: 60 mL Lansoprazole: 10 mL Total: 799.7 mL	Urine: 420 mL Stool: 0x

Nursing Care

Summary of Care (2 points)

Overview of care: The patient got his vitals done at 0900 and 1245 got his daily medications around 0900. The patient was not reacting to the sedatives or paralytics administered at this time. The doctor requested a CT of his brain to rule out a silent stroke. At this time, the doctor does not know why the patient is not reacting to the paralytics. The patient got oral care and was turned every 2 hours.

Procedures/testing done: The patient got a CT of his brain done during this clinical course.

Complaints/Issues: N/A

Vital signs (stable/unstable): The patient's respirations and oxygen levels worsened during this clinical course. The rest of the vitals were stable and did not change.

Tolerating diet, activity, etc.: The patient is tolerating the diet well and showed good aspiration of stomach contents. The patient could not participate in activity.

Physician notifications: N/A

Future plans for client: The patient will continue to be monitored on the ventilation. The doctor will collaborate with respiratory to determine what the best course of action is at this time.

Discharge Planning (2 points)

Discharge location: Newman Rehab for antibiotics, Charleston Rehab permanently.

Home health needs (if applicable): N/A

Equipment needs (if applicable): The patient will need a walker or cane

Follow up plan: Discharge plans are unclear at this time.

Education needs: Discharge plans are unclear at this time.

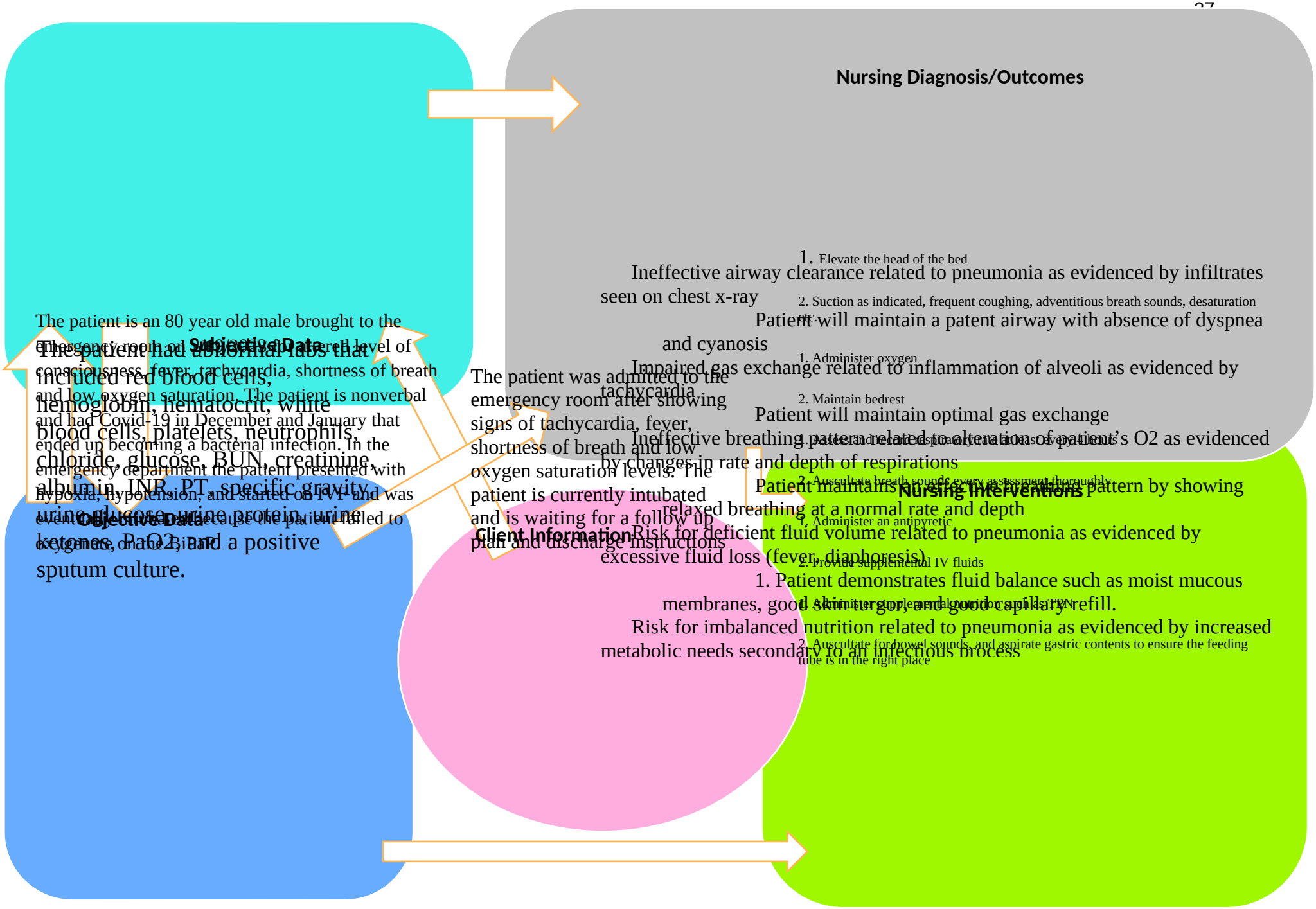
Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis ● Include full nursing diagnosis with "related to" and "as evidenced by" components ● Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** ● Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** ● How did the client/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan.
1. Ineffective airway clearance related to pneumonia as evidenced by infiltrates seen on chest x-ray	The patient has pneumonia and is at risk for having a compromised airway	1. Elevate the head of the bed 2. Suction as indicated, frequent coughing, adventitious breath sounds, desaturation etc.	1. Patient will maintain a patent airway with absence of dyspnea and cyanosis	The patient's family was not present during this clinical course, but the patient's saturation level has improved since he was admitted. Although the oxygen saturation is not where the nurse wants it to be, the patient's cyanosis and adventitious breath sounds have improved.
2. Impaired gas exchange related to inflammation of alveoli as	The patient came in with tachycardia and other signs and	1. Administer oxygen 2. Maintain bedrest	1. Patient will maintain optimal gas exchange	The patient was admitted to the critical care unit following intubation. The healthcare team has been administering

evidenced by tachycardia	symptoms that related to impaired gas exchange, the patient's CT of the chest proved that inflammation was present caused by pneumonia.			antibiotics and administering oxygen to ensure that the patient's gas exchange improves. The patient has been showing signs of improvement but as mentioned above, it is not where the nurse wants the patient to be.
3. Ineffective breathing pattern related to alteration of patient's O2 as evidenced by changes in rate and depth of respirations	The patient's respiration rate has not met the goal of the ventilator.	1. Assess and record respiratory rate at least every 4 hours **2**. Auscultate breath sounds every assessment thoroughly	1. Patient maintains an effective breathing pattern by showing relaxed breathing at a normal rate and depth	The patient's nurse and I ensured that the patient's assessment was mostly focused on his respiratory system. The patient does not have any adventitious breath sounds, but is still sometimes not reaching the respiration goal on the ventilator. The respiratory team came in to adjust the ventilator settings and the patient's respirations slightly improved.
4. Risk for deficient fluid volume related to pneumonia as evidenced by excessive fluid loss (fever, diaphoresis)	The patient was admitted to the emergency room with signs and symptoms of fever, tachycardia, and diaphoresis and showed signs of dehydration	1. Administer an antipyretic 2. Provide supplemental IV fluids	1. Patient demonstrates fluid balance such as moist mucous membranes, good skin turgor, and good capillary refill.	During the patient's assessment the patient had moist mucous membranes, good skin turgor, and good capillary refill. The patient is also getting supplemental IV fluids that have increased the patient's hydration.
5. Risk for imbalanced nutrition related to pneumonia as evidenced by increased metabolic needs secondary to an infectious process	The patient is not able to get nutrition orally and has to be put on supplemental nutrition a different way.	1. Administer supplemental nutrition such as TPN 2. Auscultate for bowel sounds, and aspirate gastric contents to ensure the feeding tube is in the right place	1. Patient maintains/regains desired body weight	The patient is currently on a feeding tube that is giving supplemental nutrition due to his intubated status. The patient's gastric contents were aspirated to ensure proper placement.

Other References (APA):

Concept Map (20 Points):


Nursing Diagnosis/Outcomes
Ineffective airway clearance related to pneumonia as evidenced by infiltrates seen on chest x-ray
Patient will maintain a patent airway with absence of dyspnea and cyanosis
Impaired gas exchange related to inflammation of alveoli as evidenced by tachycardia
Patient will maintain optimal gas exchange
Ineffective breathing pattern related to alteration of patient's O2 as evidenced by changes in rate and depth of respirations
Patient maintains an effective breathing pattern by showing relaxed breathing at a normal rate and depth
Risk for deficient fluid volume related to pneumonia as evidenced by excessive fluid loss (fever, diaphoresis)
1. Patient demonstrates fluid balance such as moist mucous membranes, good skin turgor, and good capillary refill.
Risk for imbalanced nutrition related to pneumonia as evidenced by increased metabolic needs secondary to an infectious process
1. Elevate the head of the bed
2. Suction as indicated, frequent coughing, adventitious breath sounds, desaturation etc.
1. Administer oxygen
2. Maintain bedrest
1. Assess and record respiratory rate and depth every shift
2. Auscultate breath sounds every assessment, thoroughly
Nursing Interventions
1. Administer an antipyretic
2. Provide supplemental IV fluids
1. Administer supplemental oxygen as ordered, e.g., TPN
2. Auscultate for bowel sounds, and aspirate gastric contents to ensure the feeding tube is in the right place
The patient is an 80 year old male brought to the Emergency room by family due to altered level of consciousness, fever, tachycardia, shortness of breath and low oxygen saturation. The patient is nonverbal and had Covid-19 in December and January that ended up becoming a bacterial infection. In the emergency department the patient presented with hypoxia, hypotension, and started on IVF and was eventually intubated because the patient failed to oxygenate, ventilate, and
Subjective Data
The patient had abnormal labs that included red blood cells, hemoglobin, hematocrit, white blood cells, platelets, neutrophils, chloride, glucose, BUN, creatinine, albumin, INR, PT, specific gravity, urine glucose, urine protein, urine ketones, PaO2, and a positive sputum culture.
Objective Data
The patient was admitted to the emergency room after showing signs of tachycardia, fever, shortness of breath and low oxygen saturation levels. The patient is currently intubated and is waiting for a follow up plan and discharge instructions
Client Information