Medications

Bupropion SR (Wellbutrin SR)
Pharmacological Classification: Norepinephrine & dopamine reuptake inhibitor (Jones & Bartlett Learning, 2022)
Therapeutic Classification: Antidepressants, Dopamine Reuptake Inhibitors
Reason for Taking: Antidepressant (Jones & Bartlett Learning, 2022)
Nursing Interventions: Give drug three times a day for depression; do not administer more than 150 mg in any one dose (Jones & Bartlett Learning, 2022).

Enoxaparin (Lovenox)
Pharmacological Classification: Low molecular weight heparins (Jones & Bartlett Learning, 2022)
Therapeutic Classification: Anticoagulants, Cardiovascular; Anticoagulants, Hematologic (Jones & Bartlett Learning, 2022)
Reason for Taking: Reduce the chance of getting a blood clot
Nursing Interventions: Assess for signs of bleeding, check platelet count (Jones & Bartlett Learning, 2022).

Gabapentin (Neurontin)
Pharmacological Classification: Anticonvulsant (Jones & Bartlett Learning, 2022)
Therapeutic Classification: Anticonvulsant (Jones & Bartlett Learning, 2022)
Reason for Taking: Prevent seizures and relieve neuropathy pain
Nursing Interventions: Do not crush or chew it, titrate gradually for one week (Jones & Bartlett Learning, 2022).

Lisinopril (Prinivil, Zestril)
Pharmacological Classification: ACE Inhibitor (Jones & Bartlett Learning, 2022)
Therapeutic Classification: ACE Inhibitor (Jones & Bartlett Learning, 2022)
Reason for Taking: HTN
Nursing Interventions: Monitor blood pressure (Jones & Bartlett Learning, 2022)

Lab Values/Diagnostics

Potassium: 3.3 mmol/L Normal: 3.5-5.0 mmol/L
Reason for Abnormal Value: Potassium is low due to the patient being on Zosyn (Jones & Bartlett Learning, 2022).

Blood glucose: 163 mg/dL Normal: 80-120 mg/dL
Reason for Abnormal Value: Blood glucose is high due to the patient having breakfast (Jones & Bartlett Learning, 2022).

WBC: 13.90 10(3)/mcL Normal: 4.00-12.00 10(3)/mcL
Reason for Abnormal Value: WBCs are high due to the patient's cellulitis infection (Jones & Bartlett Learning, 2022).

Neutrophils: 73.4% Normal: 47.0-73.0%
Reason for Abnormal Value: Neutrophils are high due to the patient's cellulitis infection (Jones & Bartlett Learning, 2022).

Lymphocytes: 16.2% Normal: 18.0-42.0%
Reason for Abnormal Value: Lymphocytes are low due to the patient's cellulitis infection (Jones & Bartlett Learning, 2022).

Absolute Neutrophils: 10.20 10(3)/mcL Normal: 2,500-6,000 10(3)/mcL
Reason for Abnormal Value: Absolute neutrophils are low due to the patient's cellulitis infection (Jones & Bartlett Learning, 2022).

Absolute Monocytes: 1.00 10(3)/mcL Normal: 2-8 10(3)/mcL
Reason for Abnormal Value: Absolute Monocytes are low due to the patient's cellulitis infection (Jones & Bartlett Learning, 2022).

Demographic Data

Date of Admission: 2/2/23
Admission Diagnosis/Chief Complaint: Swelling of left lower leg/Cellulitis
Age: 38 years old
Gender: Male
Race/Ethnicity: Caucasian
Allergies: No known allergies
Code Status: Full Code
Height in cm: 185.42 cm
Weight in kg: 190.962 kg
Psychosocial Developmental Stage: Intimacy vs Isolation
Cognitive Developmental Stage: Formal Operational Stage
Braden Score: 22
Morse Fall Score: 56
Infection Control Precautions: clean wound daily, cover wound with bandage, good hygiene

Admission History

Ben came into the emergency room on 2/2/23. He presented with swelling and erythema of his left lower extremity a couple days prior. The swelling had gotten worse and is constant, there are no other characteristics noted. Associated factors include a headache and no relieving factors noted. He has never been treated for cellulitis before. He has had a foot ulcer on his left foot for about a month. The severity is a zero on the numeric scale of one to ten.

Medical History

Previous Medical History: obesity, MVC, neuropathy, sleep apnea, GERD

Prior Hospitalizations: MVC 6/11/17 and cellulitis 2/2/23

Previous Surgical History: exploratory laparotomy, bilateral chest tube placement, central line placement, casting of left foot

Social History: never used tobacco or smokeless tobacco, no use of drugs, social use of alcohol

Pathophysiology

Disease process: Cellulitis is caused when bacteria, most commonly streptococcus and staphylococcus, enter through a crack or break in the skin causing an infection. Cellulitis can occur anywhere on the body, but the most common location is the lower leg (Capriotti, 2020). Bacteria are most likely to enter broken, dry, flaky, or swollen skin, such as through a recent surgical site, cuts, puncture wounds, ulcers, athlete's foot, or dermatitis. Recurrent episodes of cellulitis may damage the lymphatic drainage system and cause chronic swelling of the affected limb (Phelps, 2020).

S/S of disease: In general, cellulitis appears as a red, swollen, and painful area of skin that is warm and tender to the touch. The skin may look pitted, like the peel of an orange, or blisters may appear on the affected skin. Some people may also develop fever and chills. Cellulitis can appear anywhere on the body, but it is most common on the feet and legs. The signs and symptoms the patient exhibited were swelling and redness (Phelps, 2020).

Method of Diagnosis: Doctors typically diagnose cellulitis by looking at the affected skin during a physical examination. Blood or other labs tests are not needed to confirm the diagnosis, but a high white blood count can indicate an infection. The physician was able to diagnose cellulitis based off the look of his leg as well as a high white blood count (Capriotti, 2020).

Treatment of disease: Doctors treat cellulitis with antibiotics. Oral antibiotics are used to treat most the cellulitis infections. Intravenous antibiotics are used to treat more severe cases of cellulitis. If the infection is in the arm or leg, keeping the limb elevated can help decrease swelling and speed up the recovery process. The patient is being treated with intravenous Zosyn and is keeping his left lower leg elevated (Capriotti, 2020).

Active Orders

Code Status: Full treatment/Reason: patient wishes
Diet and Nutrition: Regular diet/Reason: keep nutrition stable
Lab: BMP/Reason: check electrolyte imbalances
CBC with diff/Reason: check on infection
Respiratory pulse oximetry, spot/Reason: monitor patient status
Admission Weight/Reason: needed accurate weight
Elevate Extremity/Reason: LLE swelling
Intake and Output/Reason: to track fluids, voids, and stools
Notify Physician/Reason: any abnormal vitals/changes in patient
Sequential Compression Devices/Reason: adjunct to anticoagulant Thromboprophylaxis
Up as tolerated/Reason: independent at home, keep moving as tolerated
Up w/assistance/Reason: LLE swelling, fall risk
Vital signs per unit routine/Reason: monitor patient status
Wound dressing (left plantar foot)/Reason: foot ulcer
Wound dressing (left lower leg)/Reason: cellulitis of left lower leg

Physical Exam/Assessment

General: Patient is alert and oriented to person, place, time, and situation. Patient is in no acute distress and well-groomed.

Integument: Skin is normal for ethnicity, warm, and dry. 20 G in right AC, clean, dry, and intact. **LLE swelling with redness and rash (diagnosis of cellulitis). Left foot has an ulcer.** Skin turgor is normal mobility. Capillary refill is less than 3 seconds in fingers and toes bilaterally.

HEENT: Head and neck are symmetrical, trachea is midline without deviation, thyroid is not palpable, no noted nodules. Auricles are pink and moist with no lesions noted bilaterally. Bilateral pulses are palpable and 2+. PERRLA, EOMs intact. Sclera is white bilaterally, cornea clear bilaterally, conjunctiva pink bilaterally, lids are pink and moist without lesions. Septum is midline, turbinates are pink and moist bilaterally and no visible bleeding or polyps present. Frontal and maxillary sinuses are nontender to palpation bilaterally. Dentition good, oral mucosa is dry and pink with no lesions noted**.**

Cardiovascular: Clear S1 and S2 without murmurs, gallops, or rubs. PMI palpable at fifth intercostal space at MCL. Normal rate and rhythm.

Respiratory: Normal rhythm rate and pattern of respirations, respirations symmetrical, no respiratory distress. No wheeze, crackles, rhonchi noted.

Genitourinary: Urine is yellow without foul odor, no reported, observed difficulties, or pain while voiding.

Gastrointestinal: Abdomen is nondistended, soft, and nontender to palpation. No CVA tenderness noted bilaterally. Last BM 2/6/23.

Musculoskeletal: All extremities have full ROM. Hand grips and pedal pushes and pulls demonstrate normal and equal strength for patient's baseline. Patient ambulates independently to the bathroom. **Patient has generalized weakness, drop foot, and neuropathy (**due to a motorcycle accident fifteen years ago; patient's baseline since the accident).

Neurological: Patient is calm, cooperative, and pleasant. Patient has been resting. Patient is alert and oriented to person, place, time, and situation. PERRLA bilaterally. Speech is clear.

Most recent VS (include date/time and highlight if abnormal):

Time: 1500 Temp: 97.8 degrees Fahrenheit Heart Rate: 66 bpm Respiratory Rate: 17 Blood Pressure: **141/80 mm Hg** O2: 95% on room air Pain: 0 on numeric scale

Pain and pain scale used: Patient rates his pain a zero out of ten on the number scale.

Nursing Diagnosis 1 Ineffective tissue perfusion related to extremity edema as evidenced by swelling of left lower leg.	**Nursing Diagnosis 2** Risk for disturbed sensory perception related to peripheral neuropathy as evidenced by plantar ulcer.	**Nursing Diagnosis 3** At risk for acute pain related to edema as evidenced by erythema, rash, and headache.
Rationale I chose this diagnosis because of the patient's cellulitis and long-term neuropathy.	**Rationale** I chose this diagnosis because neuropathy can cause one to not realize they have wounds due to the loss of feeling.	**Rationale** I chose this diagnosis because the patient is at risk for pain due to his edema, rash, and neuropathy.
Interventions **Intervention 1:** Check for optimal fluid balance and administer IV fluids as ordered to maintain adequate tissue perfusion (Phelps, 2020). **Intervention 2:** Maintain optimal cardiac output to ensure adequate perfusion of vital organs (Phelps, 2020).	**Interventions** **Intervention 1:** Teach proper wound and foot care to prevent injury and infection (Phelps, 2020). **Intervention 2:** Teach client signs and symptoms of infection for early detection of injury (Phelps, 2020).	**Interventions** **Intervention 1:** Assess patient's pain level with nonpharmacological methods of pain relief (Phelps, 2020). **Intervention 2:** Educate the patient regarding effective timing of medication doses prior to activities that exacerbate pain and to avoid periods of intense pain (Phelps, 2020).
Evaluation of Interventions Patient will have improved tissue perfusion to the left lower leg.	**Evaluation of Interventions** Patient will be able to recognize and compensate for existing sensory impairments as well as care for his wounds.	**Evaluation of Interventions** Patient will be able to tell pain level and maintain it as well as show understanding of effective timing of medication administration.

Medications Continued

Pantoprazole (Protonix)

Pharmacological Classification: Proton Pump Inhibitor (Jones & Bartlett Learning, 2022)

Therapeutic Classification: Proton Pump Inhibitor (Jones & Bartlett Learning, 2022)

Reason for Taking: GERD

Nursing Interventions: Make sure to check respiratory rate and rhythm (Jones & Bartlett Learning, 2022).

Piperacillin-tazobactam (Zosyn)

Pharmacological Classification: Penicillin's, Extended-Spectrum (Jones & Bartlett Learning, 2022)

Therapeutic Classification: Penicillin's, Extended-Spectrum (Jones & Bartlett Learning, 2022)

Reason for Taking: cellulitis infection

Nursing Interventions: Make sure patient isn't allergic to antibiotic, make sure patient doesn't have a clotting disorder (Jones & Bartlett Learning, 2022)

Vilazodone HCL Tabs (Viibryd, Forest/Trovis)

Pharmacological Classification: Selective serotonin reuptake inhibitors (SSRIs) (Jones & Bartlett Learning, 2022)

Therapeutic Classification: Antidepressant, Selective serotonin reuptake inhibitors (Jones & Bartlett Learning, 2022)

Reason for Taking: Antidepressant

Nursing Interventions: Take with food, monitor for adverse effects (hypotension, cardiac arrhythmias) (Jones & Bartlett Learning, 2022)

Lab/Diagnostic Testing Continued

XR Tibia and Fibula Left

Impression: no bony abnormality, no osteomyelitis noted.

Reason: Swelling of LLE

XR Foot 3 or More View Left

Impression: no bony abnormality, no osteomyelitis noted. Soft tissue swelling noted.

Reason: Swelling of LLE and foot ulcer

US Venous Duplex Lower Extremity Left

Impression: This is consistent with no thrombosis, no evidence of deep or superficial venous thrombosis.

Reason: DVT rule out

CT Left Lower Leg with and without Contrast

Impression: Fat stranding noted along the anterior and lateral part of the lower leg and along the anterior and lateral part of the ankle secondary to cellulitis. This is also seen anterior to patella. Mid knee joint effusion noted. No abscess formation seen. No focal fluid collection noted.

References (3) (APA):

Capriotti, T. (2020). *Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives.* 2nd ed., F.A. Davis, 2020.

Jones & Bartlett Learning, LLC. (2022*). 2022 Nurse's Drug Handbook* (20th ed.).

Phelps, L. L. (2020). *In Spark's & Taylor's Nursing Diagnosis Reference Manual 11th ed. Essay*. Wolters Kluwer.