N321 CARE PLAN #1

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Lakeview College of Nursing

N321: Adult Health I

Kristal Henry

September 26, 2023

Demographics

Date of Admission 9/12/25	Client Initials C.Z	Age 79 years old	Biological Gender Male
Race/Ethnicity White/Caucasian	**Occupation** Retired	**Marital Status** Widowed	**Allergies** No known allergies
Code Status Full code	**Height** 5'11	**Weight** 137 pounds	

Medical History

Past Medical History: cataracts bilaterally, congestive heart failure, COPD, pneumonia, TIA

Past Surgical History: bronchoscopy (9/11/25), cataract removal, hernia repair, right hip fracture (1/3/24), inguinal hernia repair, thoracentesis (8/8/25 & 9/11/25).

Family History: mother deceased of a stroke and seizure disorder, father deceased of lymphoma, sister deceased from sepsis

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Smoked cigarettes 1 pack a day for 50 years. Nondrinker of alcohol. No use of other substances. Occasionally uses nicotine gum.

Education: Graduated high school and went to Parkland**.** Retired machinist at the University of Illinois

Living Situation: lives at his own residence alone located in Champaign, IL.

Assistive devices: uses a cane during the day inside and outside and a walker at night

Admission History

Chief Complaint: Shortness of breath

History of Present Illness (HPI)– OLD CARTS

Patient presented to the ED in Champaign, IL then was transferred to OSF. He came in experiencing shortness of breath in his chest area earlier in the day of 9/12/25. It was constant throughout the morning. He stated, “It feels like I can’t catch my breath”. He normally takes Pradaxa to help relieve the pain but had not been taking it due to having a thoracentesis the day prior. The patient stated that moving around made it worse. He denied chest pain. He did not give severity but said he has experienced this feeling in the past.

Admission Diagnosis

Primary Diagnosis: Pneumonia

Secondary Diagnosis (if applicable): N/A

Pathophysiology

One of the main causes of cancer-related mortality worldwide for both men and women is lung cancer (Capriotti and Frizzell, 2020). Small cell lung cancer typically starts in the lung's airways and rapidly spreads to other parts of the body. Smoke and other environmental pollutants have the ability to paralyze the cilia of the epithelium of the respiratory tract. When cilia, which typically remove bacteria, carcinogens, and other foreign material, become less active, carcinogens build up. The cancer cells proliferate quickly and widely due to a lack of cellular apoptosis. Additionally, the cancer cells are capable of metastasis and angiogenesis, or the formation of new blood vessels. Furthermore, the malignancy invades the surrounding tissue destructively. Usually, lung cancer starts as a dysplastic region that eventually thickens into bronchial mucosa. The lesion spreads and may develop into a tumor inside the lung tissue, grow into the bronchial lumen, or destroy the lining epithelium. Lung cancer first primarily affects the respiratory system. Lung cancer can impact numerous bodily systems in its advanced stages, particularly if it spreads to remote regions. Around the lungs, fluid can build up. When that occurs, your lungs are unable to expand completely upon inhalation. Lung cancerous cells have the ability to enter the bloodstream. A common way that cancer spreads from the lungs to other organs is through the circulatory system. You have a higher risk of blood clots if you have lung cancer. A pulmonary embolism is a type of blood clot that makes its way to the lung. Although it is rare, lung cancer can spread to the pericardial sac or the heart. The tissue that surrounds the heart is called the pericardial sac. By infiltrating nearby lymph nodes, cancer can spread from the lungs. The cells can spread to other organs and develop into new cancers once they are in the lymphatic system. Certain forms of lung cancer create chemicals that resemble hormones to enter the bloodstream. Other organ issues may potentially result from this. It is known as a paraneoplastic syndrome. Lung cancer frequently spreads to the liver, which can result in jaundice. Pancoast tumors are those that develop in the upper region of the lungs. They may result in Horner syndrome, which affects the facial and ocular nerves. Bone and muscle discomfort, bone weakness, and an elevated risk of fracture can result from cancer that spreads to the bones. An autoimmune condition called Lambert-Eaton syndrome is linked to several forms of lung cancer. Muscle weakness may result from Lambert-Eaton syndrome, which disrupts nerve signals to the muscles.

Lung cancer frequently progresses slowly and shows no symptoms until it is advanced (Hinkle et al., 2022). The tumor's size and location, the level of blockage, and the presence of metastases to nearby or distant locations all affect the symptoms and indicators (Hinkle et al., 2022). Coughing or a change in a persistent cough is the most common sign of lung cancer (Hinkle et al., 2022). This symptom is often disregarded and mistakenly associated with respiratory infections or smoking. A dry, persistent cough without sputum production may be the initial symptom of the illness (Hinkle et al., 2022). When airways are blocked, an infection may cause the cough to become productive. In patients in the early stages of their illness, dyspnea is common. Dyspnea can be caused by pleural effusion, pneumonia, treatment-related problems, or tumor obstruction of the tissue of the lungs or airway (Hinkle et al., 2022). Blood-tinged sputum or hemoptysis may be expected (Hinkle et al., 2022). Shoulder or chest pain could be a sign of a tumor affecting the pleura or chest wall (Hinkle et al., 2022). Another late symptom that could be connected to bone metastases is pain (Hinkle et al., 2022).

A variety of abnormal lab results and vital signs, especially those associated with paraneoplastic syndromes, can be seen in patients with small cell lung cancer (SCLC) (Basumallik & Agarwal, 2020). Because of their neuroendocrine properties, SCLC tumors can release hormones or other chemicals that interfere with regular body processes (Basumallik & Agarwal, 2020). These interferences can occasionally be seen before the cancer is identified. You may see hyponatremia, hypokalemia, abnormal liver function tests, hypercalcemia, and blood count abnormalities (Basumallik & Agarwal, 2020). Some possible vital sign abnormalities you could see are high blood pressure, low blood pressure, or irregular heart rate (Basumallik & Agarwal, 2020).

Chest x-rays, CT or MRI scans, sputum analysis, bronchoscopies, and CT-guided tissue biopsies are among the diagnostic procedures used to detect lung cancer (Hinkle et al., 2021). The purpose of a chest x-ray is to look for infection, atelectasis, pulmonary density, and a single lung nodule (Hinkle et al., 2021). Chest CT scans are used to detect microscopic nodules that are difficult to see on chest x-rays and to check for lymphadenopathy in specific regions over time (Hinkle et al., 2021). Lung cancer is frequently diagnosed by fiberoptic bronchoscopy, which offers a thorough examination of the tracheobronchial tree and enables brushings, washings, and biopsies of questionable regions (Hinkle et al., 2021). A range of scans can be used to check for cancer metastases. These could include liver ultrasonography, positron emission tomography (PET) scans, abdomen scans, and bone studies (Hinkle et al., 2021). Central nervous system metastases are found using magnetic resonance imaging (MRI), computed tomography (CT) scans, and other neurologic diagnostic techniques (Hinkle et al., 2021).

Chest radiographs and CT imaging were performed, which supported the diagnosis of neuroendocrine carcinoma. These diagnostic tests were the main markers that showed the lung mass in the patients left lobe. Some labs could also helped verify the diagnosis but with these lab values, it was directed more to the diagnosis of pneumonia. When the patient was diagnosed with this cancer, past labs t would have supported the diagnosis of this illness.

The kind and stage of lung cancer determine the course of treatment. Treatment is more successful when the diagnosis is made early (Capriotti & Frizell, 2020). Chemotherapy, radiation therapy, and surgery are the main treatments for lung cancer. For people with SCLC may involve endoscopic stent placement (to open an airway), radiation therapy, laser therapy to clear airways blocked by tumor growth, and surgery (Capriotti & Frizell, 2020). Despite their small size, the cancer cells proliferate rapidly and form massive tumors (Capriotti & Frizell, 2020). These tumors frequently spread quickly to other body areas, such as the liver, brain, and bones (Capriotti & Frizell, 2020). By the time a patient receives a SCLC diagnosis, metastases have usually already taken place, and the illness is advanced (Capriotti & Frizell, 2020). The treatment of this patient was not specific, but it was shown in the chart that the patient goes to an oncology clinic to receive treatment.

For treatment, most doctors classify small cell lung cancer into two stages: limited and extensive (American Cancer Society, 2024). In the limited stage, patients may benefit from more aggressive approaches, such as combining chemotherapy with radiation, with the goal of curing the disease (American Cancer Society, 2024). In the extensive stage, chemotherapy along with immunotherapy is generally used, aiming to control the cancer rather than cure it (American Cancer Society, 2024). This patient underwent an MRI to help determine the stage of his cancer.

Pathophysiology References (2) (APA):

American Cancer Society. (2024, January 29). *Small Cell Lung Cancer Stages | Stages of Small Cell Lung Cancer*. Www.cancer.org. https://www.cancer.org/cancer/types/lung-cancer/detection-diagnosis-staging/staging-sclc.html

Basumallik, N., & Agarwal, M. (2020, February 14). *Small cell lung cancer*. Nih.gov; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK482458/

Capriotti, T. (2020). Pathophysiology: Introductory concepts and clinical perspectives (2nd ed.). F.A. Davis Company: ISBN 9780803694118

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

Laboratory/Diagnostic Data

Lab Name	Admission Value	Today's Value	Normal Range	Reasons for Abnormal
Sodium	141 mmol/L	134 mmol/L low	135-145 mmol/L	Hyponatremia, or low blood sodium, is a

				symptom of pneumonia. It causes an inflammatory reaction and releases chemical messengers known as cytokines, making it a major stressor on the body. Antidiuretic hormone (ADH) is released inappropriately as a result of the stress caused by the infection and the inflammatory response, which includes cytokines. The kidneys retain more water as a result of this extra ADH, which lowers blood sodium levels and causes hyponatremia

				(Pagana et al., 2021).
BUN	29 mg/dL high	36 mg/dL high	8-26 mg/dL	Pneumonia patients may have elevated blood urea nitrogen (BUN) as a result of increased breakdown of proteins from the acute infection or dehydration, which concentrates BUN in the blood. Acute kidney injury can also result from the inflammation caused by severe pneumonia, which lowers the kidneys' capacity to filter waste and raises BUN levels (Pagana et al., 2021). This patient doesn’t directly have an issue with kidney function,

				but it could possibly be an underlying condition or a condition that could progress in the future.
Creatinine blood	0.91 mg/dL	0.63 mg/dL low	0.70-1.30 mg/dL	Given that pneumonia is a serious infection that can reduce muscle mass and metabolic rate, a low creatinine level in a patient may be a sign of underlying muscle wasting or malnutrition (Pagana et al., 2021). This patient has had recent weight loss so this could also be a reason of why this level could be decreased.
BUN creatinine ratio	32 ratio high	57 ratio high	12-20 ratio	The patient had abnormal BUN and

				creatinine lab values which can also be why this lab value is also abnormal. This patient currently has pneumonia which is an infection that causes inflammation.
Calcium	9.2 mg/dL	8.3 mg/dL low	8.7-10.5 mg/dL	This lab can be abnormal due to the patient being older and losing body mass due to cancer. The patient has also been experiencing weight loss. He may not be getting the proper amount of Vitamin D as he should. It can also be an indication of an underlying problem.
Total protein	6.4 g/dL	5.3 g/dL low	6.0-8.0 g/dL	Because inflammation

				lowers albumin, the most abundant protein in the blood, a person with pneumonia may have low total protein (Pagana et al., 2021). Although it can have an adverse impact on protein levels, this inflammatory reaction is an essential component of the body's defense against infection. The liver reprioritizes the production of proteins during an infection (Pagana et al., 2020). It produces less albumin as a result. In patients with pneumonia, hypoalbuminemia is

				frequently utilized as a gauge of the severity of the illness because it is such a clear indicator of inflammation and poor nutritional condition (Pagana et al., 2021). Additionally, this patient has lost weight, and their cancer is growing, which may possibly be influencing these levels.
Albumin	3.4 g/dL low	2.6 g/dL low	3.5-5.0 g/dL	This patient has a past medical history of heart failure but is also experiencing an infection (Cleveland Clinic, 2022). These can be reasons of why

				this level is decreased. The inflammatory reaction is the main reason for depressed serum albumin levels in a patient with pneumonia.
RBC	4.76 cells/mcL	4.17 cells/mcL low	4.40-5.80 cells/mcL	This patient has a past medical history of CHF which could be causing a decrease in this lab value. As a result of fluid retention brought on by CHF, the plasma volume may increase. It may appear that there are fewer red blood cells in the blood due to the increased fluid content. Elevated

				levels of inflammatory cytokines, such as TNF-α and IL-6, can decrease red blood cell synthesis and interfere with their ability to consume iron, causing CHF to produce an inflammatory reaction (Pagana et al., 2021).
Hemoglobin	14.5 g/dL	12.7 g/dL low	13.0-16.5 g/dL	Pneumonia patients with low hemoglobin frequently have anemia of inflammation, a condition in which the body's ability to absorb and use iron is impaired by the hormone hepcidin, a hormone which is

				generated during inflammation (Jung et al., 2020). Additionally, red blood cell (RBC) synthesis is decreased, and their destruction may increase due to the increased inflammation (Jung et al., 2020). Also, certain pneumonia-causing bacteria have the ability to actively compete with the host for iron, reducing the body's iron reserves and exacerbating anemia (Jung et al., 2020).
MPV	7.0 fL low	6.6 fL low	8.0-12.6 fL	One of the numerous acute-phase reactants

				that are set off in inflammatory diseases like pneumonia is reactive thrombocytosis, which causes a rise in platelets and a fall in mean platelet volume which is MPV (Pagana et al., 2021). Since pneumonia is inflammation of the lungs, this rationale would make sense as to why the lab is low.
Neutrophils	89.1% high	86.3% high	40.0-68.0%	The development of pneumonia depends on neutrophils, the cell type most commonly associated with the onset of serious disease (Cleveland Clinic,

				2022). After arriving at the infection site, neutrophils assemble in quantities and release a flood of antimicrobial chemicals that are intended to control and destroy the infection. This patient was diagnosed with pneumonia, a bacterial infection and lung inflammation.
Lymphocytes	5.3% low	6.4% low	19.0-49.0%	Low lymphocytes can occur in patients that may have pneumonia. (National Heart, Lung, and Blood Institute [NHLBI], n.d.). The infection complicates the immunological

				response (National Heart, Lung, and Blood Institute [NHLBI], n.d.). This could be why the values were low due to the underlying cause even before it was diagnosed.
Glucose	127 mg/dL high	N/A	70-99 mg/dL	When a person has pneumonia, stress-induced hyperglycemia—a condition in which the body releases hormones like cortisol to combat the infection—often results in high glucose (hyperglycemia), which impairs insulin sensitivity (Yung et al. 2024). Even those

				without diabetes may have an increase in blood sugar levels as a result of this reaction.
INR	1.2 high	N/A	0.9-1.1	Because of the systemic consequences of the infection, which activate the coagulation system, a person with pneumonia may have a high INR (Pagana et al., 2021). Additionally, there is a blood clot in this patient, which may be a sign of an increased lab value.
D-dimer	N/A	2,042 ng/mL high	0-622 ng/mL	The protein fragment known as D-dimer, which is produced by

				your body when a blood clot dissolves, is measured by a blood test called a D-dimer test (Pagana et al., 2021). This level was increased, which makes sense given that the patient had a blood clot**.**
NT-proBNP	1,195.3 pg/mL high	N/A	<450.0 pg/mL	When the heart is under stress, like in heart failure, it produces a protein fragment called NT-proBNP (MedlinePlus, 2023). Heart failure can be diagnosed and tracked with the use of this biomarker, which can be detected in the blood. A myocardial

				infarction (heart attack), a stroke, and other illnesses that put stress on the heart might also be indicated by elevated levels. This patient had previously experienced stress to the heart due to a TIA.
Lactic acid	3.3 mmol/L high	N/A	0.7-2.0 mmol/L	A form of metabolic acidosis known as lactic acidosis is brought on by an accumulation of lactic acids in the blood (Cleveland Clinic, 2023). When your tissues don't get enough oxygen, your body makes more lactate. This patient is

				short of breath and receiving oxygen to help expand his lungs. He also has a past medical history of CHF and has a cancer that can also overproduce lactate (Cleveland Clinic, 2023).
Absolute neutrophils	9.30 uL high	7.90 uL high	1.40-5.30 uL	Since neutrophils are the main immune cells that rush to the lungs to fight bacterial or fungal infections, a person with pneumonia would have high absolute neutrophil levels (Pagana et al., 2021). This patient has an active infection going on that will

				naturally increase this lab value.
Absolute lymphocytes	0.50 cells/microliter low	0.60 cells/microliter low	0.90-3.30 cells/microliter	Low absolute lymphocyte count can be due to the fact that the value of lymphocytes is low and has the same rationale as to why the count could be low.

