N441 Care Plan

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission **02/03/2022**	**Client Initials** **SC**	**Age** **71**	**Gender** **Male**
Race/Ethnicity **White**	**Occupation** **Retired (Former truck driver & steel factory worker)**	**Marital Status** **Widowed**	**Allergies** **No known**
Code Status **DNR (Do Not Resuscitate)**	**Height** **154.9 cm**	**Weight** **70.5 kg**	

Medical History (5 Points)

Past Medical History: Degenerative joint disease, shoulder pain, anxiety, depression, back pain, dyspnea, hypertension (HTN), left ear impaction, prostate cancer (metastasized to bone)

Past Surgical History: Vasectomy (date unknown)

Family History: Father (deceased) → HTN

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Former smoker for 19 yrs from age 16 to 35 (1/2 pack per day x 19 yrs = 8 pack yrs), no drug use, former alcohol user (daily beer consumption) but stopped at the age of 70, onset of alcohol use unknown

Assistive Devices: None

Living Situation: The pt lives alone, expresses financial concern as charted in the EHR but denied abuse or neglect in the home

Education Level: Unable to assess from pt due to pt being sedated on paralytics. Information was not available in the EHR.

Admission Assessment

Chief Complaint (2 points): Unable to obtain a verbal chief complaint. According to the nurse's report, SC complained of shortness of breath and weakness. He came to the emergency department (ED) on 02/03/2022 for complications associated with COVID-19 such as shortness of breath (SOB), weakness, and malaise.

History of Present Illness – OLD CARTS (10 points): SC is a 71 yr old white male who presented to the ED on 02/03/2022 complaining of shortness of breath and weakness with a prior history of anxiety, depression, hypertension, dyspnea, prostate cancer that has metastasized to the bone, and degenerative joint disease. He was admitted to Sarah Bush on 01/30/2022 for coughing, weakness, and shortness of breath with a positive result of COVID-19. The patient was sent home with a COVID-care kit but returned to the ED on 02/03/2022 for continued complications of COVID-19. The patient described the onset of symptoms began on 01/27/2022, location of symptoms was his chest, and duration of symptoms in total was 8 days. He described his pain as a 3 out of 10 on a numeric scale at the time of admission. Symptoms included feeling pressure on his chest and not being able to catch his breath. Associating factors were weakness and malaise. Symptoms were aggravated upon exertion and while laying down. The patient denied any relieving factors and treatment at home. History of present illness data was collected via nurse report. Unable to obtain verbal information due to patient being sedated and on a paralytic.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Pneumonia

Secondary Diagnosis (if applicable): COVID-19, Shortness of breath, hypoxia, acute kidney injury

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

Pneumonia is the inflammation of the lung parenchyma that can be caused by bacteria, viruses, or fungi (Hinkle & Cheever, 2018). In the patient's case, E.coli and Staph aureus were the causes of the patient's pneumonia. At the cellular level, inflammation in the alveoli produces an exudate that interferes with diffusion and perfusion (Hinkle & Cheever, 2018). Inflammation of the alveoli also attracts white blood cells that fill the alveolar spaces resulting in secretions and mucosal edema that eventually occlude the bronchi (Hinkle & Cheever, 2018). Inadequate perfusion causes reduced oxygen levels in the lungs and circulatory system. Once oxygen levels are decreased, cardiac output will decrease also because the heart will not have enough oxygenated blood to circulate to the lungs and other organs. At this point, it becomes a ripple effect. Clinical manifestations include orthopnea, fever, respiratory distress, pleuritic pain, mucopurulent sputum may be present, and coughing (Hinkle & Cheever, 2018). In severe cases, the patient can experience central cyanosis which is a late sign of hypoxemia (Hinkle & Cheever, 2018). Other signs and symptoms include adventitious lung sounds, weakness, and malaise (Hinkle & Cheever, 2018). For this patient, he was experiencing shortness of breath and a cough. Although he had a previous positive result for COVID, complications from having COVID could also mimic the same symptoms experienced with pneumonia. With pneumonia, a patient may experience a temperature of 38.5C to 40.5C (101 – 105 F) (Hinkle & Cheever, 2018). Their respirations can range from 25 to 45 breaths/min and the patient may be hypertensive (Hinkle & Cheever, 2018).

Diagnostics for pneumonia is determined through a chest x-ray, blood culture, and a sputum culture (Hinkle & Cheever, 2018). For this patient, a blood culture, sputum culture, chest x-ray, and CT of the chest was completed to verify the diagnosis of pneumonia. The blood culture results were negative, but the sputum culture showed a positive result for growth of E. coli and Staph aureus. The chest x-ray and CT of the chest showed patchy bilateral pulmonary opacities. A bronchoscopy can also be performed to confirm diagnosis, but this test was not used for this patient.

Treatment for pneumonia includes administration of the appropriate antibiotics, oxygen therapy, antipyretics, endotracheal intubation, or different modes of mechanical ventilation (Hinkle & Cheever, 2018). Antibiotics such as vancomycin, piperacillin, ceftazidime, or levofloxacin can be used as broad-spectrum antibiotics administered via intravenous (IV) infusion (Jones & Bartlett Learning, 2021). Antipyretics such as acetaminophen (Tylenol) can be taken to reduce the patient's fever (Jones & Bartlett Learning, 2021). For this patient, his treatment regimen included vancomycin to treat the diagnosis of pneumonia. He also had an endotracheal tube and placed on mechanical ventilation on 02/07/2022 to support his oxygen needs.

Pathophysiology References (2) (APA):

2020 Nurse's drug handbook (2021). Jones & Bartlett Learning.

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

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**	5.06	3.4	A decreased RBC count can indicate dietary deficiencies (Pagana et al., 2021). This patient has a dietary deficiency due to his reduced digestion of tube feedings and an abundant amount of residual volume.
Hgb	**11.3 – 15.2**	14.0	9.6	A decreased Hgb count can also indicate nutritional deficiencies (Pagana et al., 2021). This patient has a dietary deficiency due to his reduced digestion of tube feedings and an abundant amount of residual volume.
Hct	**33.2 – 45.3**	42.7	28.6	A decreased Hct count can also indicate nutritional deficiencies (Pagana et al., 2021). This patient has a dietary deficiency due to his reduced digestion of tube feedings and an abundant amount of residual volume.
Platelets	**149 – 393**	176	170	N/A
WBC	**4.0 – 11.7**	7.3	13.3	The increased WBC count indicates an infection (Pagana et al., 2021). The patient tested positive for pneumonia.
Neutrophils	**45.3 – 79.0**	88.2	N/A	N/A
Lymphocytes	**11.8 – 45.9**	6.2	N/A	N/A
Monocytes	**4.4 – 12.0**	4.8	3.0	Decreased monocyte count could be a result of his prostate cancer that has

				now metastasized to the bone.
Eosinophils	**0 – 6.3**	0.3	N/A	N/A
Bands	**3 – 5**	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-	**136 – 145**	132	136	Decreased sodium levels could indicate renal failure or pulmonary emphysema which could be a complication of COVID and pneumonia (Pagana et al., 2021).
K+	**3.5 – 5.1**	3.6	3.0	The patient's reduced potassium levels is a result of the patient taking furosemide which is a potassium wasting medication (Pagana et al., 2021).
Cl-	**98 – 107**	99	86	Decreased chloride levels indicate respiratory acidosis and hypokalemia (Pagana et al., 2021). This is evidenced by the patient's CO2 levels being 57.2 and his potassium level being 3.0.
CO2	**21 – 31**	22	39	Elevated blood levels indicate metabolic alkalosis (Pagana et al., 2021). This is evident by the patient's bicarbonate level being 39.7. The patient's kidneys are working to compensate for the

				respiratory acidosis.
Glucose	**74 – 109**	122	83	Elevated glucose levels indicate stress or if a patient has recently eaten (Pagana et al., 2021). This is evident by the patient having a continuous infusion of Jevity 1.2 kcal/mL at 20 mL/hr.
BUN	**7 – 25**	38	58	Increased BUN levels indicate kidney injury or dehydration (Pagana et al., 2021). The patient was taking acetaminophen as a home medication which is nephrotoxic. The patient is also taking doxepin, vancomycin, and furosemide which are all nephrotoxic (Jones & Bartlett Learning, 2021).
Creatinine	**0.6 – 1.2**	1.45	1.08	Increased creatinine indicates stress on the kidneys due to nephrotoxic drugs such as acetaminophen, doxepin, vancomycin, and furosemide (Pagana et al., 2021).
Albumin	**3.5 – 5.2**	3.5	2.4	Decreased levels indicate malnourishment (Pagana et al., 2021). This is evident by the patient not effectively digesting his tube feedings.
Calcium	**8.6 – 10.3**	8.6	7.1	Decreased calcium levels indicate renal failure, alkalosis, and malabsorption (Pagana et al., 2021). This is evident by the patient being in a metabolic alkalosis state in compensation along with increased

				BUN levels. The patient also is not getting adequate nutrition.
Mag	**1.6 – 2.4**	1.9	1.7	N/A
Phosphate	**2.5 – 4.5**	N/A	N/A	N/A
Bilirubin	**0.3 – 1.0**	0.7	0.5	N/A
Alk Phos	**34 – 104**	63	64	N/A
AST	**13 – 39**	64	26	Increased liver panel indicates possible drug induced liver injury (Pagana et al., 2021). This can be caused by acetaminophen (Pagana et al., 2021). Elevated liver panels can also indicate metastasis of cancer to the liver (Pagana et al., 2021).
ALT	**7 – 52**	60	16	Increased liver panel indicates possible drug induced liver injury (Pagana et al., 2021). This can be caused by acetaminophen (Pagana et al., 2021). Elevated liver panels can also indicate metastasis of cancer to the liver (Pagana et al., 2021).
Amylase	**30 – 220**	N/A	N/A	N/A
Lipase	**0 – 160**	N/A	N/A	N/A
Lactic Acid	**5 – 20**	N/A	N/A	N/A

Troponin	**< 0.1 ng/mL**	0.01	N/A	N/A
CK-MB	**3 - 5**	2.47	N/A	N/A
Total CK	**20 – 200**	246	N/A	Elevated levels indicate injury affecting the heart, skeletal, or brain (Pagana et al., 2021).

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	**1.5 – 3.0**	N/A	1.32	Cerner charting system flagged this result as being elevated. If this result is elevated this indicates the patient's blood taking longer to clot than normal (Pagana et al., 2021). This is due to current heparin therapy.
PT	**11 – 13 seconds**	N/A	16.8	Increased PT indicate extended bleeding times which was induced by the infusion of heparin due to a previous diagnosis of a deep vein thrombosis (DVT) (Pagana et al., 2021).
PTT	**25 – 36 seconds**	N/A	74.4	Increased PTT indicates an increased time to for the blood to clot which is a result of heparin therapy received by the patient (Pagana et al., 2021).

D-Dimer	**< 0.05**	N/A	N/A	N/A
BNP	**< 100 pg/mL**	31	N/A	N/A
HDL	**> 55 mg/dL**	N/A	N/A	N/A
LDL	**< 130 mg/dL**	N/A	N/A	N/A
Cholesterol	**<200 mg/dL**	N/A	N/A	N/A
Triglycerides	**33 – 135**	N/A	N/A	N/A
Hgb A1c	**≤ 6.4**	N/A	N/A	N/A
TSH	**2 – 10**	0.83	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	Cloudy	Cloudy urine indicates possible infection (Pagana et al., 2021).
pH	**4.8 – 6.0**	N/A	5.5	N/A
Specific Gravity	**1.005 – 1.03**	N/A	1.027	N/A
Glucose	**Negative**	N/A	Normal	N/A
Protein	**0 – 8 mg/dL**	N/A	1+	Protein present in the urine can indicate possible kidney injury (Pagana et al., 2021).

Ketones	**Negative**	N/A	Negative	N/A
WBC	**0 – 4**	N/A	58	Increased WBC indicate infection (Pagana et al., 2021).
RBC	**≤ 2**	N/A	>100	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	**7.31 – 7.41**	7.36	7.47	Elevated levels indicate a state of alkalosis as the kidneys compensate for respiratory acidosis.
PaO2	**40 – 50**	27.9	52.8	The patient's fluctuation in oxygen levels exhibit the lungs & kidneys trying to put the body back into acid-base balance.
PaCO2	**40 – 50**	41.5	57.2	The patient's respiratory system was in acidosis.
HCO3	**22 – 26**	21.7	39.7	Elevated bicarbonate levels show the body's attempt to compensate for the lung's acidotic state.
SaO2	**60 -75**	48.5	86.7	Decreased oxygen levels indicate

				low perfusion of oxygen in the blood (Pagana et al., 2021).

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 growth	N/A	Negative (02/13/22)	N/A
Blood Culture	No Growth	Negative (02/06/22)	N/A	N/A
Sputum Culture	No Growth	Negative (02/06/22)	Positive for E. coli & Staph. aureus (02/13/22)	This confirmed the diagnosis of pneumonia.
Stool Culture	No Growth	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Pagana K., Pagana, T., Pagana T. (2021). *Mosby's diagnostic & laboratory test reference* (15TH ed.). ELSEVIER.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

Test Performed	Date Performed	Results
Procalcitonin	02/03/22	0.34

Normal range =		
SARS COVID-19	02/03/22	Positive
MRSA PCR	02/11/22	Negative
Chest x-ray	02/03/22 & 02/15/22	02/03/22 → no pneumothorax, patchy bilateral pulmonary opacities present 02/15/22 → stable pulmonary infiltrates, no pleural effusions, no pneumothorax present
CT Chest	02/03/22	Hazy bilateral pulmonary opacities
EKG	02/03/22	Sinus tachycardia with inferior ischemia & premature atrial complexes
US Venous Duplex	02/03/22	Normal extremity flow, slow sluggish flow/stasis in the bilateral popliteal veins
US Thyroid	02/03/22	Normal gland size

Diagnostic Test Correlation (5 points):

Chest x-ray: This test was performed to verify the diagnosis of pneumonia and to determine the extend of fluid accumulation and damage to the lungs (Hinkle & Cheever, 2018). The patient's results showed pulmonary opacities in the lungs.

Chest CT: This test was also performed to confirm the diagnosis of pneumonia and can view the lungs at the cell view (Hinkle & Cheever, 2018). A CT scan is often used to investigate signs and symptoms such as shortness of breath, coughing, or fever (Hinkle & Cheever, 2018). The patient's CT scan showed hazy pulmonary opacities bilaterally in the lungs.

US Venous Duplex: This test is used to view the blood flow in the lower extremities (Hinkle & Cheever, 2018). Particularly for this patient, this test was used to rule out a previous diagnosis of a DVT. This test result showed normal flow in the extremities.

EKG: This test was performed to rule out any cardiac issues related to the patient's complaint of shortness of breath (Hinkle & Cheever, 2018). The patient's EKG showed normal sinus rhythm and random sinus tachycardia.

US Thyroid: The ultrasound of the thyroid was performed to investigate the patient's cough he presented with in the ED. The ultrasound showed no nodules or masses.

Diagnostic Test Reference (1) (APA):

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

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

Home Medications (5 required)

Brand/Generic	Doxepin	Tamulosin	Lisinopril	Lorazepam (Ativan)	Hydrocodone-Acetaminophen (NORCO)
Dose	3mg	0.4mg	30mg	1mg	7.5mg
Frequency	Every night	Daily	Daily	TID PRN	Q4H PRN
Route	Oral	Oral	Oral	Oral	Oral
Classification					
Mechanism of Action					
Reason Client Taking					
Contraindications (2)					
Side Effects/Adverse Reactions (2)					
Nursing Considerations (2)					
Key Nursing Assessment(s)/Lab(s) Prior to Administration					

Client Teaching needs (2)					

Hospital Medications (5 required)

Brand/Generic	Furosemide (Lasix)	Vancomycin Vancocin	Diprovan Propofol	Cisatracurium	Heparin
Dose	60mg	1000mg	60 mcg/kg/min	4 mcg/kg/min	14 mL/hr 1400 units/ hr
Frequency	Q6H	Q12H	60 mcg/kg/min Titrate up or down by 5-10 mcg/kg/min until RASS score of -3 is reached	3mg/hr Titrate by 1mg until RASS score of -3 is reached	Continuous infusion
Route	IV push	IV piggyback	Continuous infusion	Continuous infusion	Continuous infusion
Classification	Loop diuretic Antihypertensive Diuretic	Glycopeptide Antibiotic	Phenol derivative Sedative-hypnotic		
Mechanism of Action	This medication inhibits sodium	Disrupts RNA synthesis and	Decreases cerebral blood		

	and water reabsorption in the loop of Henle and increases urine formation (Jones & Bartlett, 2020).	cell wall production leading to cell death (Jones & Bartlett Learning, 2021).	flow & metabolic oxygen consumption causing the medication's hypnotic effects (Jones & Bartlett, 2021).		
Reason Client Taking	This patient has a medical history of HTN.	The patient had a diagnosis of pneumonia.	Used as a sedative while the pt is intubated.		
Contraindications (2)	Contraindications include anuria and hypersensitivity (Jones & Bartlett, 2020).	Allergy to corn, hypersensitivity to vancomycin (Jones & Bartlett Learning, 2021).	Hypersensitivity & an allergy to eggs or egg products (Jones & Bartlett Learning, 2021).		
Side Effects/Adverse Reactions (2)	Side effects include arrhythmias, azotemia, hypocalcemia, hypokalemia, hypomagnesemia, and hyponatremia (Jones & Bartlett, 2020).	Acute kidney injury or hypotension (Jones & Bartlett Learning, 2021).	Bradycardia, apnea, & hypotension (Jones & Bartlett Learning, 2021).		
Nursing Considerations (2)	Use cautiously in pts with advanced hepatic cirrhosis.	This medication should be	Repeated or lengthy use of a sedative should		

	Prepare drug for infusion with normal saline solution. Obtain pts weight before and during furosemide therapy. (Jones & Bartlett, 2020).	administered slowly no less than 1 hour. Monitor for adverse effects such as fever, chills, & nausea. (Jones & Bartlett Learning, 2021).	be avoided. Use cautiously in pt's with cardiac disease, or impaired cerebral circulation (Jones & Bartlett Learning, 2021).		
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Obtain pt's weight prior to administration. Obtain pt's blood pressure prior to administration. Assess pt's electrolyte status prior to administration. (Jones & Bartlett, 2020).	Assess pt's allergies prior to administration. Monitor pt's BUN & creatinine before & after administration. Monitor pt's WBCs before & after therapy. (Jones & Bartlett Learning, 2021).	Assess the pt's RASS score, lung sounds, respirations, & LOC before & after administration (Jones & Bartlett Learning, 2021).		
Client Teaching needs (2)	Advise the pt to take this medication at the same time each day. Also instruct	If no improvement is noted contact the provider, completing the	Assure pt they will be monitored during medication		

	the pt to take the last dose several hours before bedtime to prevent sleep interruption (Jones & Bartlett, 2020).	whole prescription is necessary (Jones, 2021).	administration. Do not perform activities requiring alertness (Jones & Bartlett Learning, 2021).		

Medications Reference (1) (APA):

2020 Nurse's drug handbook (2021). Jones & Bartlett Learning.

PDR Search. PDR.Net. (n.d.). Retrieved November 11, 2021, from https://www.pdr.net/.

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Student could not assess the pt's alertness & orientation due to the pt being sedated & on a paralytic. The paralytic was d/c at 1000 but pt was still unable to be assessed for alertness & orientation at 1148 because of the paralytic still circulating throughout his system. Pt's appeared comfortable & lightly groomed.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:**	The patient's skin color was appropriate for his ethnicity. His skin was warm to the touch, intact, & dry but appeared to have a first stage non-blanchable pressure ulcer forming on the great toe and second digit of the right foot.

Rashes: **Bruises:** **Wounds:** . **Braden Score: 9** **Drains present: Y☐ N ☒** **Type:**	Foot care was performed at 1045. Skin turgor was loose on the clavicle. No rashes or bruises noted, but the patient had an abrasion on the left cheek as a result from proning. Patient's braden score was 10 indicating a high for impaired skin integrity.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Patient's head & neck symmetrical with no signs of tracheal deviation. The right ear was clear of debris, but patient had a left ear impaction of cerumen. His eyes were PERLA & symmetrical. Although his pupils were 3mm, they responded to light with the penlight. His eyes were moist, sclera was white, and conjunctiva pink. The patient was sedated & on a paralytic, so the nursing student was unable to assess visual acuity. Patient has a size 16 nasogastric tube (NG) with no signs of septal deviation. The patient also has a triple lumen central line located in the right jugular vein. Student performed oral care & found scant amount of dried blood on the gums. No other oral findings noted.
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:**	S1 & S2 audible upon auscultation. Patient was in sinus rhythm during assessment. Dorsal pedalis & brachial peripheral pulses were palpated bilaterally with a capillary refill of +2. Patient's fingers appeared to be in the starting stages of clubbing, but his SaO2 remained within normal levels ranging from 94-96%.

RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** 7.5 **Placement (cm to lip):** 23cm **Respiration rate:** 26 **FiO2:** 100 **Total volume (TV):** 300 **PEEP:** 10 **VAP prevention measures:**	Patient was sedated & on a paralytic. His lung sounds were coarse bilaterally, anteriorly, & posteriorly in all lobes. However, his breathing was not labored & his chest rose & fell symmetrically. The patient had an endotracheal (ET) tube size 7.5 placed 23 cm to the lip inserted on 02/07/22 to begin mechanical ventilation. At the time of assessment, the ventilator was set to 26 respirations, an FiO2 of 100%, total volume of 300, and PEEP of 10. The tube remained intact, was suctioned, & repositioned by the student at 1030. The patient's saturation of oxygen remained between 94-96%. VAP prevention measures taken by the nursing student included oral hygiene every 2 to remove any dried blood or mucous buildup in the mouth. The student also suctioned the patient's ET tube to reduce possible growth of pathogens. Lastly, the student & clinical instructor ensured hand hygiene was completed & proper PPE donned before providing care.
GASTROINTESTINAL: **Diet at home:** Regular **Current Diet:** NG tube → Jevity 1.2 kcal/mL **Height:** 154.9 cm **Weight:** 70.5 kg **Auscultation Bowel sounds:** **Last BM:** Dignishield **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** NONE	The patient's diet at home was regular. He currently weighs 70.5 kg and is 154.9 cm in height. His current diet in the critical care unit (CCU) was NPO with a size 16 NG tube for feedings using Jevity 1.2 kcal/mL infusing originally at 10mL/hr due to residual volumes being over 500mL. During the student's clinical experience, the patient's residual volume was <100mL, so his feeding infusion was increased to 20mL/hr on 02/15/22. His

Incisions: NONE **Scars:** NONE **Drains:** NONE **Wounds:** NONE **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☒ N ☐** **Size:** 16 **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	bowel sounds were active in all 4 quadrants with no presence of distention, incisions, scars, drains, or wounds. The patient's last bowel movement could not be assessed by the student because he had a Dignishield rectal tube placed 02/14/22 for stool collection. No stool was present in collection bag for the duration of clinical.
GENITOURINARY: **Color:** yellow **Character:** clear **Quantity of urine:** 500mL **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** Indwelling **Size:** 16 **CAUTI prevention measures:**	The patient had a size 16 indwelling catheter placed 02/07/22. Upon assessment his urine in the collection bag was yellow & clear. Total urine output was 500 mL. The patient could not be assessed for painful urination or other associated complications of an indwelling catheter due to the patient being sedated & on a paralytic. This patient is not on dialysis. His genitals were the appropriate color for his ethnicity. There were no signs of external infection, redness, swelling, or wounds to the genitals. CAUTI prevention measures taken by the student includes emptying the catheter collection bag, cleaning the catheter tubing from the patient to the collection bag, & ensuring the bag is always positioned below the patient. During insertion, sterile technique should be priority as well as performing hand hygiene before caring for the catheter or pericare. Also, placing the patient in reverse Trendelenburg position will allow urine to flow downwards using gravity to prevent stasis of urine in the bladder.

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** ☐	Student unable to assess the patient's reflex status due to the patient being sedated & on a paralytic. His capillary refill was +2 in his hands bilaterally & feet bilaterally. Passive range of motion was completed during repositioning of the patient supine on his left side with the HOB 30-45 degrees. This patient required full support & ADL assistance because of sedation & medical paralysis. The patient was a fall risk with a score of 50 indicating a high risk for falls. He remained bedfast during the entirety of clinical.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☒ if no - Legs ☐ Arms ☐ Both ☒** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.Using the peripheral nerve stimulator (train of four monitor), the patient had 1-2 facial nerve responses out of 4 during initial assessment at 0830. For this reason, the paralytic was titrated from 4 mcg/kg/min to 3 mcg/kg/min. After 15 mins, his nerve responses were reassessed & resulted still with 1-2 pulses from his facial nerve. At 1000, the paralytic was discontinued to prepare for a sedation vacation. His alertness, orientation, speech, sensory status, & mental status were unable to be assessed due to the patient being sedated & on a paralytic. The patient's LOC score was a 3 on the Glasgow scale due to sedation & paralytics. The patient's RASS score was -3 & would remain at that score until his sedation was discontinued. A RASS score of -3 indicates moderate sedation, however, the patient remained unarousable, unresponsive, & had no eye movement. At 1148, the patient's

	neurological status was reassessed and he still did not respond to touch, verbal, or painful stimuli.
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 have any known family members who were present as support. The patient designated a priest (Joseph Brandon) to be his surrogate. This indicated a religious significance & affiliation for support. The patient attended the same church as the priest. No other information was provided due to the patient being sedated and on a paralytic.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0816	82 Rt thumb	114/56 Lt arm	26 Ventilator	36.5 C	94 Ventilator
1155	61 Right finger	113/33 Lt arm	26 Ventilator	36.4 C	96 Ventilator
1157	84 Right finger				

Vital Sign Trends/Correlation:

The patient's vital signs remained stable during the duration of clinical. Upon gathering the second set of vitals, the patient's pulse dropped to 61 bpm, but was not significant enough to report to the provider. The pulse was reassessed at 1157 and was within normal range. His respiratory rate is elevated at 26 breaths/min, but this setting was established by the pulmonary doctor. The patient

remained at 26 breaths/min exactly for the duration of clinical. This is due to the patient being on a paralytic and unable to breath on his own. The paralytic was discontinued at 1000 to prepare the patient for sedation vacation later on in the day.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0851	FLACC	N/A	N/A	N/A	N/A
1200	FLACC	N/A	N/A	N/A	N/A

Patient's pain scale & severity could not be determined due to paralytic & sedation.

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 gauge **Location of IV:** Right forearm **Date on IV:** 02/07/22 **Patency of IV:** flushed & aspirated without difficulty **Signs of erythema, drainage, etc.:** no signs of phlebitis, erythema, drainage, or infiltration **IV dressing assessment:** dry & intact	The patient had a 20-gauge IV located in the right forearm that was inserted on 02/07/22 for infusions of vancomycin 1000mg Q12H. If vancomycin was not infusing the IV was saline locked. The IV was flushed & aspirated without difficulty at 0900. There were no signs of phlebitis, erythema, drainage, or infiltration around the IV site. The dressing

	was dry & intact.
Other Lines (PICC, Port, central line, etc.)	
Type: Central Line **Size:** Triple lumen **Location:** Rt jugular vein **Date of insertion:** 02/07/22 **Patency:** Good blood return, aspirated & infused without difficulty **Signs of erythema, drainage, etc.:** no signs of erythema, infiltration, or phlebitis **Dressing assessment:** dry & intact **Date on dressing:** 02/07/22 **CUROS caps in place: Y ☒ N ☐** **Type:** Arterial line **Location:** Rt radial artery **Date of insertion:** 02/07/22 **Patency:** aspirated & flushed without difficulty **Signs of erythema, drainage, etc.:** no signs of erythema, infiltration, or phlebitis **Dressing assessment:** dressing changed per facility policy. Dressing was clean, dry, & intact. **Date on dressing:** 02/15/22 **CUROS caps in place:** YES **CLABSI prevention measures:** flush & aspirate during every assessment, change tubing Q72H, assess for redness, swelling, hardness, or warmth.	The patient had a triple lumen central line located in the right jugular vein that was inserted on 02/07/2022. Heparin was infused at 14 mL/hr, Fentanyl was infused at 25 mcg/ hr, Dextrose 5% / 0.45% NS was infused at 75 mL/hr, and Propofol was infused at 60mcg/kg/min for the duration of clinical. Cisatracurium was infused at 4mcg/kg/min until 0930, then reduced to 3mcg/kg/min. At 1000 cisatracurium was discontinued. The central line aspirated & infused without difficulty. There were no signs of erythema, infiltration, or phlebitis on the site. The dressing was dry & intact with a dressing date of 02/07/2022. There were CUROS caps present on each unused port on the tubing. The patient also had an arterial line located in the right radial artery with an insertion date of 02/07/2022. The line aspirated & flushed without difficulty. There were no signs of erythema, infiltration, swelling, or phlebitis. The dressing was changed per facility policy on 02/15/2022 during nursing student assessment. After dressing change the IV site was dry & intact with CUROS caps in place on unused ports on the tubing. CLABSI prevention measures includes flushing & aspirating the line during each assessment, changing the tubing Q72H, and assessing for redness, swelling, hardness, or warmth. Other

	prevention measures include using alcohol impregnated caps, using sterile technique during dressing changes, performing hand hygiene prior to care, and wearing gloves.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
1039 mL (949 mL IV drip medications, 30 mL NG flush + medications, 20mL x 3hr = mL of NG tube feeding)	500 mL @ 0930 – indwelling catheter 150 mL @ 1200 – indwelling catheter

Nursing Care

Summary of Care (2 points)

Overview of care: The nursing student provided ET tube suctioning and care, oral care, and catheter care. The student also assessed the patient from head-to-toe noting any abnormalities or changes to the patient's status. With the assistance of the preceptor, the student nursing changed all IV tubing, arterial line dressing, and administered medications via continuous infusion. The patient's

intake and output was documented and charted. With the assistance of the clinical instructor, the nursing student assessed the patient's skin integrity, suctioned the ET tube, and assessed the patient's ventilator settings.

Procedures/testing done: The patient had an EKG, US of the thyroid and venous duplex, CT, and chest x-ray performed to confirm the diagnosis of pneumonia. The patient also had a CMP, blood coagulation studies, sputum culture, blood culture, and urine culture performed to further confirm the diagnosis of pneumonia.

Complaints/Issues: Due to the patient's sedation and paralysis, the patient was unable to verbalize any complaints or issues.

Vital signs (stable/unstable): The patient's vitals remained stable for the duration of clinical.

Tolerating diet, activity, etc.: Upon assessment the patient's residual contents measured at 10 mL. Prior to clinical, the patient's residual volume stayed at a consistent number > 500 mL.

Physician notifications: No physician

Future plans for client:

Discharge Planning (2 points)

Discharge location:

Home health needs (if applicable):

Equipment needs (if applicable):

Follow up plan:

Education needs:

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	**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.

this client				
1. Impaired spontaneous ventilation related to decreased pulmonary function as evidenced by the patient requiring mechanical ventilation on 02/07/2022.	After admission on 02/03/2022, the patient was unable to maintain his oxygen saturation & perfusion causing him to need mechanical ventilation & intubation on 02/07/2022.	**1.**Assess the patient's lung sounds bilaterally, anteriorly, & posteriorly during each assessment. **2.**Check ET tube placement by assessing rise & fall of the chest.	**1.** The patient will have no complications during this shift.	Goal met – the patient did not have any complications during the shift. Goal met – The nursing student and clinical instructor assessed the placement of the ET tube including rise & fall of the chest, tubing connections, & ventilator settings.
2. Ineffective protection related to neurosensory impairment as evidenced by the patient being sedated and on a paralytic.	Due to the sedative & paralytic, the patient's natural defenses are depressed such as the cough & gag reflex.	**1.** Assess the patient's RASS score to ensure proper paralytic parameters are safe for the patient. **2.**Perform ET tube care & suctioning to compensate for patient's decreased cough & gag reflex.	**1.** The patient will have a 4 out of 4 on the peripheral nerve monitor by 1200 on 02/15/2022.	Goal not met – The patient remained a 1 out of four on the facial nerve stimulator. After discontinuation of the paralytic at 1148, his score remained between 1-2. Goal met – the nursing student & preceptor completed oral care during assessment. The nursing student & clinical instructor performed ET tube suctioning.
3. Risk for decreased tissue perfusion related to inadequate	Having pneumonia causes opacities & infiltrates on a chest x-ray which	**1.** Monitor the patient's ventilator settings & VS to ensure the	**1.** The patient's oxygen saturation will remain equal to or above 94% during each shift.	Goal met – the patient's oxygen saturation remained equal to or above 94% for the duration of clinical.

oxygen exchange as evidenced by infiltrates & opacities on the chest x-ray.	can result in decreased oxygen perfusion.	patient is adequately oxygenated. **2**Assess the patient's ET tube placement & closely monitor the patient's ABG levels.		Goal partially met – the patient's ventilator settings were assessed by the nursing student & clinical instructor. Lungs sounds were auscultated bilaterally, anteriorly, & posteriorly indicating coarse crackles in all lobes.
4. Impaired skin integrity related to decreased mobility as evidenced by stage 1 pressure ulcers on the right toes & an abrasion on the patient's left cheek.	The sedative & paralytic doesn't allow the patient to be mobile which have caused pressure ulcers & an abrasion to appear on the patient's skin.	**1.** Perform in-depth head-to-toe assessments, particularly on the skin in areas of high friction or pressure. **2.** Turn the patient Q2H & as needed placing pillows & foam boards on bony prominences.	**1.** The patient will not experience further skin breakdown or complications until discharge.	Goal met – the patient did not have any additional wounds or threats to his skin integrity during the entirety of clinical. Goal met – the nursing student & clinical instructor performed foot care to decrease the risk of further skin impairment.
5. Imbalanced nutrition related to the inability to digest food as evidenced by the patient's consistent residual volume	During each feeding the patient's residual volume would be greater than 300 mL which indicates poor digestion & can	**1.** Check for residual volume before the administration of medications & other	**1.** The patient will maintain an infusion of Jevity 1.2 kcal/mL at a rate of 20mL/hr for 24 hours.	Goal met – the patient maintained a feeding rate of 20 mL/hr. Goal met – the patient's urine output for the duration of clinical was 650 mL. He also maintained a residual

being between 400-500mL.	lead to imbalanced nutrition.	liquids. **2.** Monitor the patient's urine & stool output during each assessment.		volume of less than 50mL in his stomach.

Other References (APA):

Concept Map (20 Points):

Subjective Data

The patient came to the ED complaining of shortness of breath & weakness on 02/03/2022. No other subjective data was able to be collected due to the patient being sedated & on a paralytic.

Nursing Diagnosis/Outcomes

Impaired spontaneous ventilation related to decreased pulmonary function as evidenced by the patient requiring mechanical ventilation on 02/07/2022.
The patient will have no complications during this shift.
Ineffective protection related to neurosensory impairment as evidenced by the patient being sedated and on a paralytic.
The patient will have a 4 out of 4 on the peripheral nerve monitor by 1200 on 02/15/2022.
Risk for decreased tissue perfusion related to inadequate oxygen exchange as evidenced by infiltrates & opacities on the chest x-ray.
The patient's oxygen saturation will remain equal to or above 94% during each shift.
Impaired skin integrity related to decreased mobility as evidenced by stage 1 pressure ulcers on the right toes & an abrasion on the patient's left cheek.
The patient will not experience further skin breakdown or complications until discharge.
Imbalanced nutrition related to the inability to digest food as evidenced by the patient's consistent residual volume being between 400-500mL.
The patient will maintain an infusion of Jevity 1.2 kcal/mL at a rate of 20mL/hr for 24 hours.

Objective Data

Opaque infiltrates on CXR
COVID diagnosis on 01/27/2022
Pneumonia diagnosis 02/03/2022
Pt intubated on 02/07/2022
Neutrophils 88.2 on admission
Lymphocytes 6.2 on admission
Potassium = 3.0 on 02/15/2022
CO2 = 39 on 02/15/2022
BUN = 38 on admission & 58 on 02/15/2022
Blood arterial pH = 7.47 on 02/15/2022
PaCO2 = 57.2 on 02/15/2022
HCO3 = 39.7 on 02/15/2022
Sputum culture positive for E. coli & Staph aureus on 02/13/2022

Client Information

The patient is a 71 year old white male with a history of anxiety, depression, hypertension, dyspnea, prostate cancer that has metastasized to the bone, and degenerative joint disease who presented to the ED complaining of shortness of breath & weakness on 02/03/2022. He tested positive for COVID-19 on 01/30/2022 & continued to have complications upon readmission to the ED.

Nursing Interventions

Assess the patient's lung sounds bilaterally, anteriorly, & posteriorly during each assessment.
Check ET tube placement by assessing rise & fall of the chest.
Assess the patient's RASS score to ensure proper paralytic parameters are safe for the patient.
Perform ET tube care & suctioning to compensate for patient's decreased cough & gag reflex.
Monitor the patient's ventilator settings & VS to ensure the patient is adequately oxygenated.
Assess the patient's ET tube placement & closely monitor the patient's ABG levels.
Perform in-depth head-to-toe assessments, particularly on the skin in areas of high friction or pressure.
Turn the patient Q2H & as needed placing pillows & foam boards on bony prominences.
Check for residual volume before the administration of medications & other liquids.
Monitor the patient's urine & stool output during each assessment.