

Medications

-cefTRIAxone (Rocephin)- The patient received cefTRIAxone through injection, 2g every 24 hours, due to cellulitis (NDH, 2023).

Pharmacological Class- Third-generation cephalosporin (NDH, 2023) Therapeutic Class- Antibiotic (NDH, 2023)

Key Nursing Assessment- obtain culture and sensitivity results, if possible and as ordered before giving drug (NDH, 2023)

-furosemide (Lasix)- The patient had a furosemide injection, 20mg once a day, for the patient's swelling (NDH, 2023).

Pharmacological Class- Loop Diuretic (NDH, 2023) Therapeutic Class- Antihypertensive, diuretic (NDH, 2023)

Key Nursing Assessment- Obtain patient's weight before and during administration to monitor fluid loss (NDH, 2023)

-HEParine (Porcine)- The patient had HEParine injection, 7,500 units every 8 hours, due to prevention for the patient's blood clots (NDH, 2023).

Pharmacological Class- Anticoagulant (NDH, 2023) Therapeutic Class- Anticoagulant (NDH, 2023)

Key Nursing Assessment-Avoid injecting any drugs by I.M route during heparin therapy to decrease the risk of bleeding and hematomas (NDH, 2023)

-Iron sucrose (VENOFER)- The patient had an iron sucrose injection of 200mg, 5 doses per day due to possible kidney disease (NDH, 2023).

Pharmacological Class- Iron Mineral (NDH, 2023) Therapeutic Class- Hematinic (NDH, 2023)

Key Nursing Assessment-Watch for evidence of iron overloads, such as bleeding in the GI tract and lungs (NDH, 2023)

-Vancomycin HCl in NaCl- The patient had vancomycin intravenous 1,250 mg every 24 hours due to the patient having a UTI or cellulitis (NDH, 2023).

Pharmacological Class- Glycopeptide (NDH, 2023) Therapeutic Class- Antibiotic (NDH, 2023)

Key Nursing Assessment-Check patient's CBC results and BUN levels and serum creatine levels during therapy (NDH, 2023)

-0.9% Sodium Chloride Solution- The patient had continuous intravenous, 35mL/hr to help with the patient's possible dehydration

Pharmacological Class- mineral and electrolyte replacements/supplements (NDH, 2023) Therapeutic Class- mineral and electrolyte (NDH, 2023)

Key Nursing Assessment- Monitor where the IV is inserted

Lab Values/Diagnostics

Chloride- 113mmol/L (98-107) – Levels could be high due to UTI or dehydration in the patient (Martin, 2023).

Creatine, blood- 1.22mg/dL (22-30) Levels could be low due to possible malnutrition in the patient (Martin, 2023).

Total Protein- 6.2g/dL (6.3- 8.2) Total protein could be low due to possible dehydration in the patient (Martin, 2023).

Albumin- 2.7 g/dL (3.5-5.9) Albumin is low in the patient from having UTI (Martin, 2023).

A/G Ratio- 0.8 (1.0-2.2) Patient had a low A/G ratio due to possible kidney infection (Martin, 2023).

Calcium- 8.3mg/dL (8.7- 10.5) Calcium due to possible acute renal failure in the patient (Martin, 2023).

GFR est Nonafrican- 45 (>=60) GFR could be low from a patient having a possible kidney infection (Martin, 2023).

GFR est African- 55 (>= 60)) GFR could be low from the patient having a possible kidney infection (Martin, 2023).

GRF est- 52 (>=60)) GFR could be low from the patient having a possible kidney infection (Martin, 2023). imaging

The patient had bilateral duplex lower extremity veins due to swelling. Right/Left impression normal

The patient had a CT abdomen pelvis without contrast due to pain in the abdomen. The patient had a faintly calcific destiny found in the gallbladder.