Previous diagnostic prior to admission (ER, clinic etc.) if pertinent to admission diagnosis	Previous diagnostic results and correlation to client admission	Current Diagnostic Test & Purpose	Clients Signs and Symptoms	Results and correlate to client diagnosis and condition
N/A	N/A	9/12/25: Chest X-ray A chest X-ray examines your heart, lungs, and	Shortness of breath	There's increased cloudiness in the left lower lobe, which is partially

		bones using a concentrated radiation ray (Pagana et al., 2021). X-rays of the chest are rapid, non-invasive procedures. Chest X-rays assist medical professionals in diagnosing conditions that result in heart or lung problems.		obscuring the left hemidiaphragm. There also appears to be a small left-sided pleural effusion
N/A	N/A	9/12/25: CT Angio chest w/wo contrast with PP. This test shows detailed images of your organs and can reveal issues that may be going	Shortness of breath and recent thoracentesis	There are new small blood clots in the right lung, but there's no sign of acute strain on the right side of the heart. The

		on.		disease has progressed, with the masses in the left central lung and hilar region getting larger. There’s also more lymph node enlargement in the the mediastinum and a moderate amount of fluid has built up on the left side of the chest
N/A	N/A	9/13/25: Chest X-ray (comparing to 9/12) A chest X-ray	Concern for pneumothorax, no specific symptoms. Using for comparison to	There's a small amount of fluid on the left side of the chest (pleural

		examines your heart, lungs, and bones using a concentrated radiation ray (Pagana et al., 2021). X-rays of the chest are rapid, non-invasive procedures. Chest X-rays assist medical professionals in diagnosing conditions that result in heart or lung problems.	see progression	effusion), and more airspace showing up in the upper part of the left lung. Possible causes could be aspiration, collapsed lung tissue (atelectasis), or pneumonia. The mass in the left lung is also still visible.
N/A	N/A	9/14/25: Chest X-ray (comparing to 9/13)	Concern for pneumothorax, SOB	There are ongoing infiltrates affecting multiple areas of the lungs

				along with small amount of fluid around them. There is no sign of a collapsed lung.
N/A	N/A	9/15/25: Chest X-ray (comparing to 9/14) A chest X-ray examines your heart, lungs, and bones using a concentrated radiation ray (Pagana et al., 2021). X-rays of the chest are rapid, non-invasive procedures. Chest X-rays assist medical	Dyspnea	Progression of fluid around the left lung, along with new cloudy areas in the middle and lower parts of the lung. This could mean part of the lung isn't fully expanding, or it might be an infection like pneumonia

		professionals in diagnosing conditions that result in heart or lung problems.		
N/A	N/A	9/17/25: Chest XR (compare to 9/15) A chest X-ray examines your heart, lungs, and bones using a concentrated radiation ray (Pagana et al., 2021). X-rays of the chest are rapid, non-invasive procedures. Chest X-rays assist medical professionals in diagnosing conditions that	Post thoracentesis, no specific symptoms. Using for comparison.	There are cloudy areas in the left lung with shrinkage of the lung and a mediastinal shift from the right to the left. The lung mass is reaching toward the inner surface of the lung. Could be developing into pneumonia

		result in heart or lung problems.		
N/A	N/A	9/18/25: MRI brain without contrast	No symptoms, used for small cell lung cancer staging	There is no major pressure or shift in the brain. A small long-standing spot is seen. There is an old stroke in the right frontal lobe, along with advanced changes from long-term small blood vessel disease
N/A		9/21/25: Chest XR (compare to 9/17) A chest X-ray examines your heart, lungs, and	SOB	No major changes in the cloudy areas. There is shrinkage of the

		bones using a concentrated radiation ray (Pagana et al., 2021). X-rays of the chest are rapid, non-invasive procedures. Chest X-rays assist medical professionals in diagnosing conditions that result in heart or lung problems.		left lung, which may represent pneumonia related to the mass extending to the left hilum
N/A	N/A	9/22/25: CT Angio chest w/wo contrast with PP (comparing to 9/12) This test shows detailed images of your organs and	No symptoms. History of PE. Using for comparison.	Less blood flow is seen in the right upper lung. There are advanced emphysema changes with mucus in the

		can reveal issues that may be going on.		airways. The mass near the center of the left lung has grown, with more small cloudy spots in the left upper lung. The arteries in the left lung are narrowed. Fluid around both lungs has increased (more on the left), along with more lung collapse. The lymph nodes in the chest have also gotten larger.

Diagnostic Test Reference (1) (APA):

Cleveland Clinic. (2022). *Blood urea nitrogen (BUN) test | Cleveland clinic*. Cleveland Clinic. https://my.clevelandclinic.org/health/diagnostics/17684-blood-urea-nitrogen-bun-test

Cleveland Clinic. (2022, March 18). *Hypoalbuminemia: Causes, Symptoms, Treatment & Outlook*. Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/22529-hypoalbuminemia

Cleveland Clinic. (2023). *Lactic Acidosis: Symptoms, Causes, Treatment & What It Is*. Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/25066-lactic-acidosis

Jung, S. M., Kim, Y.-J., Ryoo, S. M., & Kim, W. Y. (2020). Relationship between low hemoglobin levels and mortality in patients with septic shock. *Acute and Critical Care*, *34*(2), 141–147. https://doi.org/10.4266/acc.2019.00465

Lymphopenia - Symptoms | NHLBI, NIH. (n.d.). Www.nhlbi.nih.gov. https://www.nhlbi.nih.gov/health/lymphopenia/symptoms

MedlinePlus. “Natriuretic Peptide Tests (BNP, NT-ProBNP).” *Medlineplus.gov*, 2023, medlineplus.gov/lab-tests/natriuretic-peptide-tests-bnp-nt-probnp/.

