N431 Care Plan # 1

Lakeview College of Nursing

Name: Andrea Cook

N431 Care Plan

Demographics (3 points)

Date of Admission	**Patient Initials**	**Age**	**Gender**
1/28/2020	RC	77	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Retired	Married	No known allergies
Code Status	**Height**	**Weight**	
Full	5’10”	113.2 kg	

Medical History (5 Points)

Past Medical History:

- Atrial Fibrillation
- Diabetes Mellitus
- Hypertensive Cardiovascular Disease
- COPD

Past Surgical History:

- Extension tendon Release finger (Left) 7/8/2018
- Arthroscopy of the knee with Lateral Menscetomy
- Bilateral carpal tunnel syndrome

Family History:

- The father was an alcoholic and had liver, kidney, and heart issues.
- The mother died of older age and had no know health issues.
- The brother has no known health issues.
- The sister has no known health issues.

Social History (tobacco/alcohol/drugs):

- The client smoked up to two packs a day for 45 years.
- The client drank alcohol during the service and denies drinking anymore since then.
- The client denies doing drugs.

Assistive Devices:

The patient used a cane at home and used a walker at the hospital.

Living Situation:

He lives with his wife at his home.

Education Level:

High school diploma with a semester or two of college.

Admission Assessment

Chief Complaint (2 points):

"I couldn't walk because of the pain in my right knee and I kept falling down"

History of present Illness (10 points):.

The onset of the pain was a few days before going to the hospital. The location was the "right knee" around the patellar. The duration of the pain was "constant for three to four days." The characteristic of the pain was "burning and stinging." According to the client, the only activity that notably helps alleviate the pain was to lie down.

Moreover, the pain was still rated at an eight on a numeric scale of 1-10. Furthermore, the associated knee pain was aggravated when trying to walk or even stand up and was rated a ten on the numeric scale at that time. Also, the pain would increase in the mornings and at night time. He described the severity of the pain as "excruciating constantly." The last 24 hours before being admitted to the hospital, he could not stand and stated: "I would fall over every time I tried to walk."

Primary Diagnosis

Primary Diagnosis on Admission (2 points):

- Sepsis
- Cellulites of right knee

Secondary Diagnosis (if applicable):

N431 Care Plan

NA

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

This health issue focused on is that cellulitis is an infection of the skin that can be serious if not treated." Cellulitis is a common skin infection that can spread quickly and be very serious and is most common on in legs but can happen anywhere" (Quick Facts: Cellulitis, 2019). To summarize the essays contents the focus will be the pathophysiology, manifestations, diagnostic procedures used, and how the client presented with the diagnosis of cellulitis. Understanding how infection affects the body overall is the pathophysiology and is needed to be understood before elaborating on the signs and symptoms.

The pathophysiology of cellulitis is an infection of the skin. "Cellulitis occurs when an entry point through typical skin barriers allows bacteria to enter and release their toxins in the subcutaneous tissue. The etiologic pathogen of cellulitis is either Streptococcus or staphylococcus aureus" (Hinkle & Cheever, 2018, p. 881). This bacterial infection of the skin that is usually in the lower extremities. There are several signs and symptoms associated with this infection.

The signs and symptoms of cellulitis are similar to the typical manifestations of inflammation. For example, Red area of skin that tends to expand "swelling, tenderness, pain, warmth, fever, red spots, blisters, and skin dimpling" (Cellulitis, 2018). Also, there is chill and sweating with the coloring of the skin being sporadic and can develop pitting with an orange tint. The text states, "The redness may not be uniform and often skips areas and eventually develops in pitting and orange peel appearance" (Hinkle & Cheever, 2018, p. 881). Furthermore, the expected findings are vague and generalized infection of the lower extremities.

Further testing might be ordered if the infection is severe. "If the infection gets into the bloodstream, you can have a high fever, low blood pressure, and shut down some of your organs (sepsis)" (Quick Facts: Cellulitis, 2019). There are wound cultures done to understand the infection and figure out the best antibiotics that will be used. Merck Manuals explains, "Doctors diagnose cellulitis based on how your skin looks. There are no tests to tell for sure. However, doctors may do tests such as an ultrasound to make sure the client's leg is not red and swollen because of a blood clot" (Quick Facts: Cellulitis, 2019). There are not too many diagnostic tools used and labs.

The doctor will likely be able to diagnose cellulitis by looking at the client's skin." In some cases, he or she may suggest blood tests or other tests to help rule out other conditions". The complete blood count will be ordered, and some specific lab values would be: WBC, CRP, ESR, and PCT are usually elevated with inflammation and infections within lab tests completed. Although, as mentioned before, there can be a wound culture completed to verify the cause.

The client had several different tests and labs performed to help support the diagnosis of cellulitis. On the date of arrival, the patient has CBC drawn. Additionally, there was an x-ray of the right lower extremities. Also, there were several wounds and blood cultures performed. The new cultures included anaerobic, surgical incision, and tissue. These new cultures proved there were a streptococcus pyogenes within the right knee. Due to the infection, the provider prescribed two different antibiotics of cefepime and vancomycin. This client had many of the hallmark signs of an infection. The client presented with the right lower reddened extremity with pitting and warmth when felt. The labs showed elevated WBC. The x-ray showed prepatellar soft tissue swelling.

In conclusion, the contents of the essay explained information on pathophysiology, manifestations, diagnostic procedures used, and how the client presented with the diagnosis of cellulitis. This infection is severe if not appropriately treated and possibly deadly. "Cellulitis is a common skin infection that can spread quickly and be very serious" (Quick Facts: Cellulitis, 2019). Teaching the clients early detection is essential. Prevention measures and early detection are essential factors to help ensure a fast recovery from cellulitis.

Pathophysiology References (2) (APA):

Cellulitis. (2018, April 10). Retrieved from https://www.mayoclinic.org/diseases-conditions/cellulitis/diagnosis-treatment/drc-20370766

Cellulitis. (2018, April 10). Retrieved from https://www.mayoclinic.org/diseases-conditions/cellulitis/symptoms-causes/syc-20370762

Hinkle, J.L., & Cheever, K. H. (2018). Brunner & Siddhartha's Textbook of Medical-Surgical Nursing (14th ed.). Philadelphia, Pa: Wolters Kluwer Health Lippincott Williams & Wilkins.

Quick Facts: Cellulitis. (2019). Retrieved from https://www.merckmanuals.com/home/quick-facts-skin-disorders/bacterial-skin-infections/cellulitis

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 11/10	Today's Value 11/11	Reason for Abnormal Value
RBC	Females: 4.2 to 5.4 million/ uL Males: 4.7 to 6.1	**3.95 Low**	**3.66 Low**	The client could have had low red blood cells due to chronic illness or being anemic because his hgb levels are low as well (Pagana & Pagana, 2011). The patient is being prescribed

				ferrous sulfate.
Hgb	Females: 12 to 16 g/dL Males: 14 to 18 g/dL Elderly: levels slightly decreased	**12.1 Low**	**11.2 Low**	The client could be anemic. (Pagana & Pagana, 2011).I'm not aware of him having been anemic previously, but looking at the lab values it seems that there a deficiency. His regular provider was Carle. The patient is prescribed an iron supplement.
Hct	Females: 37 to 47% Males: 42 to 52% Elderly: Levels slightly decreased	**36.8 Low**	**33.2 Low**	The client could be anemic (Pagana & Pagana, 2011). The patient is being subscribed an iron supplement.
Platelets	150,000 to 400,000 mm^3	248	380	
WBC	5,000 to 10,000/mm^3	**19.5 High**	**17.5 High**	The patient's increased WBC elevated due to the infection in his right knee of cellulitis (Pagana & Pagana, 2011).
Neutrophils	45%75% (Normal Lab Values - Common Laboratory Values)	**87.7 High**	**85.4 High 1/31**	The patient's neutrophils are elevated due to the infection in his right knee (Pagana & Pagana, 2011).
Lymphocytes	20%-40% (Normal Lab Values - Common Laboratory Values)	**4.1 Low**	**9.1 Low 1/31**	The lymphocytes are decreased due to the severity of the cellulitis in his right knee (Pagana & Pagana, 2011).
Monocytes	4.4-12% (Normal Lab Values - Common Laboratory Values)	7.5	**4.1 Low 1/31**	The patient was diagnosed with sepsis upon arrival to the hospital, and this could be the reason for the decreased monocytes (Pagana & Pagana, 2011).
Eosinophils	Less than 7% (Normal Lab Values - Common Laboratory Values)	0.3	0.8 1/31	

Bands	< x 10^9/L (Normal Lab Values - Common Laboratory Values)	NA	NA	

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136 to 145 mEq/L	**128 Low**	135	The patient was on a heart healty diet which includes a decreased amount of sodium (Pagana & Pagana, 2011).
K+	3.5 to 5.0 mEq/L	4.1	**3.4 Low**	The patient's K+ levels could be b low from the insulin (Pagana & Pagana, 2011).
Cl-	98 to 106 mEq/L	**94 Low**	**97 Low**	The patient could have been overhydrated (Pagana & Pagana, 2011). The patients Na+ levels were low and overhydrating could have been the cause of both.
CO2	21-34 (Normal Lab Values - Common Laboratory Values)	23	29	
Glucose	70-105 mg/ dL	**363 High**	**203 High**	The glucose levels are elevated due to the corticosteroid therapy given in the hospital (Pagana & Pagana, 2011).
BUN	10-20 mg/dL	**26 High**	**22 High**	The patient could have been going into shock do to the severity of the cellulitis (Pagana & Pagana, 2011).
Creatinine	Females: 0.5-1.1 mgdL Males: 0.6-1.2 mg/dL (ATI)	**1.47 High**	**1.25 High**	This patient could have had reduced renal blood flow due to shock from the severity of cellulitis (Pagana & Pagana, 2011).

Albumin	3.5 to 5 g/dL	4.1	NA	
Calcium	9.0-10.5 mg/dL (ATI)	9.4	**8.2 Low**	**The patient could have malabsorbant disorder (**Pagana & Pagana, 2011). The patient was deficient in other areas. For example; RBC, Hgb, and Hct.
Mag	1.3 to 2.1 mEq/L	1.6 2/1	1.8	
Phosphate	2.5-4.5 (ATI) (Cleveland Clinic Cancer).	NA	NA	
Bilirubin	0.3 to 1 mg/ dL	0.8	0.4	
Alk Phos	30 to 120 units/L	50	49	
AST	0 to 35 units/L	22	19 1/31	
ALT	4 to 36 units/L	27	19 1/31	
Amylase	30 to 220 units/L	NA	NA	
Lipase	0 to 160 units/L	NA	NA	
Lactic Acid	0.4-2.3 (Normal Lab Values - Common Laboratory Values)	2.2	1.2 1/31	
Troponin	0-0.4 ng/mL (ATI)	1.015	0.197	
CK-MB	3-5% or 5-25 IU/L (Cabaniss CD. Creatine Kinase)	NA	NA	
Total CK	22-198 u/L (ATI)	NA	NA	

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	0.8 to 1.1 (desired goal of 2 to 3 on warfarin therapy)	NA	NA	
PT	11 to 12.5 seconds, 85 to 100% or 1:1.1 client-control ratio	NA	NA	
PTT	30 to 40 seconds (1.5 to 2.5 times the control value if receiving heparin therapy	NA	NA	
D-Dimer	Less than 0.4 mcg/mL	NA	NA	
BNP	>125 pg/mL for patients aged 0-74 years Less than 450 pg/mL if older (NT-proB-type Natriuretic Peptide)	445	NA	
HDL	More than 45 mg/dL (ATI)	NA	NA	
LDL	Less than 100mg/dL (ATI)	NA	NA	
Cholesterol	3-5.5 (Normal Lab Values - Common	NA	NA	

	Laboratory Values)			
Triglycerides	50-150 (ATI) (Normal Lab Values - Common Laboratory Values)	NA	NA	
Hgb A1c	5.7% or less indicates not DM 7% indicated good control 8% to 9% fain DM control 9% or greater indicates poor control	NA	NA	
TSH	0.4-5.5 (Thyroid Blood Tests)	NA	NA	
T4	4-12 mcg/dL. (ATI)	NA	NA	

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 (light/pale to dark/deep amber) Clarity/ turbidity – Clear or cloudy. (Normal Lab Values - Common Laboratory	Yellow	NA	

	Values)			
pH	4.6 to 8 (ATI)	5.0	NA	
Specific Gravity	0.003-0.040 (Normal Lab Values - Common Laboratory Values)	1.025	NA	This patient could had a decrease in renal blood flow due to shock (Pagana & Pagana, 2011).
Glucose	Less than 0.5 g/ day(ATI)	>500	NA	
Protein	0.8 mg/dL (ATI)	**2+ Abnormal**	NA	This patient could have protein because of DM (Pagana & Pagana, 2011).
Ketones	None	**Trace**	NA	This patient could have protein because of DM (Pagana & Pagana, 2011).
WBC	Males: 0-3 Females: 0-5 High-power field (ATI)	1	NA	
RBC	0-5 (Urinalysis)	1	NA	
Leukoesterase	None (Urinalysis)	NA	NA	

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 (MedlinePlus Medical Encyclopedia)	7.36	NA	
PaO2	75-100 mm hg (MedlinePlus Medical Encyclopedia)	**59.1 Low**	NA	The client has a decreased PaO2 due to COPD (Pagana & Pagana, 2011).
PaCO2	38-42 mm hg	**32.8**	NA	The client has a decreased PaCO2

	(MedlinePlus Medical Encyclopedia)	**Low**		due to COPD (Pagana & Pagana, 2011).
HCO3	22-26 mEq/L (ATI)	**21.5 Low**	NA	The client has a decreased HC03 due to COPD (Pagana & Pagana, 2011).
SaO2	94%-100% (MedlinePlus Medical Encyclopedia)	**91.8 Low**	**NA**	The client has a decreased SaO2 due to COPD (Pagana & Pagana, 2011).

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	4.5 - 7.2 normal range (Laboratory Test Interpretation, n.d.).	NA	NA	
Blood Culture	None (Blood Culture)	-	-	
Sputum Culture	None (Bacterial Sputum Culture)	NA	NA	
Stool Culture	Negative (Stool Culture)	NA	NA	
Wound Culture	No growth (Bacterial Wound Culture: Reference Range, Interpretation, Collection and Panels,	NA	**+ Streptococcus pyogenic**	This is a bacteria from cellulitis and this would cause the test to be positive (Pagana & Pagana, 2011).

	2019)			
Tissue Culture	No growth (Bacterial Wound Culture: Reference Range, Interpretation, Collection and Panels, 2019)	NA	**+ Streptococcus pyogenic**	This is a bacteria from cellulitis and this would cause the test to be positive (Pagana & Pagana, 2011).
Anaerobic Culture	No growth (Bacterial Wound Culture: Reference Range, Interpretation, Collection and Panels, 2019)	NA	**+ Streptococcus pyogenic**	This is a bacteria from cellulitis and this would cause the test to be positive (Pagana & Pagana, 2011).

Lab Correlations Reference (APA):

Assessment Technologies Institute, LLC. (2017). *Pn adult medical surgical nursing: content mastery series review module*. Leawood, KS.

Bacterial Sputum Culture. (n.d.). Retrieved from https://labtestsonline.org/tests/sputum-culture-*Type equation here* .bacterial

Bacterial Wound Culture: Reference Range, Interpretation, Collection and Panels. (2019, November 9). Retrieved from https://emedicine.medscape.com/article/2103764-overview

Blood Culture. (n.d.). Retrieved from https://labtestsonline.org/tests/blood-culture

Blood gases: MedlinePlus Medical Encyclopedia. (n.d.). Retrieved from https://medlineplus.gov/ency/article/003855.htm.

Cabaniss CD. Creatine Kinase. In: Walker HK, Hall WD, Hurst JW, editors. Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Boston: Butterworths; 1990. Chapter 32. Available from: https://www.ncbi.nlm.nih.gov/books/NBK352/

Cholesterol Levels: What You Need to Know. (2019, April 18). Retrieved from https://medlineplus.gov/cholesterollevelswhatyouneedtoknow.html.

Laboratory Test Interpretation. (n.d.). Retrieved from https://www.nurseslearning.com/courses/nrp/labtest/course/section5/index.htm.

Normal Lab Values - Common Laboratory Values. (n.d.). Retrieved from

NT-proB-type Natriuretic Peptide (BNP). (n.d.). Retrieved from https://my.clevelandclinic.org/health/diagnostics/16814-nt-prob-type-natriuretic-peptide-bnp

Pagana, K. D., & Pagana, T. J. (2011). *Mosbys diagnostic and laboratory test reference* (14th ed.). St. Louis, MO: Elsevier Mosby.

Stool Culture. (n.d.). Retrieved from https://www.uofmhealth.org/health-library/hw5738.

Thyroid Blood Tests. (n.d.). Retrieved from https://my.clevelandclinic.org/health/diagnostics/17556-thyroid-blood-tests.

Troponin. (n.d.). Retrieved from https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=167&contentid=troponin.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

The blood culture was negative to rule out sepsis. The EKG was performed because of the medical history of a-fib, and he had a normal sinus rhythm. There was an echo given 1/29, and the ejection fracture was at 60-65% and was at grade one of dysfunction. 1/31, there was a chest x-ray because of the echo given on 1/29. There was cardiomegaly. These procedures were done

to determine if there was an underlying condition that was causing the infection to worsen or not heal.

Diagnostic Test Correlation (5 points):

There was an x-ray that showed that there was tissue swelling or the right lower extremity. Also, there was an anaerobic surgical incision, plus a tissue culture and wound culture performed. The cultures all came back with staphylococcus pyogenic, which is a normal finding for cellulitis (Hinkle & Cheever, 2018, p. 881). The CBC showed that the WBC was elevated and that there was an infection (Pagana & Pagana, 2011).

Diagnostic Test Reference (APA):

Hinkle, J.L., & Cheever, K. H. (2018). Brunner & Suddarth's Textbook of Medical-Surgical Nursing (14th ed.). Philadelphia, Pa: Wolters Kluwer Health Lippincott Williams & Wilkins.

Pagana, K. D., & Pagana, T. J. (2011). *Mosbys diagnostic and laboratory test reference* (14th ed.). St. Louis, MO: Elsevier Mosby.

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

Home Medications (5 required)

Brand/Generic	**Eliquia/ apixaban**	**Vasotec/ Enalapril**	**Antara/ Fenofibrate**	**Gabapenti/ Neurontin**	**Jardiance/ empagliflozin**
Dose	**5 mg**	**2.5 mg**	**96 mg**	**300 mg**	**10 mg**
Frequency	**Daily**	**Daily**	**Daily**	**TID**	**Daily/ morning**
Route	**PO**	**PO**	**PO**	**PO**	**PO**
Classification	**Anticoagulant; Antithrombotic; Selective factor XA inhibitor**	**Angiotensin-converting Enzyme (ACE)**	**Antilipemic Fibrate**	**Anticonvulsant; antiepileptic agent**	**Antidiabetic**
Mechanism of Action	**CA reversible, selective active site inhibitor of factor Xa that**	**ACE inhibitor that catalyzed**	**Fibric acid derivative with lipid regulating**	**A GABA neurotransmitter analog;**	**Inhibits the sodium-glucose cotransporter 2 (SGLT2) in the**

	does not require antithrombic III for antithrombic activity; indirectly inhibits platelet aggregation induces by thrombin. By inhibiting FXa, anpixaban decreases thrombin generation and clot development	**the conversion of angiotensin I to angiotensin II, therefore decreases angiotensin II levels, thus decreased vasopressor activity and aldosterone secretion. Reaction achieves an antihypertensive effect by suppression of the renin-angiotensin-aldosterone system. ACE reduces the peripheral arterial resistance, pulmonary papillary wedge pressure, a measure of the preload, pulmonary vascular resistance and improve cardiac output. Lowers BP and improves cardiac output**	**properties. Lowers plasma triglycerides by inhibiting triglyceride syntheses and, as a results lower BLDL production as well as stimulates the catabolism of the triglyceride-rich lipoprotein.**	**However, it does not inhibit GABA uptake or degradation, It appears to interact with GABA cortical neurons. But the relationship to functional activity as an anticonvulsant is unknown.**	**proximal renal tubules that is responsible for the majority of the e reabsorption of filtered glucose in the kidney**

Reason Client Taking	**Atrial Fibrillation**	**Blood pressure**	**Dyslipidemia**	**Neuropathy**	**Diabetes Mellitus II**
Contraindications (2)	**1.Active pathological bleeding 2.Severe hepatic impairment**	**1.Hpotension 2.Acute renal failure**	**1.Kidney dysfunction 2.Thrombocytompenia**	**1.Hypersensitivit to gabapentin 2.Suicidal ideation**	**1.Hypersensitivyt to canagliflozin or any component of the formulations 2.Severe renal impairment.**
Side Effects/Adverse Reactions (2)	**1.Increased bleeding risk 2. anemia**	**1.Headache 2.hypotension**	**1. fatigue 2. abdominal pain**	**1.Increased BP 2.Nausea and vomiting**	**1.Polydipsia 2.Decreased hematocrit.**
Nursing Considerations (2)	**1.Report promptly suspected or overt bleeding 2.There is not established way to reverse anticoagulant effect of apixaban, which can persist for about 24 hr after last dose.**	**1. monitor for therapeutic effectiveness Monitor BP for first several day of therapy**	**1.Assess for muscle pain. 2.Monitor lab test: periodic lipid levels, LFTs, and CBC with differential**	**1.CNS: drowsiness and fatigue 2.Endocrine: Weight gain**	**1.Monitor BP Monitor for S&S of genital fungal infections.**
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**Check the platelets before giving the patient.**	**Check the patient's Blood pressure before giving**	**Check the lipid levels.**	**Monitor for therapeutic effectiveness; may not occur until several weeks following initiation f therapy. Also, do a depression or suicidal ideations screening.**	**Check blood pressure before giving**
Client Teaching needs (2)	**1.Do not stop drug unless contacting your provider. 2. Do not take aspirin or other OTC pain relievers, Such as NSAIDs. Tat**	**1.Do not follow a low-sodium diet without approval from prescriber.**	**1.inform prescriber regarding concurrent use of cholestyramine, oral anticoagulants, or**	**1. Do not take drug within 2 hr of an antacid. 2.Do not drive or engage in other**	**1.Monitor blood sugar as directed by prescriber. 2. repot the S&S of allergic reaction.**

	could increase the risk of bleeding.	**2. Avoid use of salt substitute.**	**cyclosporine 2.Contact prescriber immediately if muscle pain, tenderness or weakness, especially with fever of malaise, yellowing of skin or eyes**	**potentially hazardous activates until response to drug is known.**	

Hospital Medications (5 required)

Brand/ Generic	**Lepressor/ Metroprolol**	**Lovenox/ Eoxaparin**	**Maxipime/ cefepime**	**Vancocin/ Vancomycin**	**Zoloft/ Sertraline**
Dose	**25 mg**	**110 mg**	**2000 mg**	**1.25 mg**	**50 mg**
Frequency	**Daily**	**BID**	**TID**	**BID**	**Daily**
Route	**PO**	**Injection**	**IV piggyback**	**IV piggyback**	**PO**
Classification	**Antihpertensive/ Beta-adreneric antagonist**	**Anticoagulant; low molecular weight Heparin**	**Antibiotic; fourth-generation cephalosporin**	**Antibiotic; Glycopeptide**	**SSRI**
Mechanism of Action	**Beta- adrenergic antagonist with preferential effect on beta 1 receptors located primarily on cardiac muscle.**	**Affect thrombin time and activated thromboplastin time up to 1.8 x the control value. Antithrombic properties are due to tis ant factor Xa and in the**	**Binds to one or more of the penicillin-binding proteins located on cell walls of susceptible organisms. This inhibits the third and final stage of**	**Bactericidal action is due to inhibition of cell-wall biosynthesis and alteration of bacterial cell-membrane permeability and ribonucleic acid synthesis.**	**Potent inhibitor of serotonin reuptake in the brain. Effective in controlling depression, OCD, anxiety, and panic disorder**

		coagulation activities	**bacterial cell wall synthesis, thus killing the bacteria.**		
Reason Client Taking	**Manage hypertension**	**Prevention of DVT**	**Cellulitis**	**Cellulitis**	**Depression**
Contraindications (2)	**1.Cardiogenic shock 2.Monderate to severe cardiac failure**	**1. GI bleeding 2. Hemophilia**	**1.Development of neurotoxicity 2. Hypersensitivity to cefepime**	**1.Development of neurotoxicity 2. Hypersensitivity to vancomycin.**	**1.Clients taking MAO 2.Suicidal ideation**
Side Effects/ Adverse Reactions (2)	**1.Dizziness 2.Gastric pain**	**1.Fever 2.Abnormal liver function**	**1.Nausea 2.headache**	**1.Rash 2.headache**	**1.Chest pain 2.insomnia**
Nursing Considerations (2)	**1.Monitor HR before administering. 2.Monitor daily weight**	**1.Monitor platelet count closely 2.Monitor for bleeding**	**1.Monitor S&S of hypersensitivity 2. Monitor labs: Baseline C&S**	**1.Monitor BP and HR continuously while drug administration 2. Assess hearing.**	**1.Supervise patient at risk for suicide 2.Monitor for worsening of depression**
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**Check the HR before administering**	**Check the patients platelet count before administering**	**Monitor labs: Baseline C&S**	**Check if there is a hypersensitivity to vancomycin.**	**Assess the patients for suicidal thoughts**
Client Teaching needs (2)	**1.Learn how to take radial pulse before each dose. 2.Do not abruptly stop.**	**1.Report signs of unexplained bleeding. 2.Do not take OTC drug without contacting prescriber.**	**1.Report S&S of hypersensitivity. 2. Report if infection worsens.**	**1.Report S&S of hypersensitivity. 2. Report if infection worsens.**	**1.Repot diarrhea 2.Report signs of bleeding**

Medications Reference (APA):

Shields, K. M., Fox, K. L., & Liebrecht, C. (2018). *Pearson nurses drug guide 2018*. Boston: Pearson.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**Patient exhibits no signs of impaired memory and is oriented to person, place, time, and situation. A & O x 4. Patient is awake and alert.** **Patient is responsive to stimuli. Patient's speech is clear and regular.**
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	**The skin was normal pale pink and warm — on most of the body. The coccix was redden and had a barrier. The right lower extremity is red and warm to touch with pitting edema of 2+. Pulses were felt and were strong at 3+ each. There was a reddened spot on her coccyx, no skin breakdown. The extremity pulses were all detected with. No abnormal dermal sensations detected. His handgrip strength was normal equal bilateral. The lower extremity flex strength was normal equal bilateral. Change of position every two hours is recommended for this patient. No rashes or drainage noticed during the inspection of the skin. The skin was dry — Braden scale on 13. The skin had good turgor with some tenting.** **The IV site was at the right AC and was dry and intact. Dated 1/28**
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**Hair is loose, gray, and evenly distributed and balding at the top. Eyes: Conjunctiva is pink; sclera is white. Pupils are 3 mm equal, round, and reactive to light with 2 step method bilaterally. Accommodation with convergence and constriction bilaterally. EOMs are intact bilaterally. Patient eyes had normal conjunctiva, no scleral icterus. The patient wears glasses. Ears: Soft and no cerumen noticeable in both ears. Nose: No deviations present. The mucosa is pink and moist. The patient reports no nose bleeds. Mouth: Lips are symmetrical and dry. Oral mucosa is moist and pink. All teeth were missing, and he was wearing dentures. Neck: Trachea appears midline. Thyroid was not palpable along with tonsillar, submandibular, and submental lymph nodes. No pulsations present**

	bilaterally.
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:**	**Heart sounds were heard while auscultating in the aortic, mitral, tricuspid, Erb's point, and pulmonic. Heart sounds were heard clearly as Lub Dub. There wasn't a murmur or gallop detected. Capillary refill is less than 3 seconds except on the toenails were clubbed, and I couldn't see the cap refill. Radial, Brachial, carotid, popliteal, dorsal pedal, and tibia is posterior pulses were all felt and strong bilateral at 3+. No abnormal neck distention. No edema on all extremities, except the right extremity**
RESPIRATORY (2 points): **Accessory muscle use: Y☒ N ☐** **Breath Sounds: Location, character**	**There was a nasal cannula oxygen 2 L being delivered. Breathing was SOB, limited expansion bilaterally. Posterior and anterior lung sounds: The RUL, LUL, LLL and RLL were all heard. Mucous membranes are pink and moist. Nail beds on the hands showed no evidence of clubbing and are hard, smooth, and immobile. The capillary refill is less than 3 seconds bilaterally. Braden score of 13 and fall risk of 85**
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☐** **Nasogastric: Y ☐ N ☐** **Size:** **Feeding tubes/PEG tube Y ☐ N ☐** **Type:**	**The patient is on a heart-healthy diet. The abdomen is distended, hardened, and non-tender when palpated — no masses or abnormalities. Bowel sounds were active in all four quadrants. The patient is obese. No pain in the abdomen. No scars drain, or wounds seen at the time of assessment. The patient's last BM was in the morning and was normal. The patient had not drains or wounds other than the right knee.** **No feeding or nasogastric tubes were implemented.**
GENITOURINARY (2 Points):	**Urine color is unknown. No pain when**

Color: **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	**urinating. No Dialysis. No catheter was implemented.**
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☐**	**Her hand grip was normal bilateral. Foot flex was normal bilateral. She has a mobile with assistance and had good ROM. However, she classifies as a Morse fall risk of 85. The patient has a cane at home and walker in the hospital. He is a two person assist.**
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 exhibits no signs of impaired memory and is oriented to person, place, time, and situation. A & O x 4. Patient is awake and alert.** **Patient is responsive to stimuli. Patient's speech is clear and regular.** **Pupils are 3 mm equal, round, and reactive to light with 2 step method bilaterally. Accommodation with convergence and constriction bilaterally. EOMs is intact bilaterally. Patient eyes had normal conjunctiva, no scleral icterus.** **Arms and legs were equal strength bilaterally.** **Speech was normal. Mental status was normal.**
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home**	**The patient lives with wife. Son lives close by. The patient seems to coping well and has a pleasant attitude. He has one years of college and has a normal developmental level. He is a Christian.**

environment, family structure, and available family support):	

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
7:41 am	**80**	**131/63**	**28 COPD**	**37.4**	**93% COPD.**
11:15 am	**70**	**137/70**	**28 COPD**	**36.1**	**94% COPD**

Vital Sign Trends:

The vital sign trend showed an increase in BP. Possibly because I did a head to toe assessment. The numeric pain score given by the patient decreased and his HR also decreased. The patient continued to have dyspnea.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
7:50	**Numeric**	**Right knee**	**5/10**	**Burning**	**Acetaminophen**
11:20	**Numeric**	**Right Knee**	**4/10**	**Burning**	**No interventions were implemented at that time.**

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:**	20g on the right dated 1/28. The patency was clear. There was no signs of erythema, or drainage. The IV dressing was dry and intact.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)

420 mL	**320 mL**

Nursing Care

Summary of Care (2 points)

Overview of care:

During the care of this patient I checked the vital signs two time. I gave, scanned and explained the medications to the patient. I later gave him and head to toe assessment.

Procedures/testing done:

No procedures or tests were done at the time of care.

Complaints/Issues:

No complaints or issues. However, the doctor mentioned that he didn't like the progress of his knee and was going to adjust his antibiotic.

Vital signs (stable/unstable):

The VS were stable. Although, the respirations were fast due to the COPD

Tolerating diet, activity, etc.:

Physician notifications:

The doctor mentioned that he didn't like the progress of his knee and was going to adjust his antibiotic.

Future plans for patient:

The patient was hoped to go home later that day. However, I'm not too sure since the doctor didn't like the progression.

Discharge Planning (2 points)

Discharge location:

The patient will be discharged home.

Home health needs (if applicable):

A home health service needs to come in two to three times a day.

Equipment needs (if applicable):

The patient will continue using the nasal cannula at 2L. The patient will use a walker.

Follow up plan:

The patient will need to follow up with the facility to verify that there is home health implemented and that his right knee has healed properly.

Education needs:

The patient need to understand the risks for uncontrolled DM.

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. Risk for falls related to altered mobility as evidence by Mors fall took score of 85 and unsteady gait.	**The patient fell often before being admitted to the hospital.**	**1.Assess home environment for safety risks** **2.Assist patient with moving and use a gait belt.**	**The patient will use a walker at home.** **The patient will have no more falls and PT will be implemented**
2. Acute pain related to irritation of the skin as evidence by impaired skin integrity.	**The patient had a rating of 10/10 when moving before being admitted to the hospital.**	**1. Teach patient how to manage pain by knowing to take pain medications.** **2.Continue to monitor the pain on a numeric scale of 0-10**	**The patient will no longer have acute pain and will know when it's time to take pain medications.** **The patient will no longer have pain in his right lower extremity.**
3. Ineffective	**The patient had**	**1. The patient will**	**The patient will no**

protection related to the presence of a sore on the coccyx as evidence by the Braden score of 13.	**a stage on pressure ulcer on his coccyx.**	**be repositioned every two hours.** **2Check the sheets and verify that they are clean and dry.**	**longer have a reddened area on his coccyx.** **The patient will not develop any more reddened areas.**
4. Disturbed body image related to changes of one limb as evidence by cellulitis	**The edema of the right lower extremity.**	**1. Talk with the patient about his feelings about the appearance of his extremity.** **2. Continue the prescribed medications to help alter the appearance of the leg.**	**The patient will accept the appearance of his lower extremity.** **The lower extremity will return to normal.**

Other References (APA):

Swearingen, P. L. (2015). *All-In-One Care Planning Resource*. Mosby.

Concept Map (20 Points):

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Subjective Data

The patient's pain score
The patient said he fell

Nursing Diagnosis/Outcomes

Risk for falls related to altered mobility as evidence by Mors fall took score of 85
The patient will use a walker as soon as he goes home within the next day.
The patient will have no more falls and PT will be implemented within a month.
Acute pain related to irritation of the skin as evidence by impaired skin integrity.
The patient will no longer have acute pain and will know when it's time to take pain medications as soon as he returns home in the next day.
The patient will no longer have pain in his right lower extremity.
Ineffective protection related to the presence of a sore on the coccyx as evidence by the Braden score of 13.
The patient will no longer have a reddened area on his coccyx within a couple of days..
The patient will not develop any more reddened areas within a couple of days..
Disturbed body image related to changes of one limb as evidence by cellulitis
The patient will accept the appearance of his lower extremity.
The lower extremity will return to normal.

Objective Data

The VS respirations were high
The cultures preformed showed the bacterial infection. Confirmed cellulites.
The Echo showed the ejection fractions 60 to 65 % grade 1.
The chest x-ray
The ekg showed normal sinus rhythm.
The CBC showed elevated WBC for an indication of an infection.
The ABG impaired gas exchange.

Patient Information

The onset of the pain was a few days before going to the hospital. The location was the "right knee" around the patellar. The duration of the pain was "constant for three to four days." The characteristic of the pain was "burning and stinging." According to the client, the only activity that notably helps alleviate the pain was to lie down. Moreover, the pain was still rated at an eight on a numeric scale of 1-10. Furthermore, the associated knee pain was aggravated when trying to walk or even stand up and was rated a ten on the numeric scale at that time. Also, the pain would increase in the mornings and at night time. He described the severity of the pain as "excruciating constantly." The last 24 hours before being admitted to the hospital, he could not stand and stated: "I would fall over every time I tried to walk."

Nursing Interventions

Risk for falls
1.Assess home environment for safety risks
2.Assist patient with moving and use a gait belt.
Acute Pain
1. The patient will be repositioned every two hours.
2Check the sheets and verify that they are clean and dry.
neffective protections
The patient will be repositioned every two hours.
heck the sheets and verify that they are clean and dry.
sturbed body image

Talk with the patient about his feelings about the appearance f his extremity.

2. Continue the prescribed medications to help alter the appearance of the leg.

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