Demographic Data

Date of Admission: 8-24-23

Admission Diagnosis/Chief Complaint: CC: Lower Extremity swelling. Diagnosis: Cellulitis

Age: 57

Gender: Female

Race/Ethnicity: Caucasian

Allergies: No Known Allergies

Code Status: Full

Height in cm: 165.1 cm

Weight in kg: 123kg

Psychosocial Developmental Stage: Generativities vs. Stagnation

Cognitive Developmental Stage: Formal Operational

Braden Score: 19

Morse Fall Score: 75

Infection Control Precautions: N/A

Admission History

The patient's lower legs started swelling about a month ago, and she sought care after the pain worsened. That is when her friend encouraged her to seek help. The patient said she had swelling on and off for a few years. Her legs were swollen, and red. Walking made the pain and swelling worse. Sitting down would relieve the pain. The patient took Tylenol at home for the pain. Her severity of pain was high.

Medical History

Previous Medical History: Anxiety, Schizophrenia

Prior Hospitalizations: 1/20/19 for Depression

Previous Surgical History: Tear Duct Surgery

Social History: Patient does not smoke or drink

Pathophysiology

Disease process:

Cellulitis, in its most basic form, is an infection-causing organism. The bacterial infection that causes cellulitis is commonly found in group *Streptococcus* or *Staphylococci aureus* (Hinkle et al., 2021). The condition typically occurs when there is a break in the subcutaneous tissues where the bacteria can enter. There, it can assault and overwhelm the white blood cells. As the bacteria progresses, it spreads to the neighboring tissues, damaging the cells and causing inflammation (Hinkle et al., 2021). The body's inflammation response is from injured cells that were harmed by the bacteria (Hinkle et al., 2021). The injured cells release chemicals like histamine that will cause blood vessels to leak fluid into the near tissue, resulting in swelling and cellulitis (Hinkle et al., 2021). Left untreated, it can cause osteomyelitis, endocarditis, bacteremia, or suppurative arthritis (Hinkle et al., 2021).

S/S of disease: One of the first signs of cellulitis is redness and swelling due to the body's response to the bacteria. Pain will be felt around the red and swollen area (Hinkle et al., 2021). Redness and swelling will be localized. Fever, chills, and sweating could be associated with cellulitis. Lymph nodes near the infected area could be enlarged or tender (Hinkle et al., 2021). The patient's first sign of cellulitis was redness in her lower legs. Her swelling started soon after. The swelling was bad enough that she could not walk due to the pain it caused. The patient did not suffer from fever or chills. She sustained wounds on her lower extremities from an accident. That is where the bacteria entered.

Method of Diagnosis: A doctor can usually look at the area during a physical examination and have a professional judgment on the diagnosis before any labs are completed. A blood test could determine whether white blood cells are elevated (Hinkle et al., 2021). The patient had a physical assessment conducted. It was found that she had red skin and edema on her lower extremities. Blood work was run, and it was found that her WBC was elevated.

Treatment of disease: Cellulitis is treated with antibiotics (Hinkle et al., 2021). The infection can be treated with oral antibiotics if it is not severe. If the condition is painful, an intravenous antibiotic (IV) will be used to give the medicine directly to the vein. To help prevent a reoccurring episode, the site of the entry can be identified and healed. It is recommended to elevate the affected areas (Hinkle et al., 2021). The patient was prescribed an IV antibiotic to treat her cellulitis. The wound nurse treated the wound on her leg. A wrap was applied to the injury. Her legs were elevated with pillows underneath her ankles to help relieve swelling.

Active Orders

-High protein diet due to patient having low total protein

-IP to Nephrology due to patient having a UTI

-CMP due to patient being diagnosed with cellulitis

-Complete blood count due to patient having inflammation from cellulitis and UTI

-Would care due to patient having open wound on lower leg

Physical Exam/Assessment

General: Alert and Oriented x 4, no acute distress, and well-groomed

Integument: Skin was red and hot to the touch. Open lesion and edema on lower extremities. Nails without clubbing. Skin turgor is normal.

HEENT: Head and neck symmetrical. Ears had no deformities, lesions, or no drainage bilaterally. The trachea was midline without deviation. Eyes had bilateral white sclera, clear, no discharge. PERRLA is intact bilaterally, with the red light reflex present. EMOs intact bilaterally. Tonsils are moist and pink without exudate. Tonsils are at. 2+. Uvula is midline. Soft pallet rises and falls symmetrically. All teeth were intact. Lymph nodes non-palpable

Cardiovascular: S1 and S2 presented without murmurs and gallops. PMI was palpable. Normal rate and rhythm. Pulses 2+. Capillary less than 3 seconds on hands. Capillary refill could not be done on feet due to wound care.

Respiratory: Normal rate and rhythm. Breaths were non-labored and symmetrical. Lungs were clear, with no wheezing or crackles.

Genitourinary: Urine was yellow and clear. The patient had average urine output. Pain while urinating. No catheter.

Gastrointestinal: The abdomen was soft and nontender. The patient had no masses or enlarged organs found. Bowel sounds were normal and present in all four quadrants.

Musculoskeletal: ROM was affected on the lower extremity, and the patient did not want to move due to pain. Hand grips and pedal pushed strength was at a three bilaterally.

Neurological: Normal cognition. Speech is clear. The patient was awake. Short and long memory was intact.

Most recent VS (include date/time and highlight if abnormal): BP: 134/69 P: 85 O2: 98% Temp: 36.6 RR: 16

Pain and pain scale used: 0-10. Verbal: 2/10

<p align="center">Nursing Diagnosis 1</p> <p align="center">Impaired Comfort related to leg cellulitis as evidenced by verbalized discomfort and decreased ADL mobility.</p>	<p align="center">Nursing Diagnosis 2</p> <p align="center">Impaired walking related to leg swelling as evidenced by the patient being unable to move around independently.</p>	<p align="center">Nursing Diagnosis 3</p> <p align="center">Risk for constipation related to medicine as evidenced by her taking iron.</p>
<p align="center">Rationale</p> <p align="center">The patient is in pain and is unable to walk due to diagnoses of cellulitis.</p>	<p align="center">Rationale</p> <p align="center">The patient had swelling in both legs and was a fall risk.</p>	<p align="center">Rationale</p> <p align="center">The patient is taking iron, and constipation is one of the side effects.</p>
<p align="center">Interventions</p> <p>Intervention 1: Monitor pain level using a scale of 0 to 10 (Phelps, 2021).</p> <p>Intervention 2: Provide a quiet and relaxing atmosphere (Phelps, 2021).</p>	<p align="center">Interventions</p> <p>Intervention 1: Ensure the patient maintains anatomically correct and functional body positioning (Phelps, 2021).</p> <p>Intervention 2: Provide progressive ambulation up to the limits imposed by the patient's condition (Phelps, 2021).</p>	<p align="center">Interventions</p> <p>Intervention 1: Encourage fluid intake (Phelps, 2021).</p> <p>Intervention 2: Record intake and output accurately (Phelps, 2021).</p>
<p align="center">Evaluation of Interventions</p> <p>The patient reported periods of rest, so the intervention was successful. The patient reported her pain at a 2/10, so the intervention was successful.</p>	<p align="center">Evaluation of Interventions</p> <p>The patient's position was successful due to positioning her with pillows and elevating legs. The patient was getting up to use the bathroom with assistance, so the intervention was successful.</p>	<p align="center">Evaluation of Interventions</p> <p>The patient did not drink the water given, so the intervention was unsuccessful. The patient's intake and output were recorded, so the intervention was successful.</p>

References

Hinkle, J., Cheever, K., & Overbaugh, K. (2021). *Textbook of medical-surgical nursing*. (15th ed). Wolters Kluwer

Martin, P. (2023). *Complete normal lab values reference guide cheat sheet*. Nurselabs. <https://nurseslabs.com/normal-lab-values-nclex-nursing/#h-total-calcium-ca-ionized-calcium>

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Phelps, L. (2021). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer

