N431 Care Plan 1

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 09/19/2021	**Patient Initials** VD	**Age** 80	**Gender** Female
Race/Ethnicity Caucasian	**Occupation** Receives SSI	**Marital Status** Widowed	**Allergies** KNDA
Code Status Full	**Height** 162.6 cm	**Weight** 142.7 kg	

Medical History (5 Points)

Past Medical History: DMT2, atrial fibrillation, HTN, chronic HF, depression, diabetic neuropathy, iron-deficiency anemia, osteomyelitis (left heel), hyperlipidemia, morbid obesity, PAD

Past Surgical History: artificial joints in both knees (1998,1999), tumors removed from lower extremities (1996)

Family History:

Mother- internal bleeding (deceased- 2010)

Father- lung cancer (deceased-1978)

Brother and sister deceased from unknown causes

One sister, daughter, and son are living and healthy

Social History (tobacco/alcohol/drugs): Pt denies drinking alcohol, smoking cigarettes, or using drugs

Assistive Devices: Patient wears reading glasses and uses a walker at home.

Living Situation: Patient resides in a single-family home. She lives with her daughter, and granddaughter and has a dog.

Education Level: Patient stated: “I did not finish high school or get my GED”.

Admission Assessment

Chief Complaint (2 points): generalized weakness, confusion, draining left foot ulcer

History of present Illness (10 points):

On Sunday (09/19/2021), this patient came to the ED because she felt weak upon waking. The patient reported general weakness all over her body that did not go away. The patient stated: "I just felt weak and tired." The physician that assessed this patient determined and documented that she was confused when he saw her, and purulent drainage was coming from her left heel. The patient reported that the weakness was more noticeable with movement. The patient laid back down to rest, but it did not help, so she came to the hospital. This patient has experienced weakness in the past. She stated: "I felt like this before when I had a UTI, but usually I go to my doctor when it happens." The patient denied urinary frequency or pain. The patient developed a pressure ulcer on her left heel in March. The patient reported that the dressing was recently wetter than usual, and her heel was causing severe pain. The patient stated: "It is dull, achy, and worsens with movement. When sitting, my pain is about a 6, but when I put pressure on it, it becomes an 8." The patient denied experiencing any other symptoms or trying anything to reduce the pain. This patient stated: "I have been receiving treatment for this ulcer at the Wound Center for several months."

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Altered Mental Status (AMS)

Secondary Diagnosis (if applicable):.

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

Osteomyelitis is an infection of the bone, typically caused by bacteria entering the body because of trauma, surgery, skin punctures with foreign objects, and prosthetics (Capriotti, 2020). Annually, one in 5000 individuals is diagnosed with osteomyelitis (Capriotti, 2020). Sixteen percent of diabetic patients develop osteomyelitis (Capriotti, 2020). If they have a foot wound, their risk increases to 30-40% (Capriotti, 2020). Staphylococcus aureus causes most cases of osteomyelitis (Capriotti, 2020). However, Bacteroides and Clostridium bacteria cause osteomyelitis resulting from poorly healed diabetic wounds (Capriotti, 2020). There are three types of osteomyelitis: hematogenous, contiguous, and chronic (Capriotti, 2020). Hematogenous osteomyelitis occurs when bacteria from the blood invade the bone, forming an abscess (Capriotti, 2020). As a result, the blood supply to the bone is decreased, and pieces of necrosed bone called sequestrae form (Capriotti, 2020). This type commonly affects children under seventeen (Capriotti, 2020). Contiguous osteomyelitis occurs when bacteria from surgical incisions, pressure wounds, and prosthetic joints enter the bone. Once there, the bacteria cause inflammation, blood vessel clotting, and exudate formation, which weaken the cortex of the bone, causing dislocations and fractures (Capriotti, 2020). Patients with peripheral vascular disease and diabetes mellitus are at an increased risk of developing this type of osteomyelitis because they have poor circulation, which decreases healing (Capriotti, 2020). Chronic osteomyelitis defines infections that are present longer than eight weeks because they were not treated or did not respond to antibiotic therapy (Capriotti, 2020). With this type of osteomyelitis, the bone is fully necrosed and no longer receiving blood. This type creates the perfect environment for anaerobic bacteria to live, reproduce, and cause gangrene (Capriotti, 2020). Osteomyelitis risk factors include obesity, malnutrition, immunosuppression, chronic illnesses, intravenous drug use, and surgery (Hinkle & Cheever, 2018). The signs and symptoms of

osteomyelitis include high-grade fever, chills, fatigue, and tachycardia (Hinkle & Cheever, 2018). The infection site does not heal, produces purulent drainage, and will be swollen, painful, tender, and warm (Hinkle & Cheever, 2018). Soft tissue changes and bone necrosis must be confirmed by x-ray, MRI, and radioisotope bone scans to diagnose osteomyelitis (Hinkle & Cheever, 2018). A bone biopsy is performed to identify the bacteria causing the infection (Capriotti, 2020). Elevated CRP, ESR, and WBCs combined with a thorough history, and physical exam can indicate the disease but cannot confirm it (Hinkle & Cheever, 2018). The initial treatment of osteomyelitis includes intravenous antibiotics for 2-6 weeks, followed by oral antibiotics (Capriotti, 2020). If the wound is not improving, debridement and surgical drainage are performed (Capriotti, 2020). Hyperbaric oxygen therapy is the last resort before the limb must be amputated (Capriotti, 2020). My patient presented to the ED with altered mental status related to an untreated UTI. While there, the physician assessed an ulcer on her left heel which was causing her severe pain, he documented purulent drainage coming from the wound. This patient has had this ulcer since March. It has failed to heal because this patient has uncontrolled diabetes and PAD, which reduce the blood flow to the limb (Hinkle & Cheever, 2018). The wound became infected and spread to her bone which led to her being diagnosed with osteomyelitis of the left heel. This patient was receiving treatment for this wound at the Wound Center at Union Hospital. Labs were drawn on 09/19/2021, the results showed elevated WBCs with a value of 14.3. An x-ray taken on 09/19/2021 to evaluate the status of the osteomyelitis indicated that there were no fractures or dislocations of the left heel. The peripheral blood culture performed on 09/19/2021 identified gram-positive and negative cocci. During my shift, her vital signs were stable and the dressing on her left heel was dry and intact. It is unclear whether the bacteria in her bloodstream came from the osteomyelitis or the urinary tract infection she was

initially admitted for. She is currently receiving meropenem, vancomycin, and morphine intravenously to treat the infection and reduce pain. She is scheduled to have the wound surgically drained and cleaned later today. She is currently receiving 3L of oxygen via nasal cannula unrelated to the infection. Patients with anemia experience shortness of breath related to decreased hemoglobin levels (Capriotti, 2020).

Pathophysiology References (2) (APA):

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

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

Laboratory Data (15 points)

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

Lab	Normal Range	Admission Value	Today's Value Done on 09/21	Reason for Abnormal Value
RBC	4.4-5.80	4.45	4.4	
Hgb	13.0-16.5	9.6	9.4	Low Hgb levels are expected in patients with iron-deficiency anemia due to the lack of iron for hemoglobin synthesis (Capriotti, 2020).
Hct	38-50	31.6	31.6	Low Hct levels are expected in patients with iron-deficiency anemia

				because the body has a decreased level of hemoglobin available for RBC synthesis (Capriotti, 2020).
Platelets	140-440	241	232	
WBC	4.00-12.0	14.3	8.9	My patient has bacteria in her urinary tract, blood, and calcaneus. The immune system responds to bacterial infections by increasing WBCs to fight them off (Capriotti, 2020).
Neutrophils	60-80%	87.2	81.4	My patient has bacteria in her urinary tract, blood, and calcaneus. Neutrophils are the first WBC to respond to bacterial infections (Capriotti, 2020).
Lymphocytes	20-40%	3.8	7.5	Lymphocytes are decreased in patients with acute infections. Although lymphocytes respond to the infection, they are destroyed or trapped in the lymphatic system reducing this value (Capriotti, 2020).
Monocytes	3.0-13.0%	7.9	9.9	
Eosinophils	0.0-8.0%	0.1	0.4	
Bands	0.0-0.5	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 Done on 09/21/**	**Reason For Abnormal**
Na-	134-144	131	138	My patient has heart failure and hypertension and takes furosemide daily to treat these disorders. Furosemide eliminates water from the body, which can cause low sodium levels (Capriotti, 2020). Large amounts of drainage from wounds also cause hyponatremia (Capriotti, 2020). My patient has a large pressure ulcer on her left heel.

K+	3.5-5.1	4.27	4.26	
Cl-	98-107	99	102	
CO2	21-31	21.5	24.9	
Glucose	70-99	297	217	My patient has poorly controlled DMT2 which is why her glucose is so high.
BUN	7-25	17	12	
Creatinine	0.6-1.2	0.53	0.48	As a person ages, they lose muscle mass which causes low creatinine levels (Sissons, 2017). Creatinine is made in the body, but it can also come from eating meat (Sissons, 2017). My 80-year-old patient is not active and informed me that she does not like to eat meat, which is why she is anemic and has low creatinine levels.
Albumin	3.5-5.7	3.2	n/a	My patient does not consume enough protein, which can cause decreased albumin levels (Capriotti, 2020). She also has heart failure, which causes low albumin levels and edema (Jewell, 2018). She also has a bacterial infection. Infections cause inflammation which decreases albumin levels (Jewell, 2018).
Calcium	8.6-10.3	8.6	8.6	
Mag	1.3-3.0			n/a
Phosphate	44-147			n/a
Bilirubin	0.1-1.4	1.0	n/a	
Alk Phos	40-120	97	n/a	
AST	10-30	13	n/a	

ALT	5-35	9	n/a	
Amylase	30-110	n/a	n/a	
Lipase	0-160	n/a	n/a	
Lactic Acid	0.5-2.2	n/a	n/a	
Troponin	<0.4	n/a	n/a	
CK-MB	5-25	n/a	n/a	
Total CK	26-174	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- Done on 09/21	Today's Value	Reason for Abnormal
INR	<1	1.7	Waiting on labs	My patient was given coumadin on 09/21/2021 which has since been discontinued. Coumadin thins the blood, increasing clotting time (Hinkle & Cheever, 2018).
PT	9.5-11.3	17.3	Waiting on labs	My patient was given coumadin on 09/21/2021 which has since been discontinued. Coumadin thins the blood, increasing clotting time (Hinkle & Cheever, 2018).
PTT	20-39		n/a	n/a
D-Dimer	<250			n/a
BNP	<100			n/a
HDL	>60	30		My patient takes ursodiol daily to lower her cholesterol (*2020 Nurse's drug*, 2020).
LDL	<130	51		
Cholesterol	<200	99		My patient takes ursodiol daily to

				lower her cholesterol (*2020 Nurse's drug*, 2020).
Triglycerides	<150	89		
Hgb A1c	4-5.6% Diabetic- <7%	9.5		An A1c above 6 indicates diabetes (Hinkle & Cheever, 2018). My patient has DMT2, so her A1c should be less than 7 (Hinkle & Cheever, 2018). An A1c being that high demonstrates poor diabetes management (Hinkle & Cheever, 2018).
TSH	0.4-1.4			n/a

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Yellow and clear	Amber & cloudy	n/a	When urine is amber-colored, it indicates dehydration because it is more concentrated (Capriotti, 2020). My patient takes furosemide which can cause dehydration (Hinkle & Cheever, 2018). The presence of bacteria can turn urine cloudy, and my patient has a urinary tract infection. (Capriotti, 2020).
pH	5.0-7.0	7.4	n/a	Bacteria secrete ammonia which causes urine to become alkaline (Hinkle & Cheever, 2018). My patient has a urinary tract infection.
Specific Gravity	1.003-1.005	1.027	n/a	Specific gravity increases with dehydration and the presence of glucose and protein in the urine (Hinkle & Cheever, 2018). My patient is dehydrated, has diabetes, and has protein in her urine.
Glucose	Negative	1+	n/a	When diabetic patients have glucose in their urine, it indicates that their diabetes is poorly managed (Capriotti, 2020).
Protein	Negative	2+	n/a	Diabetes and infections can cause proteinuria, and my patient has both (Capriotti, 2020).

Ketones	Negative	1+	n/a	When diabetic patients have ketones in their urine, it indicates that their diabetes is poorly managed (Capriotti, 2020).
WBC	0-25	50+	n/a	WBCs in the urine indicates a urinary tract infection which my patient has (Capriotti, 2020).
RBC	0-20	Negative	n/a	
Leukoesterase	Negative	3+	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
PaO2	80-100			n/a
PaCO2	35-45			n/a
HCO3	22-26			n/a
SaO2	95-100%			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
Blood Culture	Negative	+1	+1, but no new growth	My patient has gram-positive and negative cocci in her bloodstream. This blood infection could have resulted from an untreated UTI or caused it. She also has osteomyelitis, a bacterial infection of the bone which can quickly spread to the bloodstream (Hinkle &

				Cheever, 2018).
Sputum Culture	Negative			n/a
Stool Culture	Negative			n/a

Lab Correlations Reference (1) (APA):

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

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

Jewell, T. (2018, September 2). *What is hypoalbuminemia and how is it treated?* Healthline. https://www.healthline.com/health/hypoalbuminemia

2020 Nurse's drug handbook (Nineteenth edition. ed.). (2020). Jones & Bartlett Learning.

Sissons, C. (2017, November 2). *All you need to know about low creatinine levels.* Medical News Today. https://www.medicalnewstoday.com/articles/319892

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

09/19/2021- An x-ray of the left foot was taken, which did not show any fractures or dislocations.

09/19/2021- Two x-rays of the chest were taken, which showed mild interstitial lung markings in both lungs. However, these markings were present in a previous chest XR and were unchanged.

09/19/2021- The patient had a CT scan of the head, which showed age-related brain changes.

Diagnostic Test Correlation (5 points):

Bone x-rays are used to determine bone density and identify bone irregularities such as erosion, textural changes, fractures, and dislocations (Capriotti, 2020). My patient has

osteomyelitis in her left heel. If left untreated, the affected bone can necrose and separate from the healthy bone (Capriotti, 2020). The x-ray of her foot was taken to assess for bone changes caused by osteomyelitis.

A chest x-ray provides images of the heart and lungs, allowing physicians to identify changes to these organs (Hinkle & Cheever, 2018). During admission, my patient was confused and had a decreased oxygen saturation. A chest x-ray can identify the cause of hypoxia, such as a pulmonary infection or pulmonary congestion related to exacerbated heart failure (Hinkle & Cheever, 2018).

A head CT provides two-dimensional clear images of the brain and spine to detect encephalitis, brain bleeds, atrophy, tumors, and brain injury (Capriotti, 2020). A CT scan of the head is done for patients experiencing neurological symptoms, changes in mental status, and persistent headaches or who have had a recent brain injury (Capriotti, 2020). When my patient arrived at the ED, she was confused and weak, which are neurological symptoms.

Diagnostic Test Reference (1) (APA):

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

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

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

Home Medications (5 required)

Brand/Generic	escitalopram Oxalate/ Lexapro	ferrous sulfate/Feosol	furosemide/Lasix	Oxybutynin	ursodiol
Dose	10 mg	325 mg	20 mg	5 mg	25 mg
Frequency	Daily	Daily	Daily	TID	TID
Route	PO	PO	PO	PO	PO
Classification	SSRI/ antidepressant	Hematinic/ antianemic	Loop diuretic/antihypertensive	Anticholinergic/ antispasmodic	Bile acid/ cholelitholytic
Mechanism of Action	Blocks the reuptake of serotonin by CNS neurons which increases the amount of serotonin at the nerve synapse	Normalizes RBCs by binding to hemoglobin	Blocks sodium and water reabsorption at the loop of Henle and increases urinary output	Relaxes the smooth muscle in the bladder and decreases detrusor muscle contractions	Blocks intestinal absorption of cholesterol
Reason Client Taking	To treat depression	To replace iron in deficiency states	To manage HTN and reduce edema caused by HF	To treat incontinence	To reduce cholesterol levels
Contraindications (2)	Hypersensitivity to escitalopram, citalopram, or its components. Do not take within 14 days of MAO inhibitor	Hemochromatosis, hemolytic anemia	Anuria, hypersensitivity to furosemide or its components	GI obstruction, angle-closure glaucoma	Biliary obstruction, pancreatitis

Side Effects/Adverse Reactions (2)	Atrial fibrillation, prolonged QT interval	Hypotension, angioedema	Hypokalemia, hyperglycemia	Arrhythmias, hypotension	Abdominal pain, elevated liver enzymes
Nursing Considerations (2)	Use cautiously in patients with history of seizures Use caution in patients that have renal impairment	Give iron tablets with a full glass of water or juice Give one hour before or two hours after meals to maximize absorption	Administer in the morning to reduce nocturia Monitor patient for hearing loss, vertigo, and tinnitus	Monitor patients for angioedema monitor for CNS effects	Administer drug with food to increase the rate of drug breakdown Give aluminum-containing antacids 1 hour before or 4 hours after drug
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Check pulse before administering, escitalopram should not be given to patients with bradycardia Check potassium and magnesium levels before administering because escitalopram increases the risk of prolonged QT intervals	Check blood pressure before giving this drug because it can cause hypotension Assess for abdominal pain, diarrhea, N/V which indicate iron toxicity	Check potassium levels before administering, potassium may need to be given with it Check blood pressure and glucose because furosemide can decrease BP and elevate glucose	Assess pulse and auscultate heart sounds this drug can cause cardiac symptoms in patients with HF Assess urinary symptoms before administering	Inspect and palpate the abdomen for distention and discomfort Assess bowel sounds because drug can cause constipation
Client Teaching needs (2)	Do not stop taking drug abruptly it needs to be tapered to	Take medication with a full glass of orange juice to increase absorption	Take drug at the same time every day Furosemide can cause orthostatic	Take drug on an empty stomach unless GI symptoms	Take drug with meals Notify provider if

	avoid withdrawal symptoms Notify provider of any unusual or persistent symptoms	Stools should become dark green or black, if they do not, notify the provider	hypotension, change positions slowly	occur Avoid excess sun exposure because it can cause heatstroke	RUQ pain develops

Hospital Medications (5 required)

Brand/ Generic	meropenem/ Merrem I.V	Insulin detemir/ Levemir	metoprolol/ Lopresor	Vancomycin hydrochloride/ Vancocin	Morphine sulfate/ MorphaBond ER
Dose	1 g	20 units	25 mg	2 g	2 mg
Frequency	Q8H	Daily hs	Daily	Daily	Q4H PRN
Route	I.V bolus	Subcutaneous	PO	I.V PB	I.V push
Classification	Carbapenem/ antibiotic	Long-acting insulin/hormones/antidiabetic	Beta-adrenergic blocker, antihypertensive	Glycopeptide/ antibiotic	Opioid/ opioid analgesic
Mechanism of Action	Penetrates the cell walls of gram-negative and gram-positive bacteria and inhibits cell wall synthesis causing cell death	Brings glucose into the cells so the body can use it	Decreases renal release of renin	Inhibits RNA and cell wall synthesis in bacteria causing them to die	Activates opioid receptors in the brain to produce analgesia
Reason Client Taking	To treat UTI caused by E. coli	To reduce blood glucose levels	To treat HTN	To treat osteomyelitis and bacteremia	To reduce pain
Contraindicat	Hypersensitivity to	Hypoglycemia, hypersensitivity to	Pulse less than 45 beats/	Hypersensitivity to corn and	Respiratory

ions (2)	meropenem, carbapenem drugs, beta-lactams, or their components	detemir or its components	min, acute heart failure	corn substances when given with dextrose, hypersensitivity to vancomycin or its components	depression, upper airway obstruction
Side Effects/Adverse Reactions (2)	Elevated BUN and creatinine, oral candidiasis	Hypokalemia, lipodystrophy	Bradycardia, bronchospasm	Ototoxicity, nephrotoxicity	Bradycardia, coma
Nursing Considerations (2)	Reconstitute with 20 mL of sterile water for I.V bolus Monitor patient closely for diarrhea which can indicate Clostridium defficile	Do not mix with another insulin or solution, Roll vial between palms do not shake it	Metoprolol can interfere with therapeutic effects of insulin Metoprolol can aggravate peripheral vascular disease	Infuse at a minimum of 1hr/g because rapid delivery can cause red man syndrome Assess hearing during therapy because vancomycin can cause hearing loss	Ensure opioid antagonist and oxygen equipment are nearby before administering this drug Use caution when giving this drug to patients at risk for carbon dioxide retention
Key Nursing Assessment(s) /Lab(s) Prior to Administration	Check creatinine and BUN levels because this drug can cause renal failure Check neutrophil levels because this drug can cause neutropenia	Check blood glucose before administering to prevent hypoglycemia Assess abdomen for lipodystrophy and avoid areas bruised or painful	Assess pulse and blood pressure before administering because metoprolol can decrease both Assess lung sounds and respirations metoprolol	Check patency of I.V before starting infusion because vancomycin can cause necrosis Check BUN and creatinine levels before starting infusion	Assess respiratory rate before administering this drug, it should not be given if the rate is less than 12 breaths/m

			can cause bronchospasm	because vancomycin can cause AKI	inute Check BP before giving this drug because severe hypotension can occur
Client Teaching needs (2)	Notify provider if diarrhea lasts longer than 3 days avoid hazard activities until CNS effects are known	Do not rub injection site rotate injection site	Take this medication with food and at the same time each day Take pulse at the same time each day and notify provider if it is below 60 beats/min	Notify provider if symptoms do not improve within a few days Notify provider if persistent diarrhea occurs	Avoid alcohol and other CNS depressants while on this medication Change positions slowly to minimize orthostatic hypotension

Medications Reference (1) (APA):

2020 Nurse's drug handbook (Nineteenth edition. ed.). (2020). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 A&O x 4 No acute distress noted. This patient is well-groomed and looks her age.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:**	 Pink Dry Cold to the touch

Turgor: **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Skin returned immediately No bruises or rashes present Large pressure ulcer on her left heel. The bandage was dry, clean, and intact when I assessed it. Large vertical scars present on both knees. Braden score: 13 This patient has a pure wick catheter, is confined to bed, is NPO, and requires 2 people to change positions and get out of bed.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck symmetrical. The trachea is midline without deviation. No lymphadenopathy inspected or palpated. Thyroid is nonpalpable. Bilateral auricles are pink without drainage or lesions noted. Bilateral PERRLA. Intact EOMs bilaterally. Sclera is white. Conjunctiva is pink. The patient uses glasses. The nose is free of discharge and lesions. The patient has her own teeth, but several are missing on the bottom left. Throat is pink, moist, and without lesions. Tonsils 1+.
CARDIOVASCULAR (2 points): **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:**	Clear S1 and S2 heart sounds. No audible murmur, gallops, or rubs noted. Pulses 2+ throughout bilaterally. Capillary refill normal, less than 3 seconds. No edema inspected or palpated in extremities.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Breath sounds even, regular and nonlabored bilaterally. No crackles, wheezes, or rhonchi noted.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:**	Low sodium/sugar NPO awaiting surgical procedure 162.6 cm 142.7 kg. Hypoactive in all four quadrants. Last BM was 09/20/2021. Abdomen is nontender to palpation in all four quadrants No distention or organomegaly noted.

Incisions: **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	No incisions, scars, wounds, or drains noted on the abdomen.
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	Amber Turbid 250 mL present in collection canister. This patient voided once in a bedside commode which was not measured. Genitalia was inspected while cleaning the patient after voiding. Genitalia was clean and without lesions, but the skin between her legs and labia majora was moist and peeling.
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	This patient displayed weakness when moving from the bed to the commode. Limited ROM in peripheral extremities bilaterally. Equal and firm grips in upper extremities bilaterally. Equal and firm pedal pushes/pulls in lower extremities bilaterally. Fall Score 40, the patient is receiving IV antibiotics and has an unsteady gait. This patient got up once during my shift to use the commode. This patient requires the assistance of two people to stand and ambulate.
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☒** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Patient has difficulty getting out of bed and experiences weakness when standing. Oriented to person, place, time, and situation. Cognitive with normal speech. Normal sensory response in upper extremities bilaterally. Decreased sensation in lower extremities bilaterally. Alert
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):**	This patient relieves stress by reading Amish fiction books in her recliner.

Developmental level: **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	No developmental issues were observed. This patient is protestant and attends church every Sunday. The patient's two nieces visit her regularly to help with chores and keep her company. Her daughter, son, and granddaughter run errands for her, but no one helps her with ADLs.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0945	80- LA	126/80 -LA	16	97.3- Oral	94 %, 3L via nasal cannula
1205	76- LA	144/84 -LA	18	98.2- Oral	94%, 3L via nasal cannula

Vital Sign Trends:

This patient's systolic and diastolic blood pressures fluctuated between normal and high. The highest recorded BP was 157/90. However, this patient has HTN, so BP fluctuations are normal before and after receiving hypertensive medication. This patient's pulse also fluctuated between normal and tachycardic. The highest recorded value was 119. Beta-blockers such as metoprolol can reduce the heart rate, which is why her pulse fluctuates (Hinkle & Cheever, 2018).

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0945	Numerical	Left heel	8/10	Pressure, achy	I retrieved a pillow and elevated her foot to reduce the pressure on her heel.

					1020- The patient reported the pillow helped, but her pain was still a 7/10.
1100	Numerical	Left heel	8/10	Pressure, achy	I Informed the nurse about this patient's pain level. The nurse called the Dr to get an order for IV pain medication. 1130-The nurse administered morphine intravenously. 1205- The patient reported a decrease in pain and rated it a 4/10.

IV Assessment (2 Points)

IV Assessment	**Fluid Type/Rate or Saline Lock**
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	20 g Right hand 09/20/2021 I did not flush the IV to check patency, but IV antibiotic ran without issue. A 1000 mL bag of NS was hung and is set to infuse at 100 mL/hr once the antibiotic finishes. No erythema or drainage noted. Dry, clean, and intact

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
150 mL IV vancomycin	250 mL urine in collection canister

2 spoonsful of ice chips	Voided 1x unmeasured

Nursing Care

Summary of Care (2 points)

Overview of care: During my shift, this patient received medications for her BP, acid reflux, IV fluids for hydration, and morphine for pain. She is receiving meropenem and vancomycin to treat a bacterial infection.

Procedures/testing done: None- This patient is scheduled for surgical drainage of the left heel later today.

Complaints/Issues: The patient's left heel was causing her constant pain and preventing her from ambulating. She was given morphine intravenously for pain. She was experiencing dry mouth from being NPO, so she was provided ice chips.

Vital signs (stable/unstable): This patient's vital signs were slightly elevated but expected due to HTN.

Tolerating diet, activity, etc.: This patient got out of bed one time to use the bedside commode but required the assistance of two people. This patient has a pure pick catheter in place, which is collecting amber-colored urine. This patient is currently NPO awaiting a surgical procedure to clean out the ulcer on her left heel. Physical therapy came, but VD refused to participate because of the pain in her left heel.

Physician notifications: The nurse contacted the physician for an order for an IV pain medication for this patient.

Future plans for patient: Currently NPO for surgical procedure to clean out the wound on her left heel scheduled for later today.

Discharge Planning (2 points)

Discharge location: Home with home health care

Home health needs (if applicable): Dressing changes on her left heel and assistance with ADLs

Equipment needs (if applicable):

Follow up plan: Return to the wound center for further assessment and treatment

Education needs: Preventing UTIs, caring for and preventing pressure ulcers, fall prevention at home, iron-rich foods

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. Decreased gas exchange related to reduced hemoglobin as evidenced by patient's report of shortness of breath when oxygen was removed for several minutes during toileting and an oxygen saturation of 94% with 3 L of oxygen.	This patient has anemia and decreased hemoglobin which causes shortness of breath. Following ABC's, decreased oxygenation is a top priority following maintaining the airway.	1.Elevate the head of the bed to allow maximum lung expansion. 2. Assess the patient's lung sounds and oxygenation status by using a pulse oximeter.	Goal met- I elevated the head of the bed after repositioning the patient in bed following toileting. The patient reported that she was comfortable and was not experiencing SOB. Goal met- I auscultated this patient's lungs during my assessment and they were clear bilaterally. I measured this patient's oxygenation status during my vitals.
2. Acute pain related to	Keeping the patient	1. Elevate the affected area to	Goal met- I retrieved a pillow and elevated this

	infection of the left heel as evidenced by patient's numerical pain rating of 8/10.	comfortable is vital for their healing and helps keep them cooperative during their care.	reduce swelling and pain. 2.Complete a comprehensive pain assessment when assessing vital signs Pain medication was a priority intervention for this patient but it was administered by the nurse following my pain assessment. I did not want to provide interventions that I did not do	patient's foot following my 0945 vitals. The patient reported that it helped, and she rated her pain a 7/10. Goal met- I assessed the location, duration, intensity, characteristics, and aggravating/alleviating factors during my 0945 vitals and 1100 vitals.
3.	Impaired physical mobility related to pain as evidenced by limited ROM and the patient's reluctancy to ambulate to the restroom and participate in physical therapy.	Physical activity is important for the patient's well-being.	1.Assess the patient's skin for signs of breakdown related to inactivity. 2.Assess bowel sounds and elimination status as constipation can result from immobility.	Goal met- I inspected this patient from head-to-toe during my physical exam except for her left heel which was bandaged. Goal met- I auscultated this patient's bowel sounds and asked about her last BM during my assessment.
4.	Risk for falls related to weakness as evidenced by an unsteady gait and patient's report of feeling weak while ambulating to the commode.	Preventing falls in the elderly is crucial for preventing fractures. Preventing falls is especially important for patients taking anticoagulants.	1.Keep the bed in a low position and bed alarms on 2. Keep the call light within the patient's reach.	Goal met- The patient's bed was placed in the low position and the alarm was reset after toileting. 2. Goal met- The call light was placed next to the client in bed after toileting and I made sure that it was next to her each time I entered/left the room.

Other References (APA): Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: Medical-surgical, pediatric, maternity, and psychiatric-mental health* (5th ed.). Elsevier.

Concept Map (20 Points):

Subjective Data

"It is dull, achy, and worsens with movement. When sitting, my pain is about a 6, but when I put pressure on it, it becomes an 8."
"I felt like this before when I had a UTI, but usually I go to my doctor when it happens."
"I have been receiving treatment for this ulcer at the Wound Center for several months."
Patient became short of breath while ambulating

Nursing Diagnosis/Outcomes

Decreased gas exchange related to reduced hemoglobin as evidenced by patient's report of shortness of breath when oxygen was removed for several minutes during toileting and an oxygen saturation of 94% with 3 L of oxygen.
Outcome: While hospitalized, this patient will maintain clear lung sounds and remain free of signs of respiratory distress.
Acute pain related to infection of the left heel as evidenced by patient's numerical pain rating of 8/10.
Outcome: The patient's pain intensity will decrease as evidenced by her numerical pain rating within 1 hour.
Impaired physical mobility related to pain as evidenced by limited ROM and the patient's reluctancy to ambulate to the restroom and participate in physical therapy.
Outcome: While hospitalized, this patient will remain free of complications of immobility as evidenced by intact skin, normal bowel elimination, and absence of thrombi.
Risk for falls related to weakness as evidenced by an unsteady gait and patient's report of feeling weak while ambulating to the commode.
Outcome: During hospitalization, the patient remains free from injury related to weakness.

Objective Data

WBC-14.3
Blood culture identified gram-positive and gram-negative cocci
PT- 17.3
INR-1.7
Braden score 13
Fall score 40
Large draining ulcer on left heel
Oxygen saturation – 94% with 3L oxygen
Intake- 150 mL vancomycin I.V

Patient Information

On 09/19/2021, an 80-year-old woman with a history of osteomyelitis, HF, DMT2 presented to the ED at union hospital with a chief complaint of weakness

Nursing Interventions

.Elevate the head of the bed to allow maximum lung expansion.
Assess the patient's lung sounds and oxygenation status by using a pulse oximeter.
Elevate the affected area to reduce swelling and pain.
Complete a comprehensive pain assessment when assessing vital signs
Assess the patient's skin for signs of breakdown related to inactivity.
Assess bowel sounds and elimination status as constipation can result from immobility.
Keep the bed in a low position and bed alarms on
Keep the call light within the patient's reach.