N431 Care Plan # 2

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission	**Patient Initials**	**Age**	**Gender**
10/17/20	J.L.	76	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White	School Counselor (retired)	Married	Sulfa, lorazepam, pravastatin, simvastatin.
Code Status	**Height**	**Weight**	
Full Code	144.7 cm	39.7 kg	

Medical History (5 Points)

Past Medical History: Abnormal stress test, anemia, anginal pain, anxiety, Barrett's esophagus, bilateral carotid stenosis, black stools, bradycardia, coronary artery disease, central sleep apnea, chronic chest pain, chronic ischemic heart disease, chronic pain, chronic use of opiates for therapeutic purpose, chronotropic incompetence, congestive heart failure, chronic obstructive pulmonary disease, coronary artery vasospasm, diastolic dysfunction, degenerative joint disease (multiple sites), esophageal dysmotility, exertional dyspnea, fall risk, functional gait abnormality, hammertoe, hiatal hernia, bilateral knee replacement, history of pulmonary embolism, hyperlipidemia, hypertensive cardiovascular disease, hypothyroidism, irritable bowel syndrome, idiopathic progressive neuropathy, insomnia, iron deficiency anemia, jaw pain, kyphoscoliosis, left facial pain, lumbar radiculopathy, major neurocognitive disorder possibly related to vascular disease, mass of left foot, memory changes, mitral regurgitation, mitral valve prolapse, myalgia, myofascial pain, onychomycosis, open-angle glaucoma, osteoporosis, bilateral plantar fasciitis, history of premature ventricular contractions, peripheral vascular disease, Raynaud's phenomenon, right shoulder pain, restless legs syndrome, sacroiliitis, secondary adrenal insufficiency, statin intolerance, Takotsubo cardiomyopathy, thoracic compression fracture, temporomandibular joint syndrome, left toe pain, trochanteric bursitis,

vitamin B-12 deficiency, vitamin D deficiency, wound eschar of foot, diarrhea, hypertension, hypotension, pneumonia, rib pain.

Past Surgical History: Arthroplasty knee revision, sacroiliac joint injection with fluoroscopy, transforaminal lumbar epidural steroid injection with fluoroscopy, trigger point injection, trochanteric bursa injection, sacroiliac joint injection with fluoroscopy, esophagogastroduodenoscopy, cardiac catheterization, thoracoscopy, emergency airway insertion, withdrawal of arterial blood, appendectomy, cataract surgery, cholecystectomy, colonoscopy, complete thyroidectomy, inferior vena cava filter placement, hammer toe operation, hysterectomy, temporomandibular joint manipulation requiring anesthesia, retinal surgery on left eye, bilateral total knee arthroplasty, vitrectomy.

Family History: Both of J.L.'s parents are deceased. Her mother had a history of uterine cancer, and her father was an alcoholic.

Social History (tobacco/alcohol/drugs): The client denies past or present use of tobacco, alcohol, or illicit drugs including marijuana.

Assistive Devices: This client uses a walker for mobility.

Living Situation: J.L. lives at home with her husband and has regular interaction with her daughter Kathy.

Education Level: This client is unable to independently recall her education history beyond that she had attended college to be a counselor. She could not tell me what school she attended or what degree she had attained. Chart review of her neuropsychiatric consult notes from two years prior reveal that she had attained a master's degree in counseling at Eastern Illinois University. While her education level is not a hurdle for teaching, her memory and cognitive deficits are problems that probably severely limit what she can effectively be taught.

Admission Assessment

Chief Complaint (2 points): Weakness

History of present Illness (10 points):.

This client has a history of neurocognitive deficit and is a poor historian. She is unable to recall what problem brought her to Sarah Bush Lincoln without prompting. When she receives a prompt that she had complaints of weakness and shortness of breath, J.L. agrees that she had been feeling weak. The client denies feeling any weakness or shortness of breath at the time of assessment. She is unable to decide when the issue began and estimates that she has been hospitalized for about five days. To ascertain information about the characteristics or qualities of her weakness, the client was asked how her weakness made her feel. J.L. responds only that "I felt weak." The client seems confused by questions about aggravating or relieving factors and responds only with vocalized pause. J.L. denies receiving treatment for her weakness prior to this stay. She also has difficulty with discussing her weakness in terms of severity. This student asks her as an example if it was the weakest she has ever felt. To this question, the client responds, "I'm not sure."

Due to the client's cognitive deficits, a review of her chart was performed to gather data. At the emergency department, J.L. was seen by Dr. Novak. Per Dr. Novak's note, information was primarily obtained from the client's daughter who was with J.L. at the time. Two days ago, the client began experiencing unusual weakness, lethargy, and a productive cough with yellow sputum. Her daughter checked her pulse oximetry reading at home, which she noted as varying between 85-87% on room air. At the time of their encounter, J.L. complained to Dr. Novak of weakness and malaise. She was afebrile and had no loss of smell or taste. No aggravating factors could be gleaned from the chart, but Dr. Novak noted that administration of O2 at 2L by nasal

cannula improved J.L.'s weakness and hypoxia. According to her daughter, she was essentially at baseline after receiving supplemental O2. Based on the client's chest x-ray results, Dr. Novak suspected community acquired pneumonia and recommended admission to hospitalist care.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Community acquired pneumonia.

Secondary Diagnosis (if applicable): N/A

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

Pneumonia as a general term refers to the inflammation of lung parenchyma, usually secondary to infection by fungi, viruses, bacteria, or mycobacteria (Hinkle & Cheever, 2018). The condition is common in the United States and represents a leading cause of death in older adults (Capriotti & Frizzell, 2016). Community-acquired pneumonia (CAP) is defined by its onset in relation to the onset of hospitalization; if the disease process begins in the community or sooner than 48 hours following hospital admission, it is considered CAP (Hinkle & Cheever, 2018). Several microorganisms are frequently associated with the condition, including *Streptococcus pnuemoniae*, *Mycoplasma pnumoniae*, *Staphylococcus aureus*, *Chlamydophila pneumoniae*, *Haemophilus influenzae*, and *Legionella* spp. (Hinkle & Cheever, 2018). However, in about half of cases, a causative organism is not identified (Hinkle & Cheever, 2018).

The most common pathophysiological basis of pneumonia involves the inhalation of droplets containing an infectious organism, which permits entry into the lung tissue via the respiratory tract (Capriotti & Frizzell, 2016). Other routes of entry, such as blood-borne pathogens entering lung tissue via the pulmonary capillaries are possible (Hinkle & Cheever, 2018). Whatever the origin, once infection is established, inflammation of the lower respiratory tract leads to several changes that give rise to the clinical manifestations and symptoms of the

condition (Capriotti & Frizzell, 2016). First, gas diffusion is inhibited by the production of exudate secondary to the inflammatory reaction at the alveoli (Hinkle & Cheever, 2018). Neutrophils migrate to the affected areas, where they attempt to digest the invasive microorganisms (Capriotti & Frizzell, 2016). However, when this occurs the neutrophils occupy space in the alveoli that should normally be filled with air (Hinkle & Cheever, 2018). Furthermore, the goblet cells of the respiratory tract are overstimulated by inflammation and secrete excess mucus (Capriotti & Frizzell, 2016). The combination of these secretions and of mucosal edema leads to decreased oxygen tension in the alveoli due to the partial blockage of either the bronchi or alveoli (Hinkle & Cheever, 2018). Essentially, some alveoli will fail to overcome the exudate and are be unable to open and close; the action of alveoli that open against the exudate may be auscultated as crackles (Capriotti & Frizzell, 2016). The sum effect of these pathophysiological changes is that both ventilation and perfusion are compromised (Hinkle & Cheever, 2018). Because some blood will pass through the under-ventilated areas of the lung as it completes its circuit, poorly oxygenated blood is returned to the heart and distributed to the body through arterial circulation (Hinkle & Cheever, 2018).

The diagnosis of pneumonia begins with taking a patient history and performing a physical exam, but also includes imaging studies and laboratory testing (Hinkle & Cheever, 2018). The chest x-ray is a key tool for the diagnosis of pneumonia and allows providers to visualize abnormalities in the lung such as inflammation or the accumulation of fluid. (Capriotti & Frizzell, 2016; Pagana et al., 2019). Sputum cultures can be used to detect infectious microorganisms in the respiratory tract and identify which antibiotics they may be susceptible to (Capriotti & Frizzell, 2016). An increase in leukocytes, especially neutrophils, on a white blood cell count with differential suggests inflammation or an infectious process (Pagana et al., 2019).

A blood culture may be used to check for bacteremia secondary to pneumonia (Hinkle & Cheever, 2018). During this hospital stay, J.L. received a chest x-ray, a complete blood count with differential, and a blood culture. The emergency department physician caring for J.L. believed that the image of her left lung appeared hazy, which caused him to suspect CAP. The client's complete blood count revealed an elevated percentage of neutrophils on the white blood cell differential, which indicates an infectious or inflammatory process (Pagana et al., 2019). A sputum culture was not performed on this client, and her blood culture results were negative.

The clinical manifestations of pneumonia depend on factors such as the causative microorganism and the presence of underlying conditions (Hinkle & Cheever, 2018). Typically, the onset of bacterial pneumonia is sudden and begins with a cough, fever, and chills (Capriotti & Frizzell, 2016). The patient may also exhibit pleuritic chest pain, tachypnea, shortness of breath, and the use of accessory muscles during respiration (Hinkle & Cheever, 2018). Some potential symptoms are non-specific, and include myalgias, headache, abdominal pain, nausea, and vomiting (Capriotti & Frizzell, 2016). Poor appetite, fatigue, and hypoxemia may also occur (Hinkle & Cheever, 2018). A classic finding is the auscultation of crackles in the lungs (Hinkle & Cheever, 2018; Capriotti & Frizzell, 2016). Per the emergency department physician's notes, J.L. initially experienced weakness, hypoxia, shortness of breath, and a productive cough. At the time of our encounter, this student notes fine crackles in J.L.'s left lower lobe on auscultation. At breakfast, she consumes only half of the food offered. Furthermore, the onset of J.L.'s symptoms was sudden; per the client's daughter, J.L. had no symptoms on the day before admission. As previously discussed, this pattern of onset is consistent with a typical presentation of bacterial pneumonia (Hinkle & Cheever, 2018).

The administration of antibiotics and maintenance of adequate oxygenation are cornerstone elements of the treatment of bacterial pneumonia (Capriotti & Frizzell, 2016). In practice, antibiotic therapy is initiated in about half of CAP cases without identifying a causative organism (Hinkle & Cheever, 2018). Oxygenation is promoted primarily by positioning in the high-fowler's position and the administration of supplemental oxygen if necessary (Capriotti & Frizzell, 2016; Holman et al., 2019). If the patient is dehydrated, intravenous fluids may be administered (Capriotti & Frizzell, 2016). If indicated, steroids may be used to reduce airway inflammation and antipyretics can be given to reduce fever (Capriotti & Frizzell, 2016; Hinkle & Cheever, 2018; Holman et al., 2019). J.L. received supplemental oxygen in the emergency department to treat her hypoxia, which she was subsequently weaned off. In her case, a causative organism was not identified. However, she is receiving intravenous azithromycin and ceftriaxone to treat a potential bacterial infection. The client was also receiving a continuous intravenous infusion of 0.9% NaCl solution to correct her hypotension, however this were discontinued during this student's shift. J.L. is also taking oral prednisone while at Sarah Bush Lincoln Health Center. However, this student notes that the client was taking this medication at home prior to admission. Thus, while prednisone may be beneficial for patients with pneumonia, J.L.'s use of it is incidental.

Pathophysiology References (2) (APA):

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

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

Holman, H. C., Williams, D., Johnson, J., Ball, B., Wheless, L., Leehy, P., & Lemon, T. (2019). *RN adult medical surgical nursing* (11th ed.). Assessment Technologies Institute.

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). *Mosby's diagnostic & laboratory test reference* (14th ed.). Elsevier.

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 (x10^6/mcL)	3.8-5.41	3.68	3.46	This client has a history of anemia. Anemia is associated with a decreased RBC count (Pagana et al., 2019).
Hgb (g/dL)	11.3-15.2	10.6	10.0	This client has a history of anemia. Anemia is associated with decreased hemoglobin levels (Pagana et al., 2019).
Hct (%)	35.2-45.3	31.5	29.9	This client has a history of anemia. Anemia is associated with a decreased hematocrit (Pagana et al., 2019).
Platelets (k/mcL)	149-393	197	182	N/A
WBC (k/mcL)	4.0-11.7	9.9	5.9	N/A
Neutrophils (%)	45.3-79	81.4	60.3	Elevated neutrophils are associated with inflammation and infection (Pagana et al., 2019). Neutrophils specifically are involved in the disease process of pneumonia (Hinkle & Cheever, 2018). This client has a diagnosis of community-acquired pneumonia.
Lymphocytes (%)	11.8-45.9	7.7	17.3	Leukocyte differential values are expressed as a percentage in a differential that must total 100%. If one leukocyte value is elevated, one or

				more of the values must account for a smaller portion of the differential as a mathematical consequence. J.L.'s neutrophil count is elevated. Other white blood cells, including lymphocytes, must then account for a smaller proportion of the differential.
Monocytes (%)	4.4-12.0	6.2	7.4	N/A
Eosinophils (%)	0.0-6.3	4.5	6.0	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- (mmol/L)	136-145	139	143	N/A
K+ (mmol/L)	3.5-5.1	3.8	4.1	N/A
Cl- (mmol/L)	98-107	104	111	Increased levels of chloride are associated with receiving excess normal saline and with anemia (Pagana et al., 2019). J.L. received a continuous 0.9% NaCl infusion during her stay, and has a history of anemia. Pagana et al. (2019) further note that shifts in chloride typically accompany shifts in sodium or bicarbonate levels. During her stay, J.L.'s sodium level increased from 139 mmol/L to 143 mmol/L.
CO2 (mmol/L)	21-31	30	27	N/A
Glucose (mg/dL)	74-100	90	75	N/A

BUN (mg/dL)	7-25	19	14	N/A
Creatinine (mg/dL)	0.7-1.3	0.87	0.74	N/A
Albumin (g/dL)	3.5-5.2	3.3	N/A	N/A
Calcium (mg/dL)	8.6-10.3	8.0	7.5	Decreased levels of calcium are associated with vitamin D deficiency and the use of anticonvulsants, aspirin, corticosteroids, or magnesium salts (Pagana et al., 2019). J.L. has a history of vitamin D deficiency, and takes pregabalin, aspirin, prednisone, and magnesium oxide.
Mag (mg/dL)	1.6-2.4	N/A	N/A	N/A
Phosphate (mg/dL)	3.0-4.5	N/A	N/A	N/A
Bilirubin (mg/dL)	0.3-1.0	0.3	N/A	N/A
Alk Phos (unit/L)	34-104	60	N/A	N/A
AST (unit/L)	13-39	15	N/A	N/A
ALT (unit/L)	7-52	5	N/A	Low ALT is associated with frailty (Peltz-Sinvani et al., 2016). J.L. is physically slight, with low muscle mass and little fat. It should also be noted that the reference range for ALT varies by source. While 5 units/L is lower than expected by the reference range used at Sarah Bush Lincoln Health Center, Pagana et al. (2019) provide a reference range of 4-36 units/L.
Amylase (unit/L)	30-220	N/A	N/A	N/A
Lipase (unit/L)	11-82	N/A	N/A	N/A
Lactic Acid (mmol/L)	0.5-2.0	N/A	0.9 (Taken	N/A

			10/18/20)	
Troponin (ng/mL)	0.0-0.03	0.01	N/A	N/A
CK-MB (ng/mL)	0.6-6.3	N/A	N/A	N/A
Total CK (Intl Unit/L)	30-223	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	0.86-1.14	N/A	N/A	N/A
PT (seconds)	11.9-15.0	N/A	N/A	N/A
PTT (seconds)	22.6-35.3	N/A	N/A	N/A
D-Dimer (mcg/ mL)	0.0-0.62	N/A	N/A	N/A
BNP (pg/L)	0-100	354	N/A	An elevated BNP is associated with congestive heart failure (Pagana et al., 2019). J.L. has a diagnosis of congestive heart failure.
HDL (mg/dL)	>55	N/A	N/A	N/A
LDL (mg/dL)	<130	N/A	N/A	N/A
Cholesterol (mg/ dL)	<200	N/A	N/A	N/A
Triglycerides (mg/dL)	35-135	N/A	N/A	N/A
Hgb A1c (%)	4-5.9	N/A	N/A	N/A
TSH (mcIU/mL)	0.45-5.33	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	"low-yellow";	N/A	N/A	N/A

	"low-clear"			
pH	5.0-8.0	N/A	N/A	N/A
Specific Gravity	1.005-1.034	N/A	N/A	N/A
Glucose	"Low-normal"	N/A	N/A	N/A
Protein	"Low-negative"	N/A	N/A	N/A
Ketones	"Low-negative"	N/A	N/A	N/A
WBC (per HPF)	< or = 5	N/A	N/A	N/A
RBC (per HPF)	0-3	N/A	N/A	N/A
Leukoesterase	"Low-negative"	N/A	N/A	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	N/A	N/A
PaO2 (mm Hg)	80-100	N/A	N/A	N/A
PaCO2 (mm Hg)	33-45	N/A	N/A	N/A
HCO3 (mEq/L)	21-28	N/A	N/A	N/A
SaO2 (%)	95-100	N/A	N/A	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	N/A	N/A

Blood Culture	Negative	Negative (results on 10/18/20)	N/A	N/A
Sputum Culture	Negative	N/A	N/A	N/A
Stool Culture	Negative	N/A	N/A	N/A

Lab Correlations Reference (APA):

GlobalRPh. (2017). *Laboratory values*. https://globalrph.com/laboratory-values/

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

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). *Mosby's diagnostic & laboratory test reference* (14th ed.). Elsevier.

Peltz-Sinvani, N., Klempfner, R., Ramaty, E., Sela, B. A., Goldenberg, I., & Segal, G. (2016). Low ALT levels independently associated with 22-year all-cause mortality among coronary heart disease patients. *Journal of General Internal Medicine*, *31*(2), 209-214. https://doi.org/10.1007/s11606-015-3480-6

Sarah Bush Lincoln. (2020). Laboratory values. *Cerner PowerChart*. Cerner.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

Chest X-ray (10/17/20)

The results of this chest x-ray (CXR) were compared against a previous CXR taken on 5/17/20. The interpreting radiologist, Dr. Aziz Ahmed, indicated that J.L.'s heart size was normal, her lungs were clear, her osseous structures were intact, and that no pneumothorax or pleural effusion was visible. His impression was that the results did not indicate that this client was experiencing any acute cardiopulmonary process. However, Dr. Ahmed did note that the exam

was limited by J.L.'s kyphosis and rotation. In contrast, Dr. Novak felt that the image of J.L.'s left lung featured a "haziness", which in turn caused him to suspect pneumonia.

Electrocardiogram (10/17/20)

The results of this electrocardiogram (EKG) were compared against a previous EKG taken on 6/30/20. On the EKG taken 10/17/20, Dr. Novak noted a normal sinus rhythm with a rate of 87 beats per minute. He additionally noted non-specific abnormalities in J.L.'s ST segment and T wave. The ST segment is not elevated or depressed. These abnormalities represent a change since the EKG taken on 6/30/20.

Diagnostic Test Correlation (5 points):

Chest X-ray (10/17/20)

The CXR is a radiographic imaging technique that allows the visualization of the heart, lungs, and surrounding structures (Pagana et al., 2019). CXR images can help providers detect abnormalities in the cardiac and pulmonary systems such as tumors, inflammation, and the accumulation of fluid or air (Pagana et al., 2019). Other problems can also be seen using a CXR, including diaphragmatic hernias, abnormal heart size, and vertebral or thoracic fractures (Pagana et al., 2019). The ability of the CXR to identify inflammation of the lung makes it an important tool for the diagnosis of pneumonia (Pagana et al., 2019; Capriotti & Frizzell, 2016). This test was indicated for J.L. based on her clinical presentation, which included a productive cough, hypoxia, and shortness of breath. Furthermore, this client has an extensive history of cardiac and pulmonary problems, including congestive heart failure and chronic obstructive pulmonary disease. Dr. Novak believed that J.L.'s left lung appeared hazy on her CXR image, which he felt supported a diagnosis of CAP.

Electrocardiogram (10/17/20)

The EKG is an electrodiagnostic study that generates a graphical representation of the heart's electrical activity (Pagana et al., 2019). The graph of an EKG features characteristic waves and intervals that reflect the different stages of the cardiac cycle (Pagana et al., 2019). This technique can be used in the diagnosis of a variety of conditions affecting the heart, which manifest as deviations from normal rhythm, wave patterns, interval duration, or heart rate (Pagana et al., 2019). Examples of conditions associated with EKG abnormalities include cardiac arrhythmias, myocardial infarction or ischemia, conduction defects, ventricular hypertrophy, and electrolyte imbalances (Pagana et al., 2019). This test was indicated for J.L. based on her clinical presentation and medical history. Weakness, shortness of breath, and hypoxia are associated with myocardial infarction (Hinkle & Cheever, 2018). Furthermore, J.L. has an extensive cardiac history that includes an abnormal stress test, anginal pain, bilateral carotid stenosis, chronic ischemic heart disease, chronotropic incompetence, congestive heart failure, coronary artery disease, hypertensive heart disease, mitral valve regurgitation, and mitral valve prolapse. Given J.L.'s history and presentation, it is reasonable to consider cardiac involvement. Although Dr. Novak noted non-specific abnormalities of J.L.'s ST segment and T wave on her EKG, he further remarked that the ST segment was not elevated or depressed. Moreover, J.L.'s troponin level was within normal limits. Ultimately, myocardial infarction was not suspected, and no further cardiac workup was performed as of the time of this student's encounter with J.L.

Diagnostic Test Reference (APA):

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

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). *Mosby's diagnostic & laboratory test reference* (14th ed.). Elsevier.

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

Home Medications (5 required)

Brand/Generic	Lyrica/ pregabalin	Bentyl/ dicyclomine hydrochloride	Requip/ ropinirole hydrochloride	Protonix/ pantoprazole sodium	Colace/ docusate sodium
Dose	75 mg	20 mg	1 mg	40 mg	100 mg
Frequency	1 capsule daily	1 tablet daily	1 tablet daily	1 tablet daily	1 tablet daily
Route	PO	PO	PO	PO	PO
Classification	Anticonvulsant	Antispasmodic	Antidyskinetic	Proton Pump Inhibitor	Laxative
Mechanism of Action	Pregabalin is thought to inhibit the release of neurotransmitters involved in pain sensation and seizure activity through the modulation of calcium channel function in the CNS.	Dicyclomine relaxes smooth muscles and reduces biliary, GI, and GU tract secretions by inhibiting the muscarinic action of acetylcholine at postganglionic parasympathetic receptors in the secretory glands, smooth muscles, and CNS.	Ropinirole inhibits the firing of striatal cholinergic neurons by stimulating dopamine type 2 receptors and in the brain and acting as an agonist at the peripheral dopamine type 2 receptors. By doing this, alterations in voluntary muscle movement are controlled.	Pantoprazole inhibits the secretion of gastric acid by blocking the exchange of intracellular hydrogen ion and extracellular potassium ion in the gastric parietal cells. Because the entry of hydrogen ion in to the stomach is inhibited, so too is the formation of hydrochloric acid in the stomach.	Colace decreases the surface tension between oil and water in feces, which allows fluid to more easily penetrate stool, and softens feces.
Reason Client Taking	J.L. has a history of Restless Legs Syndrome.	J.L. has a history of irritable bowel	J.L. has a history of Restless Legs Syndrome.	J.L. has a diagnosis of Barrett's Esophagus	J.L. takes docusate sodium as a treatment for constipation.

		syndrome.			
Contraindications (2)	(1) Pregabalin is contraindicated in patients with a hypersensitivity to pregabalin or its components. (2) No other contraindications are identified. However, taking this medication with other CNS depressants can cause somnolence.	(1) Angle-closure glaucoma (2) Hepatic disease.	(1) Hypersensitivity to ropinirole or to its components (2) No other contraindications are identified. However, concurrent use of ethinyl estradiol may reduce the clearance of ropinirole.	(1) Concurrent therapy with products containing rilpivirine. (2) Hypersensitivity to pantoprazole, substituted benzimidazoles, or their components.	(1) Fecal impaction (2) Hypersensitivity to docusate salts or their components.
Side Effects/Adverse Reactions (2)	(1) Amnesia (2) Ventricular fibrillation	(1) Syncope (2) Photophobia	(1) Abdominal pain (2) Acute coronary syndrome	(1) Elevated serum creatinine level (2) Bronchitis	(1) Palpitations (2) Muscle weakness
Nursing Considerations (2)	(1) If this medication is discontinued, it should be stopped gradually over 1 week to avoid seizure activity, headache, insomnia, and GI symptoms. (2) Patients should be closely watched for suicidal thoughts or behavior, particularly when treatment is started or the dosage is changed.	(1) This drug can cause chronic constipation and fecal impaction when taken long-term. The patient should be assessed for these problems and the nurse should perform corrective measures if prescribed and appropriate. (2) Elderly patients should be monitored for delirium and psychosis. If these occur, notify the prescriber and anticipate that the drug will be discontinued.	(1) The patient should be assessed for excessive sedation throughout therapy; this problem can happen as late as 1 year after initiating ropinirole therapy. (2) The patient should be monitored for hallucinations if they have Parkinson's disease, are elderly, or take levodopa.	(1) Because proton pump inhibitors increase the risk of osteoporosis-related fractures of the hip, spine, and wrist, the patient should be monitored for bone fractures. (2) *Clostridium difficile* associated diarrhea can occur in patients taking pantoprazole even without concurrent antibiotic therapy. The patient should be monitored for watery diarrhea. If this occurs, notify the provider and expect to withhold pantoprazole and treat for *Clostridium difficile* and related complications.	(1) Long-term or excessive use of docusate can lead to laxative dependence, electrolyte imbalances, osteomalacia, steatorrhea, and vitamin and mineral deficiencies. (2) Women with anorexia nervosa, depression, or personality disorders should be assessed for laxative abuse syndrome.
Key Nursing Assessment(s)/Lab(s) Prior to	This medication is associated with leukopenia,	Because dicyclomine can increase	This medication is associated with orthostatic	This medication is associated with nephritis,	Because patients taking this medication long term can develop electrolyte

Administration	thrombocytopenia, and acute renal failure. Therefore, prior to beginning therapy, the nurse should review the client's platelets, leukocytes, BUN, and creatinine. These labs should also be checked throughout therapy.	heart rate, the client should be assessed for tachycardia prior to administration.	hypotension, tachycardia, and elevated BUN. Prior to initiating therapy, BUN, pulse, and blood pressure should be checked.	hepatotoxicity, hyponatremia, hypomagnesemia, hyperuricemia, elevated triglycerides, hypercholesterolemia, and hyperlipidemia. Therefore, prior to initiating therapy, liver enzymes as well as BUN and creatinine should be checked. The patient should also have an electrolyte panel and lipid panel performed. These labs should also be checked throughout therapy.	imbalances, electrolyte levels should be checked in these clients.
Client Teaching needs (2)	(1) The patient should be instructed not to stop taking this medication abruptly. (2) The client should be advised to contact their provider if they experience changes in vision, unexplained muscle pain, tenderness, or weakness particularly if these symptoms are accompanied by fever or malaise.	(1) This medication should be stored in a tightly sealed container, kept at room temperature, and protected from moisture and direct light. (2) The patient should be advised not to take antacids or antidiarrheal medication within 2 hours of taking dicyclomine.	(1) The patient should be instructed to take this medication with food to decrease the risk of adverse GI effects. (2) The patient should be advised to change position slowly to mitigate possible orthostatic hypotension.	(1) The patient should be instructed to notify their provider if they notice a decrease in the amount of urine they produce or observe blood in their urine. (2) The patient should be advised to notify their provider if they develop severe or prolonged diarrhea.	(1) The patient should be advised not take this medication if they have abdominal pain, nausea, or vomiting. (2) The patient should notify their provider immediately if they notice rectal bleeding, dizziness, light-headedness, muscle cramping, weakness, or unrelieved constipation.

Hospital Medications (5 required)

Brand/Generic	Synthroid/	Zithromax/	Rocephin/	Crestor/	Prozac/

	levothyroxine sodium	azithromycin	ceftriaxone	rosuvastatin calcium	fluoxetine
Dose	88 mcg	500 mg	1000 mg	10 mg	20 mg
Frequency	1 tablet daily	Every 24 hours	Every 24 hours	1 tablet daily	1 capsule daily
Route	PO	IV piggyback	IV piggyback	PO	PO
Classification	Synthetic hormone	Macrolide antibiotic	Cephalosporin antibiotic	HMG-CoA reductase inhibitor	Anti-depressant; Selective serotonin reuptake inhibitor
Mechanism of Action	This medication is a replacement for endogenous thyroid hormone, which is believed to exert its effects by regulating DNA transcription and protein synthesis.	This medication blocks peptide translocation and inhibits RNA-dependent protein synthesis In susceptible bacteria by binding to a ribosomal subunit.	This medication blocks the formation of bacterial cell walls by inhibiting peptidoglycan cross-linkage.	This medication reduces circulating lipid levels by increasing the number of hepatic LDL receptors on the cell surface, which increases uptake and catabolism of LDLs. This is accomplished through rosuvastatin's inhibitory action on HMG-CoA reductase. Furthermore, rosuvastatin inhibits hepatic synthesis of VLDL which reduces total VLDL and LDL.	Fluoxetine increases the amount of serotonin available to nerve synapses by inhibiting its reuptake by CNS neurons.
Reason Client Taking	J.L. has a diagnosis of hypothyroidism.	J.L. has a diagnosis of community-acquired pneumonia.	J.L. has a diagnosis of community-acquired pneumonia.	J.L. has a diagnosis of hyperlipidemia.	Fluoxetine and other SSRIs are used off-label for the management of chronic pain.
Contraindications (2)	(1) Acute myocardial infarction (2) Uncorrected adrenal insufficiency.	(1) History of cholestatic jaundice or hepatic dysfunction associated with azithromycin use. (2) Hypersensitivity	(1) This medication is contraindicated in patients receiving IV solutions containing calcium. (2) Hypersensitivity to ceftriaxone, other beta-lactam	(1) Active liver disease (2) Unexplained persistent elevations of serum transaminase levels.	(1) Concurrent therapy with pimozide or thioridazine (2) Use within 14 days of taking an MAOI, including

		to azithromycin, erythromycin, ketolide antibiotics, or other macrolide antibiotics or their components.	antibacterial drugs or cephalosporins, penicillin drugs, or their components.		reversible MAOIs like linezolid or IV methylene blue.
Side Effects/Adverse Reactions (2)	(1) Angina (2) Hyperthyroidism	(1) Arrhythmias (2) Thrombocytopenia	(1) Acute renal failure (2) Arthalgia	(1) Arthalgia (2) Pancreatitis	(1) Anorexia (2) Altered platelet production
Nursing Considerations (2)	(1) Levothyroxine should be used cautiously in older patients with underlying cardiac disease. Overtreatment in these patients can increase cardiac contractility, cardiac wall thickness, and heart rate. Anticipate that this medication is started at a lower dose in these patients. (2) Oral levothyroxine should be given 4 hours before or after antacids, bile acid sequestrants, cation exchange resins, cholestyramine, colestipol, ferrous sulfate, kayexalate, or sucralfate to prevent decreased absorption.	(1) Elderly patients should be monitored closely for arrhythmias because they are susceptible to QT prolongation associated with azithromycin use. (2) Culture and sensitivity results should ideally be obtained before initiating therapy.	(1) Nurses should be aware that cross-sensitivity between penicillin and ceftriaxone is between 1-3%. If ceftriaxone therapy is necessary, monitor patients with a known penicillin sensitivity closely for sensitivity. (2) Protect powder from light, and reconstitute using an appropriate diluent such as sterile water or sodium chloride solution for IV administration.	(1) This medication should be used cautiously in patients with advanced age, hypothyroidism, or renal impairment; these are risk factors for myopathy. (2) Monitor serum lipoprotein level, as ordered, to evaluate the effectiveness of therapy.	(1) Monitor closely for GI bleed, particularly if the client is taking aspirin, an NSAID, or warfarin. (2) Expect to taper the drug if discontinued to minimize adverse effects.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Over or under-correction of hypothyroidism is a concern with this medication, and elevated liver enzymes are associated with its use. Therefore, TSH and liver enzymes should be checked before and throughout therapy.	This medication is associated with hepatitis, acute renal failure, leukopenia, neutropenia, and thrombocytopenia. Therefore, liver enzymes, BUN, creatinine, leukocytes, neutrophils, and platelets should be monitored before and throughout	This medication is associated with nephrotoxicity, hepatotoxicity, eosinophilia, hypoprothrombinemia, leukopenia, neutropenia, and thrombocytopenia. Therefore, BUN, creatinine, liver enzymes, WBC differential, platelets, and coagulation studies including PT	This medication is associated with hepatoxic and nephrotoxic effects. Therefore, baseline liver enzymes should be obtained and monitored throughout therapy. Furthermore, BUN and creatinine	Because this drug is associated with altered platelet production and bleeding, coagulation studies should be performed before and during therapy. An EKG should be obtained before starting in patients with a

		therapy. Furthermore, due to the risk of QT prolongation associated with this mediation, an EKG should be obtained before and during therapy.	and INR should be monitored before and during therapy.	should be assessed prior to and during treatment.	history of QT prolongation, myocardial infarction, or uncompensated heart failure.
Client Teaching needs (2)	(1) This medication should be taken 30 minutes prior to eating breakfast to maximize drug absorption. (2) The patient should be educated on signs of hyperthyroidism including chest pain, diarrhea, diaphoresis, fever, headache, heat intolerance, insomnia, irritability, leg cramps, nervousness, palpitations, weight loss, shortness of breath, tremors, and vomiting.	(1) Patients should be advised to report rash, itching, hives, chest tightness, or trouble breathing immediately. These could indicate an allergic reaction. (2) The patient should immediately report white patches in their mouth, which could indicate superinfection.	(1) The patient should be urged to report watery or bloody stools to their provider immediately and be advised that these can occur as long as two months after therapy has ended. (2) The client should be educated about the signs and symptoms of blood dyscrasias including arthralgia, bleeding, ecchymosis, and pharyngitis. If they experience unusual bleeding, bruising, joint pain, or a sore throat they should report it immediately.	(1) The patient should be encouraged to adhere to a low-fat, low-cholesterol diet to increase the benefits of therapy. (2) The patient should be advised to tell their provider if they develop muscle pain, tenderness, or weakness even if they occur after they have stopped taking this medication.	(1) The patient should be advised to report symptoms of serotonin syndrome including agitation, chills, confusion, diaphoresis, diarrhea, fever, hyperactive reflexes, poor coordination, uncontrolled excitement, tremor, and twitching. If these occur, they should notify their provider immediately. (2) The family or caregiver of the patient should be urged to watch the patient for suicidal thoughts, especially when therapy starts or dosage changes.

Medications Reference (APA):

Jones & Bartlett Learning. (2019). 2019 nurse's drug handbook (18th ed.). Jones & Bartlett Publishers.

Patetsos, E., & Horjales-Araujo, E. (2016). Treating chronic pain with SSRIs: What do we know? *Pain research & management, 2016*, 1-17. https://doi.org/10.1155/2016/2020915

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** Alert **Orientation:** Client is oriented to self. Is not consistently oriented to location, time, or situation. **Distress:** The client is seemingly in a pleasant mood and is not visibly distressed. **Overall appearance:** The client appears to be her stated age.	This client is alert and oriented to self. She is not reliably oriented to location, time, or situation. She has evident short-term memory problems, and on several occasions forgets what she was asked while thinking about her answer. She does not appear to be distressed; she seems to be relaxed and in a pleasant mood. J.L. appears to be her stated age.
INTEGUMENTARY (2 points): **Skin color:** Pale-pink. **Character:** Intact **Temperature:** Warm to the touch. **Turgor:** Poor. **Rashes:** N/A **Bruises:** N/A **Wounds:** J.L. has a 7.5 cm surgical scar on the anterior aspect of her right knee. The scar is pale in color and appears midline. **Braden Score:** 16 **Drains present: Y☐ N ☒** **Type:**	J.L.'s skin is primarily pale-pink in color and intact. At the time of assessment, this student observed that J.L.'s skin and clothing was moist with urine from her mid-back to bottom. The skin on her bottom is reddened, but blanchable and intact. This area is presently being protected with barrier wipes. Her feet feel dry, with substantial and diffuse flaking of skin noted bilaterally. Her skin is warm to the touch centrally and at all extremities. Skin turgor is poor. No rashes or bruises were noted. A surgical scar is visible on the client's right knee. The scar is pale in color, appears anterior and midline, and is approximately 7.5 cm in length. No drains are present. This client has a Braden Score of 16, which places her in the mild-risk category for pressure

	ulcers. J. L. can feel and express pain and discomfort, her skin is occasionally moist, and she walks for short distances with a walker but otherwise spends the shift in her bed and chair. J.L. makes infrequent, slight changes in position while in bed. At breakfast, this client at approximately half of the food offered. The client is able to scoot her body while in bed independently, but slides against sheets while doing so.
HEENT (1 point): **Head/Neck:** Trachea is midline. Oral mucosa is moist and intact. Hand appears normocephalic. Uvula is midline. No tonsil exudate noted. Tongue appears cracked and is covered with a white patch. **Ears:** Tympanic membranes appear pearly grey bilaterally. **Eyes:** PERRLA. Sclera appear white. No conjunctival inflammation or drainage noted bilaterally. **Nose:** Septum is midline. No epistaxis**.** **Teeth:** Dentition intact with some yellowing of teeth.	J.L.'s head is normocephalic. Her trachea is midline. Oral mucosa is moist and intact. Her uvula is midline. No tonsil exudate is observed. J.L.'s tongue appears cracked and features a large white patch on its surface. Her dentition is intact, with some yellowing of the teeth. Tympanic membranes are visible bilaterally and are pearly grey in color. PERRLA. Sclera appear white bilaterally, and no conjunctival inflammation or drainage is noted in either eye. Nasal septum is midline with no epistaxis noted. .
CARDIOVASCULAR (2 points): **Heart sounds:** S1, S2, and S3 heart sounds were auscultated. **Cardiac rhythm (if applicable):** Rhythm is irregular. **Peripheral Pulses:** Radial pulses are 3+ bilaterally. Pedal pulses are 2+ bilaterally. **Capillary refill:** >3 seconds. **Neck Vein Distention: Y** ☐ **N** ☒ **Edema Y** ☐ **N** ☒ **Location of Edema:** N/A	Auscultated S1, S2, and S3 heart sounds. Heart rhythm is irregular. Radial pulses are 3+ bilaterally and pedal pulses are 2+ bilaterally. No jugular venous distension is noted. Capillary refill >3 seconds in bilateral upper extremities. Bilateral upper and lower extremities are warm to the touch. No edema is noted on this client.
RESPIRATORY (2 points): **Accessory muscle use: Y**☐ **N** ☒ **Breath Sounds:** Auscultated fine crackles in the client's left lower lobe. All lung fields are otherwise clear throughout all lobes bilaterally.	Auscultated fine crackles in the left lower lobe of J.L.'s lung. Lung sounds are otherwise clear throughout all lobes bilaterally. No cough is observed at the time of this encounter. J.L.'s respiratory rate is 16 respirations per minute. Respirations are regular in rhythm, even, and appear non-labored. No use of accessory muscles is observed. SpO2 is 94% on room air.

GASTROINTESTINAL (2 points): **Diet at home:** Regular **Current Diet:** Regular **Height:** 144.7 cm **Weight:** 39.7 kg **Auscultation Bowel sounds:** Bowel sounds are active in all four quadrants. Noted borborygmi in right upper quadrant. **Last BM:** 10/17/20 **Palpation: Pain, Mass etc.:** Abdomen is soft to the touch. Client denies pain on palpation. No masses were felt. **Inspection:** **Distention:** non-distended **Incisions:** n/a **Scars:** n/a **Drains:** n/a **Wounds:** n/a **Ostomy: Y** ☐ **N** ☒ **Nasogastric: Y** ☐ **N** ☒ **Size:** **Feeding tubes/PEG tube Y** ☐ **N** ☒ **Type:**	J.L.'s appetite is fair. At breakfast she consumes about 50% of food offered. She is on a regular diet in the hospital and at home. Bowel sounds are active in all four quadrants with borborygmi auscultated in the right upper quadrant. Her abdomen is soft, non-distended, and non-tender. Client denies pain on palpation. No masses are felt. No incisions, scars, drains, or wounds are noted on inspection. No ostomy, nasogastric, or feeding tubes are present. J.L's last bowel movement was on 10/17/20. She initially seemed confused when this student inquiries about her regular bowel pattern, but with clarification states that she usually has at least one bowel movement daily.
GENITOURINARY (2 Points): **Color:** Yellow **Character:** Clear **Quantity of urine:** 125 mL **Pain with urination: Y** ☐ **N** ☒ **Dialysis: Y** ☐ **N** ☒ **Inspection of genitals:** **Catheter: Y** ☐ **N** ☒ **Type:** N/A **Size:** N/A	The client denies dysuria. She voids 125 mL of clear, yellow urine this shift. J.L. is not receiving dialysis and is not catheterized.
MUSCULOSKELETAL (2 points): **Neurovascular status:** Radial pulse is 3+ bilaterally. Pedal pulse is 2+ bilaterally. Skin is warm bilaterally in upper and lower extremities. Color of skin is pale-pink in hands and feet. J. L. denies any pain or paresthesias in her upper and lower extremities. **ROM:** Client demonstrates functional active range of motion in upper and lower extremities. **Supportive devices:** Walker.	J.L. is up with 1 assist and uses a walker for mobility. She tolerates short distance ambulation well. Radial pulse is 2+ bilaterally and pedal pulse is 2+ bilaterally. The client's skin is pale-pink and warm to the touch in her upper and lower extremities bilaterally. She denies any pain or paresthesias in all extremities. J.L. demonstrates a functional active range of motion in her arms and legs. Strength in the upper and lower extremities is 5/5 bilaterally.

Strength: 5/5 strength noted in bilateral upper and lower extremities. **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** 75 **Activity/Mobility Status:** 1 assist with ambulation. **Independent (up ad lib):** No. **Needs assistance with equipment:** Client uses a walker for ambulation. **Needs support to stand and walk:**.This client can stand up with her walker, bear weight, and ambulate with 1 assist giving minimal support.	J.L.'s Morse Fall Score is 75, which places her in the high fall risk category. She has had previous falls, has multiple diagnoses in her chart, uses a walker for ambulation, is receiving intravenous therapy, and has an impaired gait. Her problems with memory make it unlikely that she can consistently remember her limitations.
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** J.L. is oriented to herself. Orientation to situation, place, and time is unreliable. **Mental Status:** Apparent deficits in memory and cognition. J.L. can answer most simple questions coherently, but complex questions confuse her. **Speech:** Clear. **Sensory:** Sensorium is intact. **LOC:** Alert.	J.L. can move all extremities, but the movement of her toes is limited by arthritic changes in both feet. PERRLA. Strength in upper and lower extremities is equal bilaterally. Hand grips are strong and equal bilaterally. This client is alert, and oriented to self. Orientation to situation, place, and time is unreliable. J.L. has apparent deficits in memory and cognition. On several occasions, she forgets what she was asked while answering a question. She can respond to most simple questions coherently, but has difficulty answering complex questions and, at times, expressing her needs. This client speaks clear English. While her memory is impaired, her use of language is appropriate. Sensorium is intact. Facial expressions are symmetrical.
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** The client identifies family, and her faith as sources of support. **Developmental level:** The client is at an appropriate developmental level for her age but has severe deficits in memory and cognition. **Religion & what it means to pt.:** J.L. is a Catholic and values her faith. **Personal/Family Data (Think about home environment, family structure, and available family support):** The client lives at home with her husband. Her daughter Kathy is a physician and can	Discussion of coping mechanisms and family support was difficult with this client due to her cognitive problems. She was able to tell me that she is a Catholic. When asked if she considers her faith an important source of strength, she responded affirmatively. She lives at home with her husband, who she feels she can rely on. Her daughter Kathy is a physician, and regularly checks on her.

help check on her.	

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0820	58 beats per minute	143/76 mm Hg	16 respirations per minute	36.1 degrees Celsius	93% on room air
1105	45 beats per minute	78/46 mm Hg	14 respirations per minute	36.1 degrees celsius	94% on room air

Vital Sign Trends:

Between the set of vital signs taken on J.L. at 0820 and the set taken at 1105, there were several changes. The client's blood pressure decreased dramatically, from 143/76 mm Hg to 78/46 mm Hg. Maintaining a stable blood pressure has been a continued problem for this client. J.L. was not discharged on 10/18/20 due primarily to persistent hypotension. She remained on a continuous infusion of normal saline to correct this until the time of encounter with this student. The infusion of normal saline was discontinued by Dr. Bukkhari following J.L.'s first blood pressure reading this shift, and discharge was expected this afternoon. Although fluids were discontinued and the client received her scheduled dose of isosorbide mononitrate this shift, the magnitude of the decrease in this client's blood pressure was not anticipated. Because the second blood pressure reading was taken near the end of this student's shift, it is unknown if the problem is presently resolved. However, this student anticipates that J.L. is unlikely to discharge today, and that her hypotension will be investigated further. J.L.'s pulse also decreased over the course

of this shift from 58 beats per minute to 45 beats per minute. When the 1105 reading was taken, J.L. was resting in bed which may have contributed to the change. It should additionally be noted that this client has a history of bradycardia. Furthermore, there were modest changes in the patient's respiratory rate and oxygen saturation. On the second set of vitals, J.L.'s respirations had decreased by 2 respirations per minute, and her oxygen saturation had increased by 1%. Regarding her oxygen saturation, it should be noted that J.L. has a history of COPD and is presently diagnosed with pneumonia. A pulse oximetry reading of less than 95% is a common finding in both conditions (Holman et al., 2019). J.L.'s temperature remained constant this shift at 36.1 degrees Celsius.

References

Holman, H. C., Williams, D., Johnson, J., Ball, B., Wheless, L., Leehy, P., & Lemon, T. (2019). *RN adult medical surgical nursing* (11th ed.). Assessment Technologies Institute.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0820	Numeric	N/A	0/10	N/A	N/A
1105	Numeric	N/A	0/10	N/A	N/A

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 gauge **Location of IV:** left forearm **Date on IV**: 10/18/20 **Patency of IV:** patent **Signs of erythema, drainage, etc.:** n/a	At the last point of encounter with the client, continuous IV fluids had been discontinued and a saline lock was present.

IV dressing assessment: clean, dry, and intact.	Prior to this, the client had an order for continuous 0.9% NaCl solution at 75 mL/hr. Given the client's hypotension, it is anticipated by this student that IV fluids will be resumed. However, by the end of this student's shift, no new orders to do so had been received.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
240 mL, iced tea 150 mL, 0.9% NaCl IV infusion. **Total = 390 mL**	125 mL, urine **Total = 125 mL**

Nursing Care

Summary of Care (2 points)

Overview of care:

This student performed a head to toe assessment on the client, administered her medications, assisted her with ambulation and positioning in bed, and performed a bed bath. Vital signs were obtained twice this shift, and two pain assessments were performed.

Procedures/testing done:

No procedures or testing were performed this shift.

Complaints/Issues:

J.L. voices no complaints with her care, or in general this shift. Her daughter Kathy does not have complaints but reminded staff that J.L tires quickly after breakfast and requests that she be provided with a small-sized blood pressure cuff rather than a standard sized

cuff. This student assisted the client to ambulate to her bed after breakfast and obtained a small-sized blood pressure cuff for the client's room.

Vital signs (stable/unstable): J.L.'s vital signs were unstable this shift. Specific problems include worsening bradycardia, a shift in blood pressure from hypertension to hypotension, and persistent but modestly improving hypoxemia. The client's respiratory rate slightly decreased this shift but remained within normal limits. J.L.'s temperature remained constant at 36.1 degrees Celsius.

Tolerating diet, activity, etc.:

The client tolerates short distance ambulation well using her walker. Long distance ambulation was not assessed this shift. She has no difficulty swallowing when eating her breakfast but consumes only about 50% of food offered. If her oral intake is consistently low, she may benefit from a supplemental nutritional drink.

Physician notifications:

Dr. Bukkhari was notified of J.L.'s vital signs taken at 0820. Based on her blood pressure at that time, he decided to discontinue the client's continuous 0.9% NaCl infusion.

Future plans for patient: Dr. Bukkhari had been considering discharge this afternoon based on the apparent resolution of J.L.'s hypotension. However, since morning rounds the client had a significant drop in both systolic and diastolic blood pressure. At this student's last point of encounter with the client, Dr. Bukkhari had not yet been contacted regarding this change. It is possible that discharge will be delayed, and that further investigation of the client's hypotension will be pursued.

Discharge Planning (2 points)

Discharge location:

This client is likely to discharge to home. Her husband lives at home with her. Furthermore, her daughter Kathy is a physician and regularly checks on J.L. While it is possible, particularly if her husband's health declines, that J.L. may require placement in a long-term care facility in the future, at this time this student believes she has adequate support to live safely at home.

Home health needs (if applicable):

Physical and occupational therapy services may be indicated for this client to improve mobility and independence with ADLs. While finding transportation to outpatient physical therapy appointments is not an issue for J.L., home visits may be preferable for other reasons. One consideration, particularly while recovering from her illness, is that she may find travel to the appointments tiring to an extent that her ability to participate is diminished.

Equipment needs (if applicable):

This client needs a walker for short distance ambulation. She was seen today by physical therapy, who may recommend further equipment. Given her problems with gait and history of arthritic pain, this student anticipates that the client would benefit from a shower chair, toilet riser, and support bars in the shower. Additionally, side rails may help J.L. to improve her bed mobility at home.

Follow up plan:

J.L. will need to follow up with her primary care provider and will need to keep any physical or occupational therapy appointments she is scheduled if she will be doing so on an outpatient basis. Nurses should verify that she is attending these appointments.

Education needs:

Because of this client's memory problems, attempts to educate her are likely to be ineffective. Family education, however, may be appropriate. While the client's daughter is a physician and is thus likely to be well informed about J.L.'s diagnoses and care, she may find her mother's health problems emotionally stressful. If that is the case, Kathy may benefit from teaching regarding coping skills. J.L.'s husband might also benefit from education on coping skills as well as teaching about her condition and care.

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

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/ family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Ineffective protection related to inflammation of pleural parenchyma as evidenced by abnormal chest x-ray results.	Infection represents a serious threat to homeostasis for this patient. J.L. is 76 years old, and pneumonia is a leading cause of death for the elderly (Capriotti & Frizzell, 2016).	1. Administer intravenous antibiotics as prescribed. 2. Monitor the patient's white blood cell count and differential to assess the effectiveness of antibiotic therapy.	The patient is tolerating her antibiotic therapy well and exhibits no signs or symptoms of adverse reactions this shift. The patient had CBC results processed this shift. This student noted that the patient's neutrophil percentage had decreased to within reference range. Prior to this, J.L.'s neutrophil count had been elevated. Goals for this patient remain in progress. For

			this shift, J.L. remained afebrile, respirations were within normal limits, and pulse oximetry readings remained stable between 93-94%
2. Risk for falls related to weakness as evidenced by assessed Morse Fall score of 75.	While the client tolerates short-distance ambulation well this shift, she remains at a high risk for falls. Due to her age and history of osteomalacia, J.L. is at an increased risk of falls and fractures (Hinkle & Cheever, 2018; Holman et al., 2019).	1. Encourage patient to use walker with ambulation. 2.Verify that pressure alarm is activated before leaving room.	The patient uses her walker for ambulation with no complaints or difficulty. She requires minimal support with standing up. J.L.'s pressure alarm was activated before each time this student left the room. Goals for this patient are in progress. J.L. has remained free from falls this shift, and did not attempt ambulation without assistance.
3. Risk for impaired skin integrity related to impaired bed mobility as evidenced by observation of blanchable erythema on the patient's bottom.	At this time, J.L. does not have any open wounds. However, she is at least occasionally incontinent of bladder and moves feebly while in bed.	1. Assist the client with repositioning every two hours. 2. Treat client's bottom with a protective barrier wipe after each episode of incontinence or after using the toilet.	The patient tolerates repositioning well, but has a tendency to return to the supine position while in bed. J.L. had one episode of urinary incontinence this shift. Her bed linens were changed, she was given a bed bath, assisted to the toilet, and her bottom was treated with a barrier wipe. Goals for this client remain in progress. At this time, J.L.'s skin continues to remain

			intact.
4. Risk for self-care deficit related to cognitive impairment as evidenced by student observation of disorientation to place, location, and situation.	J.L. suffers from profound deficits in memory and cognition that likely preclude her from being entirely dependent with ADLs.	1. Assess the adequacy of the patient's home support network. 2. Discuss available home health resources with the patient and her family as appropriate.	J.L. lives at home with her husband within a short drive of the hospital. The client's daughter is well informed about J.L.'s health and her care needs. She is able to regularly check in on her parents and feels that discharge to home is appropriate. J.L. has no safety concerns about discharging to home. Goals for this client remain in progress. While J.L.'s daughter came in to see her this morning, her husband was not there today. It would be ideal to discuss any concerns he might have with caring for J.L. with him prior to discharge. Further more, the opportunity did not present itself to discuss any identified home health needs with J.L.'s daughter. Ideally, J.L.'s family will participate in good faith about any concerns they have, and be open about any resources they feel they need in order to help care for J.L.

Other References (APA):

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

Herdman, T. H., & Kamitsuru, S. (2014). *Nursing diagnoses – definitions & classification 2015-2017*. NANDA International.

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

Holman, H. C., Williams, D., Johnson, J., Ball, B., Wheless, L., Leehy, P., & Lemon, T. (2019). RN adult medical surgical nursing (11th ed.). Assessment Technologies Institute.

Concept Map (20 Points):

Subjective Data

Patient complaints of weakness, shortness of breath, and cough.
Patient states that she lives at home with her husband and feels safe living at home.
J.L. states that she is interested in working with physical therapy.
J.L. relates that she is uncomfortable getting up to ambulate to the bathroom by herself.

Nursing Diagnosis/Outcomes

Diagnosis 1: Ineffective protection related to inflammation of pleural parenchyma as evidenced by abnormal chest x-ray results
Outcome: The client's oxygen saturation will remain greater than 92% this shift.

Diagnosis 2: Risk for falls related to weakness as evidenced by assessed Morse Fall score of 75.
Outcome: The client will remain free from falls this shift.
Diagnosis 3: Risk for impaired skin integrity related to impaired bed mobility as evidenced by observation of blanchable erythema on the patient's bottom.
Outcome: The client 's skin will remain free from pressure wounds for the duration of her stay at Sarah Bush Lincoln Health Center.
Diagnosis 4: Risk for self-care deficit related to cognitive impairment as evidenced by student observation of disorientation to place, location, and situation.
Outcome: The client and her family will voice any concerns they have with J.L.'s care needs at home before discharge.

Objective Data

J.L. had abnormal chest x-ray results on 10/17/20.
VS: BP 78/46 mm Hg, P 45 bpm, R 14/min, O2 94% on RA, T 36.1 C.
Neutrophils elevated on CBC performed 10/17/20.
J.L.'s bottom is reddened, but blanchable.
J.L. was observed incontinent of bladder with wet linens once this shift.
Braden Score: 16
Morse Fall Score: 75
Patient uses a walker for mobility.
Client's daughter present at bed side this shift.
Noted history of osteomalacia.
Patient noted to be disoriented to location, situation, and time on assessment.
Multiple diagnoses in client's chart.
Patient observed moving self feebly in bed.
Client is 76 years old.

Patient Information

This patient is a pleasant 76 year old female with an extensive cardiac history including CAD, Hypertensive heart disease, CHF, and mitral valve prolapse. She additionally has COPD and Cor Pulmonale. She arrived at the ED with her daughter on 10/17/20 after, that day, feeling weak, SOB, and developing a productive cough. At home, her SPO2 was noted to be 85-87% on room air. Her chest x-ray revealed haziness over the left lung. She was subsequently admitted for inpatient care. Initial treatment involved IV ABX, continuous NS at 75 mL/hr, and O2 at 2L/nc. She was weaned off O2 and is now 93-94% on room air. IV fluids were discontinued 10/19/20. Blood pressure subsequently dropped to 78/46 mm Hg. Hypertension remains a concern for this patient. She has a 20 gauge IV in her left forearm.

Nursing Interventions

Diagnosis 1
Administer intravenous antibiotics as prescribed.
Monitor the patient's white blood cell count and differential to assess the effectiveness of antibiotic therapy.
Diagnosis 2
Encourage patient to use walker with ambulation.
Verify that pressure alarm is activated before leaving room.
Diagnosis 3
1. Assist the client with repositioning every two hours.
2. Treat client's bottom with a protective barrier wipe after each episode of incontinence or after using the toilet.
Diagnosis 4
Assess the adequacy of the patient's home support network.
Discuss available home health resources with the patient and her family as appropriate.