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2021). *Mosby’s diagnostic and laboratory test reference* (15th ed.). Mosby.

Yuan, S., Chen, Y., & Xie, L. (2024). Association between glucose levels at admission and outcomes of pneumonia: a systematic review and meta-analysis. *BMC Pulmonary Medicine*, *24*(1). https://doi.org/10.1186/s12890-024-03126-2

Active Orders

Active Orders	Rationale
Diet- modified texture, easy to chew, thin liquids	Aspiration precaution
IP consult to oncology	Pt has lung mass and a PE
OT/PT/ SLP evaluation	Generalized weakness and dysphagia
CT Angio chest w/wo contrast w PP	Post process of thoracentesis
Oxygen/Pulse Ox	Routine and pt experiencing shortness of breath
Daily weight and ambulation	CHF and evaluate patient mobility
Insert/maintain IV	Monitors patient and allows you to push medications. All patients must have an IV present. Routine.
Intake and output	Routine. Patient had a recent weight loss. Also has cancer.
Notify physician	S/S of bleeding, abnormal vital signs
Nursing communication	When meds are complete, offer prune juice for constipation, initiate apixaban education and distribute apixaban education materials, pt education to reduce/avoid foods that can result in constipation like red meat, fried and fatty foods, milk, and cheese
Incentive spirometer	Educate pt on how to use this device. Use

	every hour if patient is awake
Verify informed consent	For the thoracentesis procedure
RT therapy assessment	Evaluate patient respiratory status. Patient experiencing dyspnea and is diagnosed with pneumonia.
Up with assistance	Routine. Pt is weak and needs assistance
CPR full treatment	In case of emergency, pt is full code
CBC with diff, CMP lab, Mg lab	Check function of organs.
Nurse night call	If there is an improper IV use or problems that allow the IV to work properly.

Aerosol nebulizer	Treatment for pneumonia. Help improve lung expansion.
MDI treatment Rt subsequent	Evaluating the patient to assess the effectiveness of the initial MDI dose
RT assessment for albuterol and Ipratropium treatment plan	If there are changes, discontinue
Telemetry monitoring	High risk of cardiac/respiratory arrest, pt experienced episode of A-fib

Hospital Medications (Must List ALL)

Brand/ Generic	Albuterol (Proventil) nebulizer	Apixaban (Eliquis) tablet	Budesonide-formoterol fumate (Symbicort) inhaler	Empagliflozin (Jardiance) tablet	metoprolol succinate (Toprol-XL)

Dose, frequency, route	25mg, TID, PO	5mg, PO, BID	2 puffs, BID, PO	10mg PO, daily	50mg, PO, daily
Classification (Pharmacological and therapeutic and action of the drug	Pharmacological class: Adrenergic Therapeutic class: Bronchodilator (Jones and Bartlett, 2023).	Pharmacologic class: Factor Xa inhibitor Therapeutic class: Anticoagulant (Jones and Bartlett, 2023).	Pharmacological: Corticosteroid Therapeutic: Antiasthmati, anti-inflammatory (Jones and Bartlett, 2023).	Pharmacological class: Sodium glucose cotransporter 2 inhibitor Therapeutic class: Antidiabetic (Jones and Bartlett, 2023).	Pharmacological class: Beta1-adrenergic blocker Therapeutic class: Antianginal, antihypertensive (Jones and Bartlett, 2023).
Reason Client Taking	Wheezing, SOB	Prevent DVT, and treat PE	SOB, cough	Congestive heart failure	Heart failure
Two contraindications (pertinent to the client)	History of heart disease Paradoxical bronchospasm (Jones and Bartlett, 2023).	Active bleeding and liver impairment (Jones and Bartlett, 2023).	COPD exacerbations Eye disorders (history of cataracts) (Mayo Clinic, n.d.).	Diuretics Low blood pressure (Jones and Bartlett, 2023).	Bradycardia NSAIDs (NHS, 2022).
Two side effects or adverse effects (Pertinent to the client)	**1.** Chest pain (Jones and Bartlett, 2023). **2.** Cough (Jones and Bartlett,	Bleeding and hypotension (Jones and Bartlett, 2023).	Hypertension and increased cough (Jones and Bartlett, 2023).	Hypotension and upper respiratory tract infection (Jones and Bartlett, 2023).	Arrhythmias and chest pain (Jones and Bartlett, 2023).

	2023) >				
Key nursing assessment(s) prior to administration	Assess respiratory status Obtain history of asthma and COPD (Jones and Bartlett, 2023).	Check for medications that can contradict this medication Review labs (Jones and Bartlett, 2023).	Check allergies Assess respiratory status (Jones and Bartlett, 2023).	Check volume status Obtain serum creatinine level (Jones and Bartlett, 2023).	Assess cardiac function Assess vital signs Jones and Bartlett, 2023).

Brand/ Generic	Prednisone (Deltasone) tablet	Spironolactone (Aldactone) tablet	Acetaminophen (Tylenol) tablet	Benzonatate (Tessalon) capsule
Dose, frequency, route	40mg, PO, daily with breakfast	12.5mg PO, daily	650mg, PO, PRN q4hrs	100mg, PO, TID
Classification (Pharmacological and therapeutic and action of the drug	Pharmacological: Glucocorticoid Therapeutic: Immunosuppressant (Jones and Bartlett, 2023).	Pharmacological: Potassium-sparing diuretic Therapeutic: Diuretic (Jones and Bartlett, 2023).	Pharmacological: Nonsalicylate, para-aminophenol derivative Therapeutic: Antipyretic, nonopioid analgesic (Jones and Bartlett, 2022).	Pharmacological: Antitussive Therapeutic: Cough suppressant (MedlinePlus, n.d.).
Reason Client Taking	Reduce inflammation, suppress immune system	Heart failure	Pain	Cough
Two contraindications (pertinent to the client)	Active infections Congestive heart failure	High serum creatinine Hyperkalemia	Liver damage Hepatic impairment	Local anesthetics CNS depressants

	(Jones and Bartlett, 2023).	(Patibandla et al., 2023).	(Jones and Bartlett, 2023).	(MedlinePlus, n.d.)
Two side effects or adverse effects (Pertinent to the client)	1. Edema (Jones and Bartlett, 2023). 2. Hypernatremia (Jones and Bartlett, 2023).	Lethargy and dyspnea (Jones and Bartlett, 2023).	Constipation and pulmonary edema (Jones and Bartlett, 2023).	Headache and constipation (MedlinePlus, n.d.).
Key nursing assessment(s) prior to administration	1. Check medical history 2. Review current medication for drug interactions (Jones and Bartlett, 2023).	Assess vital signs and electrolytes (Jones and Bartlett, 2023).	Assess patient pain level (Jones and Bartlett, 2022). Assess the patient's allergies (Jones and Bartlett, 2022).	Assess respiratory status Check medical history (Jones and Bartlett, 2023).
Brand/ Generic	Calcium carbonate (TUMS) tablet	Guaifenesin-dextromethorphan (Robitussin) syrup	Magnesium hydroxide (Milk of Magnesium) suspension	Melatonin (Circadin) tablet
Dose, frequency, route	1,000mg q8hrs	5mL, PO, q4hrs	30mL suspension PRN	6mg, PO, PRN nightly
Classification (Pharmacological and therapeutic and action of the drug	Pharmacological: Calcium salts Therapeutic: Antacid, antihypermagnesemic, antihyperphosphate	Pharmacological: Expectorant Therapeutic: Expectorant	Pharmacological: Mineral Therapeutic: Electrolyte replacement (Jones and Bartlett,	Pharmacological: N-acetyl-5-methoxytriptamine Therapeutic: Acetamine (Jones and

	mic, antihypocalcemic, calcium replacement, cardiotonic (Jones and Bartlett, 2022).		2022).	Bartlett, 2022).
Reason Client Taking	Heart burn, indigestion	Cough	Constipation	Trouble sleeping
Two contraindications (pertinent to the client)	1. Hypercalcemia 2. Ventricular fibrillation (Jones and Bartlett, 2023).	Chronic cough and asthma (Jones and Bartlett, 2023).	Heart problems Respiratory depression (Jones and Bartlett, 2023).	Bleeding and diabetes (Jones and Bartlett, 2023).
Two side effects or adverse effects (Pertinent to the client)	1. Hypotension 2. Nausea (Jones and Bartlett, 2023).	Dyspnea and nausea (Jones and Bartlett, 2023).	Electrolyte imbalances Diarrhea (Jones and Bartlett, 2023).	Drowsiness and dry mouth (Jones and Bartlett, 2023).
Key nursing assessment(s) prior to administration	Monitor serum calcium levels (Jones and Bartlett, 2022).	Assess respiratory status Assess patient cough (Jones and Bartlett, 2023).	GI assessment (Jones and Bartlett, 2022). Bowel patterns (Jones and Bartlett, 2022).	Ask patient about sleeping patterns (Jones and Bartlett, 2022). Assess patient level of consciousness (Jones and Bartlett, 2022).

[redacted]

Brand/ Generic	Metoprolol tartrate (Lopressor) injection	Nitroglycerin (Nitrostat) tablet	Ondansetron (Zofran) tablet and injection	Polyethylene glycol (Glycolax)
Dose,	2.5mg, q6hrs, IV	0.4mg,	4mg, PO or	17g BID, PRN

frequency, route		sublingual, PRN	injection, q6hrs	
Classification (Pharmacological and therapeutic and action of the drug	Pharmacological: Beta1-adrenergic blocker Therapeutic: Antianginal, antihypertensive (Jones and Bartlett, 2022).	Pharmacological class: Nitrate Therapeutic class: Antianginal, vasodilator (Jones and Bartlett, 2023).	Pharmacological: Selective serotonin (5-HT3) receptor antagonist Therapeutic: Antiemetic (Jones and Bartlett, 2022).	Pharmacological: Osmotic bowel prep Therapeutic: Laxative (Jones and Bartlett, 2022).
Reason Client Taking	High blood pressure and heart failure	Chest pain	Nausea	Constipation
Two contraindications (pertinent to the client)	Heart failure Hypotension (Jones and Bartlett, 2023).	Cardiac conditions Other antihypertension drugs (Kim, 2023).	Bowel obstruction Allergies (Jones and Bartlett, 2023).	Electrolytes imbalances Heart conditions (Jones and Bartlett, 2023).
Two side effects or adverse effects (Pertinent to the client)	Fatigue Wheezing (Jones and Bartlett, 2023).	Arrythmias Pneumonia (Jones and Bartlett, 2023).	Constipation Chest pain (Jones and Bartlett, 2023).	Nausea Stomach pain (Jones and Bartlett, 2023).
Key nursing assessment(s) prior to administration	Monitor blood pressure (Jones and Bartlett, 2022). Monitor heart rate and respiratory rate (Jones and Bartlett, 2022).	Assess vital signs Assess breath and heart sounds (Jones and Bartlett, 2023).	Check if hypokalemia is present, this electrolyte imbalance should be corrected before this medication is	GI assessment Check electrolyte levels (Jones and Bartlett, 2023).

			administered (Jones and Bartlett, 2022). Assess for nausea and vomiting (Jones and Bartlett, 2022).	
Brand/Generic	Furosemide (Lasix) tablet	Losartan (Cozaar) tablet		
Dose, frequency, route	20mg, PO, discontinued	25mg, PO, discontinued		
Classification (Pharmacological and therapeutic and action of the drug	Pharmacological class: Loop diuretic Therapeutic class: Antihypertensive, diuretic (Jones and Bartlett, 2023).	Pharmacological: Angiotensin II receptor blocker (ARB) Therapeutic: Antihypertensive (Jones and Bartlett, 2023).		
Reason Client Taking	Heart failure	Hypertension		
Two contraindications (pertinent to the client)	Anuria Dehydration (Jones and Bartlett, 2023).	Angioedema Heart failure (Jones and Bartlett, 2023).		
Two side effects or adverse effects (Pertinent to the client)	Thromboembolism Orthostatic hypotension (Jones and Bartlett, 2023).	Diarrhea Hypotension (Jones and Bartlett, 2023).		
Key nursing assessment(s) prior to	Obtain patient weight	Assess blood pressure and pulse		

administration	Assess blood pressure (Jones and Bartlett, 2023).	Assess for signs of dehydration (Jones and Bartlett, 2023).		

Prioritize Three Hospital Medications

Medications	Why this medication was chosen	List 2 side effects. These must correlate to your client
1. Apixaban (Eliquis)	I chose this medication because it helps with DVTs and PEs, both which the patient is experiencing.	1. bleeding 2. hypotension (Jones and Bartlett, 2023).
2. Prednisone (Deltasone)	I chose this medication because it is being used to help treat pneumonia which is the main reason why the patient is in the hospital	1. hypernatremia 2. edema (Jones and Bartlett, 2023).
3. Empagliflozin (Jardiance) tablet	I chose this medication because the patient has a past medical history of heart failure, so it is important for the patient is be taking this medication.	1. hypotension 2. upper respiratory infection (Jones and Bartlett, 2023).

Medications Reference (1) (APA)

Benzonatate: MedlinePlus Drug Information. (n.d.). Medlineplus.gov. https://medlineplus.gov/druginfo/meds/a682640.html

Budesonide And Formoterol (Inhalation Route) Description and Brand Names - Mayo Clinic. (n.d.). Www.mayoclinic.org. https://www.mayoclinic.org/drugs-supplements/budesonide-and-formoterol-inhalation-route/description/drg-20068949

Jones & Bartlett Learning. (2022). *2023 Nurse's drug handbook* (22nd ed.).

Kim, K. H. (2023). *Nitroglycerin*. Nih.gov; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK482382/

Patibandla, S., Heaton, J., & Kyaw, H. (2023). *Spironolactone*. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK554421/

Taking metoprolol with other medicines and herbal supplements. (2022, March 15). Nhs.uk. https://www.nhs.uk/medicines/metoprolol/taking-metoprolol-with-other-medicines-and-herbal-supplements/

Physical Exam

HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is alert and oriented x4. He seems to be in mild distress due to his continuous coughing. Patient is well groomed and wears glasses. Patient is on standard precautions. Doesn't complain or having any concerns at the time of

Infection Control precautions: **Client Complaints or Concerns:**	assessment.
VITAL SIGNS: **Temp:** **Resp rate:** **Pulse:** **B/P:** **Oxygen:** **Delivery Method:**	0744 Temp: 97.4 degrees F Resp rate: 18 Pulse:92 BP: 106/74 O2: 94% on 2L of oxygen via nasal cannula 1100 Temp: 98 degrees F Resp rate: 18 Pulse: 92 BP: 100/75 O2: 95% on 2L of oxygen via nasal cannula
PAIN ASSESSMENT: **Time:** **Scale:** **Location:** **Severity:** **Characteristics:** **Interventions:**	1400: Patient states he is in no pain at the moment of assessment
IV ASSESSMENT: **Size of IV:** **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:** **Fluid Type/Rate or Saline Lock:**	Patient has a 20G IV in his right upper arm that is dated 9/13/25 and another 20G in his L lower arm dated 9/22/25. Both IV sites are clean, dry, and intact. They have transparency dressing on and are both patent. No signs of erythema or drainage. Both IVs are saline lock.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Skin color is appropriate for the patient. Patient has thin, wrinkly skin. Some bruising along the arms. Has a wound on the left elbow and a pressure injury on the medial sacrum. No other rashes or lesions are present. Skin was warm to touch. Normal skin turgor, releases right back. Patient has a Braden score of 34 and has no drains.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:**	Patient head is symmetrical. Trachea is midline without deviation. No noted nodules. Bilateral carotid pulses are palpable and 2+. Hair is evenly distributed. No lesions present/ Bilateral sclera is white, cornea is clear bilaterally, and conjunctiva

Teeth:	is pink bilaterally. No visible drainage from either eye. PERRLA bilaterally. Nose is symmetrical. EOMs intact bilaterally. Patient has a few missing teeth. Septum midline, no bleeding visible. Frontal sinuses are nontender to palpation. No deformities of the ears. No lumps or lesions of the ears. I did not assess the inside of the patient ears.
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:**	Heart sounds are normal rhythm and rate. S1 and S2 are heard without any murmurs, gallops, or rubs present. Peripheral pulses are palpable 2+ bilaterally. Capillary refills are less than 3 seconds. No neck vein distention was observed. Patient has no edema in any extremities.
RESPIRATORY: **Accessory muscle use: Y☒ N ☐** **Breath Sounds: Location, character**	Patient appears in mild distress, so he is using accessory muscles. Breath sounds are clear but diminished in all lobes. Seems a bit more decreased lung sounds in the left lower lobe.
GASTROINTESTINAL: **Diet at home:** **Current Diet:** **Is Client Tolerating 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:**	Patient does not have a specific diet at home. He is currently on a modified texture, easy to chew. He is 5’11 and weighs 137 pounds. Bowel sounds are active in all four quadrants. Last bowel movement was a few days ago. No distention, incisions, scars, wounds, or drains present upon inspection. Patient does not have an ostomy, nasogastric, or feeding tubes. No pain or masses felt upon palpation.
GENITOURINARY: **Color:** **Character:**	Urine is appropriate color, yellow, clear and pale. No cloudiness or foul odor associated. Patient has voided 400 mL of urine via foley catheter. Patient

Quantity of urine: **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** **Size:**	does not have any pain with urination. No dialysis. Inspection of the genitals were not assessed.
Intake (in mLs) **Output (in mLs)**	0816: PO 472 mL 0600: 100 mL Output: 400 mL via catheter
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☐ N☐** **Fall Score:** **Activity/Mobility Status:** **Activity Tolerance:** **Independent (up ad lib)** **Needs assistance with equipment** **Needs support to stand and walk**	All extremities have full range of motion but has some general weakness. Hand grips and pedal pushes show some weakness and limited strength. I did not assess balance and gait due to the patient already ambulating with physical therapy. Patient was able to ambulate. Patient uses a cane and walker at home. He will need assistance with ADLs. Patient is a high fall risk with a score of 92.
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Patient can move all extremities but has some slowness due to generalized weakness. PERLA. Patient has equal strength in all extremities. He is A/Ox4. Mental status is appropriate for the patient. Normal speech with no deficits. LOC is normal and has full LOC.
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):**	Patient likes to watch TV as a coping method. He enjoys sitting around and relaxing. Developmental level is appropriate for patient. Patient is Catholic and says that he doesn't go to church much anymore. "I'm not a serious religious person". He has two daughters. One daughter is more of his support system than the

	other. They all live fairly close of each other.

Discharge Planning

Discharge location: Acute Rehab Unit

Home health needs: occupational therapy, 24hr care, physical therapy

Equipment needs: front wheeled walker

Follow up plan: No follow up plan has been initiated due to the patient not being medically ready to be discharged. You would want to follow up with the patient on cancer progress and strength progress.

Education needs: How to use a front wheel walker, safety education

Nursing Process
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	**Outcome Goal (1 per dx)**	**Interventions (2 per goal)**	**Evaluation of interventions**
1. Impaired gas exchange related to medical diagnosis of	It is important to remember the ABCs and ensure the patient has an	Patient will not experience dyspnea at the time of	1. Ambulate patient to help promote oxygen	Patient was cooperative about the interventions. He preferred

pneumonia as evidence by positive X-ray of pleural effusion shown and patient presenting a cough and shortness of breath. (Phelps, 2023).	efficient airway.	discharge (Phelps, 2023).	distribution and improve breathing patterns (Phelps, 2023). **2.** Elevate the head of the bed to place the patient in the best position to expand the chest to enhance gas exchange (Phelps, 2023).	the head of the bed to be elevated and mentioned that it felt better than lying down. He also was able to get up and ambulate fairly well with physical therapy.
2. Imbalanced nutrition related to decreased appetite as evidence by patient having a 30-pound weight loss and patient having neuroendocrine carcinoma (Phelps, 2023).	I chose this diagnosis because the patient is malnourished. The weakness and fatigue can be from the loss of proper nutrition and cancer. It is important for the patient to be receiving proper nutrition.	Patient will show weight gain by discharge (Phelps, 2023).	1. Patient will eat all meals of the day as tolerated (Phelps, 2023). 2. Increase calorie intake for the patient (Phelps, 2023).	No evaluation was able to be done for the outcome goal since the patient was still at the hospital. He did eat all meals while I was in attendance. He tolerated the meals well.
3. Activity Intolerance related to decreased oxygenation and general weakness as evidence by dyspnea on exertion and wounds present on the	I chose this diagnosis because the patient does have do much mobility and has a wound on his medical sacrum. He is also at risk for developing more along with also worsening his dyspnea.	Patient will be able ambulate down the hall and back without dyspnea (Phelps, 2023).	**1.** Patient will sit in his chair twice a day (Phelps, 2023). **2** Patient will ambulate down the hall and back once a day (Phelps, 2023).	Patient tolerated the interventions. He was able to ambulate down the hall and back slowly. He also got up at least once in his chair while I was there.

patient (Phelps, 2023).				

Nursing Process Prioritization	Rationale
1. Impaired gas exchange related to medical diagnosis of pneumonia as evidence by positive X-ray of pleural effusion shown and patient presenting a cough and shortness of breath. (Phelps, 2023).	I chose this diagnosis because it is important to remember the ABCs and ensure the patient has an efficient airway. Also because the patient has pneumonia and needs to have proper lung expansion as much as possible to help treat the diagnosis.
2. Activity Intolerance related to decreased oxygenation and general weakness as evidence by dyspnea on exertion and wounds present on the patient (Phelps, 2023).	I chose this diagnosis because the patient does have do much mobility and has a wound on his medical sacrum. He is also at risk for developing more along with also worsening his dyspnea.
3. Imbalanced nutrition related to decreased appetite as evidence by patient having a 30-pound weight loss and feeling sick from patient experiencing cancer (Phelps, 2023).	I chose this diagnosis because the patient is malnourished. The weakness and fatigue can be from the loss of proper nutrition and cancer. It is important for the patient to be receiving proper nutrition.

Other References (APA)

Phelps, L.L. (2023). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer