N102 Nursing Care Plan - 2025

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Dates of Care: 2/11/24-2/12/24 **Patient Initials:** C.M

Medications

Ceftriaxone IVP: *Action: Binds to the bacterial cell wall membrane, causing cell death*, we will be giving this due to his osteomyelitis. Will be giving 2gm, Rate 240mL/hr., infuse over 5 minutes for 6 weeks for osteomyelitis, given Q24hrs
Daptomycin IVP: Action: Causes rapid depolarization of membrane potential following binding to bacterial membrane; this results in inhibition of protein, DNA, and RNA synthesis, this will also be given for osteomyelitis. Will be giving 430mg=8.6mL infuse over 2 mins Q24hrs
Cefepime IVPB: Action: Binds to the bacterial cell wall membrane, causing cell death, which we will be giving for osteomyelitis. Will be giving 2g at 25mL/hr and will infuse over 4hrs, given Q8hrs
Metronidazole: Action: Disrupts DNA and protein synthesis in susceptible organisms, giving for osteomyelitis. Will be giving 500mg q12hrs
Sodium Hydrochlorite topical: (Dakins half strength 0.25% topical solution) Action: used to clean wounds/ leg ulcers, it is an antibiotic. We are going to be giving 1 application BID for his infected right foot wound.
Insulin Glargine (Lantus): Action: Lowers blood glucose by stimulating glucose uptake in skeletal muscle and fat; inhibiting hepatic glucose production. We will be giving 35units Q24hrs for type 2 diabetes, this is important to keep his blood glucose under control and prevent hyperglycemia.
Insulin Lispro (Humalog): Action: Lowers blood glucose by stimulating glucose uptake in skeletal muscle and fat, inhibiting hepatic glucose production. We will be giving 5 units SQ TIDAC high scale for diabetes, using to prevent hyperglycemia.

Admitting Diagnosis: Osteomyelitis

Patient Problem #1: Impaired Skin Integrity

Clinical Reasoning: osteomyelitis, 3 open wounds on foot, right 2nd toe amputation, returned from surgery after I&D irrigation and debridement.

Diagnostic Studies

Labs
WBC:14.2 (H) (2/6/25) 10.2 (H) (2/12) Rational: underwent surgery on 2/11. Small Elevation in WBC is common after surgery and doesn't last more than 24 hours, he also has osteomyelitis which is causing the elevation in WBCs.
Albumin: 3.5 (N) (2/5/25) 2.6 (L) (2/11/25) 2.7 (L) (2/12/25) **Rationale:** low albumin levels are linked to delayed wound healing, and due to his large diabetic ulcer, this is not good.
Bone Culture: 2/6/25-positive for enterococcus faecalis, streptococcus anginous group on R wound foot.
Wound Culture: 2/5/25- positive for streptococcus anginous group, staphylococcus epidermidis
Blood Culture: 2/5/25- on 2/10/25 there was no growth on day 5
Glucose: 215 (H) (2/11/25) 264 (H) (2/12/25): due to diabetic wound it is important we are monitoring his glucose and keeping it under control, his glucose is high to due his infection, which can raise blood glucose
XR foot complete right 2/5/25: bone tissue death found in the right 1st MTP joint. The skin is positioned about 7mm from the sesamoid bones, underneath the head of the 1st metatarsals 2/6/25: toe amputation at the 2nd MTP joint
MRI foot (2/5/25): abnormally found in the proximal phalanx of the 2nd toe, indicative of acute osteomyelitis. Severe edema with dorsal (5x2x2) and plantar (3x1x2) fluid collection. Diabetic Neuropathy speculated. Small artifact of the plantar foot under the 2nd toe, a foreign body speculated.
PVR lower extremity (chronic wound): due to his diabetes and neuropathy he may not be getting proper blood flow to his legs and feet.

Treatments/ Therapies/ Orders

-Blood Glucose Monitoring QID- due to Diabetes Mellites type 2
-Boot Right Heel WB- using to not put pressure on the front of his foot where amputation is.
Dressing Change (Dakins moistened packing, left foot, non-stretch gauze BID)- due to 2nd toe amputation and diabetic foot wound
-**Outpatient Wound Care center**- continue observation of wound and ensure it is healing properly.
-**I. D wound care:** managing the wound to prevent further infection, monitoring and ordering antibiotics for osteomyelitis.
-Change NPWT canister Weekly-in order to clear exudate from the wound, if its not emptied it may back up, he is ordered to have wound vac changed M, W, F
-If wound vac is removed, apply moist saline- to ensure a moist heeling environment, preventing wound from getting too dry.

Own Assessments & Chart Data

H&P:(2/5/25) CC-right heel/foot wound 64 y/o male w hx of DM type 2, AKI, HTN presented to ED for evaluation of wound to the right foot on the plantar aspect. States that he noticed it last week. Reports that it was originally a callus that burst open. States that it has not healed, and it has worsened. States he has chill on and off but otherwise denies any other objective symptoms.
Progress Note (2/11/25) from hospitalist feels pretty good, pain in his right foot is only a 1/10, eating and drinking well. Osteomyelitis proximal phalanx of the second toe with cellulitis and multifocal abscess, taken back to OR today for I&D of nonviable tendon. Will continue to stay on IV daptomycin and IV ceftriaxone and oral flagyl until 3/24.
Own Assessments: 2/11/25: grade 3 diabetic foot ulcer on right dorsum foot, with a middle toe amputation- measuring 5 ½ by 1 ½. 2 deep surgical wounds on plantar foot, 1st wound on upper plantar foot measured ¼ and the lower plantar foot wound measured ½ by ¼. (measured wounds with Dr. Chua) No order, scant serosanguineous exudate. Some necrotic tissue within the wound. **VS:** 146/80, HR-92, SpO2-93% on RA, RR-18, T-36/8**. LLE & RLE**- pulses are palpable and strong, no pain or edema, capillary refill less than 3 seconds. **2/12/25:** Grade 3 diabetic foot ulcer on right dorsum foot with middle toe amputation, two deep surgical wounds on the plantar foot. No odor, small serosanguinous exudate. **VS**: 134/80, HR-86, RR-20, SpO2- 95% on RA, T-36.5 **RLE and LLE**: pulses are palpable and strong, no pain or edema, capillary refill less than 3 seconds.
Infectious Disease Note (2/12/25): He will complete 6 weeks of antibiotics through PICC for severe infection tenosynovitis with bone culture positive for osteomyelitis. Progress Note Infectious Disease 2/10/25
Treat wound infection, osteomyelitis and cellulitis with ceftriaxone, daptomycin, and metronidazole until 3/24/25.
Right foot dorsal wound. 4.5 x 1.5 x 1.5 cm, Right foot ventral wound upper wound is 0.5 x 0.5 x 1 cm, lower wound is 0.5 x 0.5 x 1 cm**.**
Wound Care note (2/11/25): He has a wound infection, osteomyelitis. Going to OR for right foot washout, wound debridement, incision and drainage. Continues to have purulent drainage from amputation site. Will continue IV antibiotics, and has a wound vac ordered. **Wound Care note (2/12/25):** Wound vac applied by wound care nursing today. Will have wound vac changed M, W, F by home health nurse. PICC line will continue to stay in place per ID for osteomyelitis.
OR Note: (2/11/25) - attention to the right foot where a dorsal foot open amputation was appreciated two plantar

Patient Problem #1: Impaired Skin Integrity	Patient Problem #2 (CM #2 only)
Goal #1: Wound dressing will stay clean, dry and intact during my time of care.	Goal #1
Goal #2: Wound size will not get any larger during my time of care.	Goal #2
Assessments (with time frames and rationale **1.Assess wound dressing Q4hrs and PRN**: we are going to want to assess the dressing to make sure it is clean, dried, and intact and change it as we notice drainage to prevent further irritation. **2.Assess wound for edema, erythema, and drainage Q4hrs and PRN**: If there is redness or swelling that could be potential signs of a worsening infection/inflammation so it is important we start interventions right away if this occurs. **3.Assess Braden score daily**: assessing Braden scale will show us at how much of a risk is he for developing further skin breakdown injuries. **4.Assess blood glucose level at mealtime:** making sure we are assessing blood glucose is important because he has Type 2 diabetes and has a diabetic foot wound. **5.Assess meal trays at mealtime for percentage of meals**: eating enough protein will help to maintain skin integrity. **6.Assess order for wound vac changing and assess for drainage in wound vac Q4hrs:** making sure wound vac is draining properly and in the correct spot is very important for wound healing.	Assessments (with time frames and rationale
Nursing Interventions 1.Assist with wound care by using Dakin's moistened packing 0.25% topical solution, and non-stretch roll gauze to change dressing on right foot BID. **Rationale: Making sure the wound is cleaned, and dried with a fresh dressing is very important to prevent further skin irritation and breakdown.** 2.If the wound has edema/erythema, administer Cefepime IVPB 2gm at 25mL/hr Q8hrs. **Rationale: Due to edema and erythema near his wound, this could be a sign of inflammation or infection, so it is important he is getting all his appropriate doses of antibiotics to heal properly.** 3. Ensure that the heel of his foot is floating Q2hrs **Rationale: Elevating his foot and keeping his heel off the bed will help to prevent further skin breakdown to other boney prominences of his foot.** 4. If blood glucose is too high, we can administer Insulin Lispro 5 units SQ for his diabetes. **Rationale: We want to make sure that blood glucose is regulated to promote proper wound healing.** 5. If we notice he is not eating enough protein off his meal try it may be important to ask for supplement such as ensure at mealtimes. **Rationale: Eating protein is very important to help with wound healing and to help maintain skin integrity. Protein is the main component in tissue repair which is very important.** 6. Will assist wound care nurse with wound vac placement PRN. **Rationale: Making sure there is correct placement of the wound vac is very important to promote proper healing of the wound, and to make sure the wound is draining properly.**	Nursing Interventions 1. Rationale: 2. Rationale: 3. Rationale: 4. Rationale: 5. Rationale: 6. Rationale: