N311 Care Plan 2

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N311: Foundations of Professional Practice

Professor Smalley

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Demographics (5 points)

Date of Admission 10/1/23	Client Initials D.T.	Age 44	Gender Male
Race/Ethnicity White	Occupation D118 Schools	Marital Status Single	Allergies None
Code Status Full Code	Height 5'11"	Weight 180	

Medical History (5 Points)

Past Medical History: Anxiety, Depression, Atherosclerosis of native artery of both lower extremities with intermittent claudication, Diabetic Foot Infection, Osteomyelitis of great toe, Psoriasis, Skin Ulcer of right great toe, Cellulitis of the foot, Hyperglycemia, Gastroesophageal Reflux Disease without Esophagitis, history of Venous Thromboembolism, Cellulitis left lower extremity, Diabetic Foot Ulcer associated with Diabetes Mellitus, Hyperlipidemia, Type 2 Diabetes Polyneuropathy without long term current use of insulin, Type 2 Diabetes Mellitus with other Diabetic neurological complication

Past Surgical History: Amputation of the 5th left ray on 8/20/23.

Family History: Mother- Diabetes

Social History (tobacco/alcohol/drugs including frequency, quantity, and duration of use): The patient denies any use of tobacco, smoking, or alcohol use.

Admission Assessment

Chief Complaint (2 points): Foot pain

History of Present Illness – OLD CARTS (10 points):

The patient states the onset of foot pain started on 9/29/23, prior to his admission on 10/1/23. The location affected is the left foot, of which he had an amputation of the 5th left ray on 8/20/23. The duration of the pain is continuous. The patient now rates the pain a 2/10 and could not describe the characteristics. Associated factors are the prior amputation. Aggravating factors are when he walks on it. Relieving factors are to lie or sit down and not walk. The patient denies any treatment on foot since prior amputation, with no timing related to treatment. The severity is 2 out of 10.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Infection of the left foot

Secondary Diagnosis (if applicable):

Pathophysiology

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

Osteomyelitis

Osteomyelitis is a bone infection usually caused by an organism called the Staphylococcus aureus bacteria (Capriotti, 2023). Osteomyelitis is one of the oldest diseases on record; scientists have tracked it back more than 250 million years, and it is known to affect around 2 to 5 out of every 10,000 (Cleveland Clinic, 2021). The most common culprit is the presence of foreign bodies, and punctures can frequently be caused through athletic shoes (Capriotti, 2023). If the patient has diabetes mellitus, the incidence rate is 16%, and anaerobes of the Bacteroides species Clostridium are prevalent pathogens (Capriotti, 2023). There are three basic types of osteomyelitis: hematogenous osteomyelitis, contiguous osteomyelitis, and chronic osteomyelitis (Capriotti, 2023).

The pathophysiology of hematogenous is when the bone is attacked with bacteria from the bloodstream, forming an abscess (Capriotti, 2023). The abscess then will deprive the bone of its blood supply, and the bone tissue will die and become necrotic (Capriotti, 2023).

Contiguous osteomyelitis begins with trauma or local extension, creating an inflammatory response and exudate formation (Capriotti, 2023). When the inflammatory response begins, the bone becomes weaker, which can lead to fracture (Capriotti, 2023).

Chronic osteomyelitis is when the infection has settled into the bone for a long time, such as weeks to months, the bone deteriorates, and the blood vessels are gone in the necrotic bone (Capriotti, 2023). Certain bacteria can then invade and thrive on necrotic tissue, discharge toxins, emit gas, and lead to gangrene (Capriotti, 2023).

The signs and symptoms of osteomyelitis include chills, fever, and malaise (Capriotti, 2023). Tenderness in the area, edema, erythema, and pain can also be present (Capriotti, 2023).

Often, patients with diabetes mellitus or peripheral vascular disease lack sensation and experience less pain; therefore, the infection may be farther along and more severe (Capriotti, 2023).

Diagnostic testing and history of medical conditions, IV catheter or drug use, or recent trauma can help determine the means of infection and the pathogen (Capriotti, 2023). Diagnosis can sometimes be challenging due to lab tests and cultures not indicating an infection (Capriotti, 2023). The complete blood count could show an elevated white blood count, but everything else can be normal (Capriotti, 2023). The erythrocyte sedimentation rate will be elevated in 90% of cases (Capriotti, 2023). X-rays usually do not identify anything until late in the osteomyelitis process, but CT scanning and ultrasonography can confirm infections (Capriotti, 2023). Magnetic Resource imaging best identifies soft tissue involvement (Capriotti, 2023). Culture on the bone should be performed on all patients unless a blood culture can identify the organism that invaded.

Pathophysiology References (2) (APA):

References

Capriotti, T. (2023). *Davis Advantage for pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

professional, C. C. medical. (2021). *Osteomyelitis (bone infection): Causes, symptoms & treatment*. Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/9495-osteomyelitis

Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
11am	63	128/89	16	97.2	98%

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
11 am	1-10 scale	Left Foot	2 out of 10	N/A	Pain medications and IV antibiotic

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
240 mL- water 240 mL- milk IV Piggyback Vancomycin – 250 mL per Professor Smalley Total= 730 mL	Void x2 per patient Total = 2 voids by patient

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** • How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Risk for Impaired Tissue Integrity related to inadequate blood glucose level management as evidenced by Diabetes diagnosis (Phelps, 2023).	**As stated in the medical chart, the patient does not control his Diabetes. One prior reading was a glucose level of 937.**	**1. Inspect patient's skin every shift; document skin condition and report any changes (Phelps, 2023).** **2. Monitor any wounds and surrounding tissue (Phelps, 2023).**	**1. The patient's tissue remains intact.**	**The client will monitor blood glucose levels to avoid the risk of inadequate blood glucose levels. The client will keep glucose levels within the normal range. The client will also take his insulin as prescribed.**
2. Impaired Physical Mobility as related to pain and amputation	**The patient had an amputation of the 5th ray on his left foot in**	**1. Monitor and record any evidence of immobility complications (Phelps,**	**1. The patient will maintain the highest level of mobility while taking the utmost care of**	**The client will remain mobile with a prescribed boot to help with mobility.**

on the left foot (5th ray) as evidenced by alteration in bone structure integrity from prior amputation (Phelps, 2023).	**August, which left an alteration in bone structure.**	**2023).** **2. Encourage attendance at physical therapy sessions (Phelps, 2023).**	**the left foot.**	

Other References (APA):

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

Concept Map (23 Points):

Subjective Data

-Pain level currently 2/10 out of a 1-10 scale
-Pain is continuous and started on 9/29/23
-Aggravating factors - when he walks on it
- Relieving factors - when he sits or lies down.
-No treatment on his foot since his amputation surgery on 8/20/23

Nursing Diagnosis/Outcomes

-Risk for Impaired Tissue Integrity related to inadequate blood glucose level management as evidenced by Diabetes diagnosis.

The outcome is patient's skin will stay intact

-Impaired Physical Mobility due to prior amputation of left 5th ray metatarsal and current Osteomyelitis diagnosis

The outcome is patient will retain mobility with a Diabetic boot to protect the foot and for stable walking

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Objective Data

-Computed Tomography on left foot suspicious for osteomyelitis

-Magnetic Resonance Imaging of the left foot showing bone marrow edema and 4th metatarsal showing Osteomyelitis with soft tissue swelling and possible cellulitis

-Patient has uncontrolled Diabetes Mellitus as evidenced by prior admission glucose of 937.

-Most recent labs were mostly normal with a few abnormal levels. Chloride and Calcium level slightly elevated.
-Basic Metabolic Panel- normal
-Vital signs within normal range with the exception slightly elevated blood pressure 128/89

Client Information

D.T. - 44-year-old white male
- Emergency Department on 10/1/23 with left foot pain.
-Amputation of the left 5th ray on 8/20/23
-Pain was more severe upon admission but now 2 out of 10

Nursing Interventions

-Monitor skin integrity
-Monitor wounds and surrounding tissue

-Monitor and record any mobility complications
-Encourage Physical Therapy Attendance

-Continue IV Antibiotics along with pain medications as prescribed
-Educate patient about uncontrolled Diabetes