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| **Maryland Next Gen NCLEX Test Bank Project**  **May 14, 2023** | | | |
| **Case Study Topic**:  (& stand-alone trend) | Breast Cancer | **Authors:** | Kimberly Allen, DNP, RN, CNE  Stephanie Howard, MS, CRNP, FNP-C  Lisa Seldomridge, PhD, RN, CNE  Salisbury University |

**Case Summary**

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| Client is 48-year-old black female who had received a diagnosis of triple negative breast cancer of her right breast and subsequently underwent a radical R breast mastectomy including removal of multiple axillary lymph nodes 45 days ago. Client finished first of six cycles of chemotherapy 10 days ago. Presented to the oncology clinic with weakness, numbness, tingling and swelling of the right arm. The nurse takes action to prioritize and manage side effects of the treatment regimen and enhance client self-management. |

**Objectives**

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| 1. Identify signs and symptoms of complications from chemotherapy.  2. Recognize signs and symptoms of complications from breast cancer surgery.  3. Plan care for a client experiencing bone marrow suppression.  4. Educate client about self-care for lymphedema.  5. Identify cues that indicate improvement of client condition. |

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| **Case Study Link** | **Case Study QR Code** |
| <https://umaryland.az1.qualtrics.com/jfe/form/SV_6EuNeOemgE150Tc> |  |
| **Trend QR Code** | **Trend Link** |
|  | <https://umaryland.az1.qualtrics.com/jfe/form/SV_3fy214anVjfOxcq> |

**Case References**

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| 1. Ignatavicius, D.D., Workman, M. L., Rebar, C. R., & Heimgartner, M. N. (2022). *Medical-surgical nursing: Concepts for interprofessional collaborative care* (10th ed.), Elsevier. 2. Burcham, J., & Rosenthal, L. (2022). *Lehne’s pharmacology for nursing care* (11th ed.)., Elsevier Saunders. |

**Case Study Question 1 of 6**

The nurse cares for a 48-year-old female client who presents to the oncology clinic with complications following a mastectomy.

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| **Admission Notes** | |
| 1000: Presents with R arm weakness, numbness, tingling and swelling for past 48 hours. Significant history includes a right-sided radical mastectomy and removal of multiple axillary lymph nodes 45 days ago for triple-negative breast cancer. Client finished her first of six cycles of chemotherapy 10 days ago. L side single lumen implantable port present. Reports “my R arm aches and feels tight. I am really worried about what’s wrong.” Spouse at bedside. Right upper extremity Doppler ultrasound pending. | | | | | |
| **History & Physical** | |
| **General** | Alert & oriented, anxious; No known sick contacts | | | | |
| **Cardiac** | HR regular, EKG shows sinus tachycardia | | | | |
| **Respiratory** | Breath sounds clear, no cough or dyspnea, chest x-ray clear | | | | |
| **Gastrointestinal** | Poor appetite X 9 days, abdomen soft, non-distended | | | | |
| **Skin** | Warm and dry; noticeable swelling of right arm and hand, mastectomy incision healed without drainage | | | | |
| **Vital Signs** | |
| Time | | | 1000 |
| T ◦F /◦C | | | 98 F (36.6 C) |
| P | | | 104 |
| RR | | | 22 |
| B/P | | | 136/74 |
| Pulse oximeter | | | 97% (RA) |
| Pain | | | 5/10 |
| R upper arm circumference | | | 39 cm |
| L upper arm circumference | | | 37 cm |
| **Laboratory Report** | |
| Lab | | | | Results | | Reference range | |
| Glucose (fasting) | | | | 68 mg/dL | | Normal < 99 mg/dL | |
| Hematocrit (HCT) | | | | 33% | | Males: 42-52%; Females: 35-47% | |
| Hemoglobin (HBG) | | | | 11 g/dL | | Males: 13-18 g/dL; Females: 12-16 g/dL | |
| White blood cells (WBC) | | | | 1.5 x 103 cells/mm3 | | 4.5 – 10.5 x 103 cells/mm3 | |
| Platelets | | | | 100,000 /mm3 | | 140,000 to 450,000/ mm3 | |
| Potassium (serum) | | | | 5.1 mEq/L | | 3.5 to 5 mEq/L | |
| Sodium (serum0 | | | | 148 mEq/L | | 135 to 145 mEq/L | |
| Albumin (serum) | | | | 2.8 g/dL | | 3.5-5.5 g/dL | |

* Which 4 assessment findings are **most** significant?
* Temperature 98 F (36.6 C)
* HR 104
* BP 136/74
* R arm numbness and tingling\*
* R arm pain rated 5/10\*
* WBC 1.5 x 103 cells/mm3\*
* Glucose 68
* Poor appetite
* R arm swelling\*

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| Score:0/1  Rationale: Assessing potential cellulitis in a pancytopenic client, for DVT in a post-op client, and lymphedema given the axillary node removal are important competing hypotheses. The R arm swelling, numbness and tingling as well as pain rating of 5/10 are associated with lymphedema, cellulitis, and DVT. With cellulitis, redness of the skin on the R arm and temperature elevation would also be likely. With DVT, R arm would be red or purple and warm; pain would likely be described as cramping and “sore”. Elevated heart rate and blood pressure may be associated with anxiety. Fatigue is a common, non-life-threatening condition in clients following chemo with poor appetite/nutrition. Temperature is considered within normal limits--would expect it to be elevated if there was infection. Glucose of 68 is minimally low. |

**Case Study Question 2 of 6**

The nurse cares for a 48-year-old female client who presents to the oncology clinic with complications following a mastectomy.

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| **Admission Notes** | |
| 1000: Presents with R arm weakness, numbness, tingling and swelling for past 48 hours. Significant history includes a right-sided radical mastectomy and removal of multiple axillary lymph nodes 45 days ago for triple-negative breast cancer. Client finished her first of six cycles of chemotherapy 10 days ago. L side single lumen implantable port present. Reports “my arm aches and feels tight. I am really worried about what’s wrong.” Spouse at bedside. Right upper extremity Doppler ultrasound pending. | | | | | |
| **History & Physical** | |
| **General** | Alert & oriented, anxious; No known sick contacts | | | | |
| **Cardiac** | HR regular, EKG shows sinus tachycardia | | | | |
| **Respiratory** | Breath sounds clear, no cough or dyspnea, chest x-ray clear | | | | |
| **Gastrointestinal** | Poor appetite X 9 days, abdomen soft, non-distended | | | | |
| **Skin** | Warm and dry; noticeable swelling of right arm and hand, mastectomy incision healed without drainage | | | | |
| **Vital Signs** | |
| Time | | 1000 | |
| T ◦F/ ◦C | | 98 F (36.6 C) | |
| P | | 104 | |
| RR | | 22 | |
| B/P | | 136/74 | |
| Pulse oximeter | | 97% (RA) | |
| Pain | | 5/10 | |
| R upper arm circumference | | 39 cm | |
| L upper arm circumference | | 37 cm | |
| **Laboratory Report** | |
| Lab | | | | Results | | Reference range | |
| Glucose (fasting) | | | | 68 mg/dL | | Normal < 99 mg/dL | |
| Hematocrit (HCT) | | | | 33% | | Males: 42-52%; Females: 35-47% | |
| Hemoglobin (HBG) | | | | 11 g/dL | | Males: 13-18 g/dL; Females: 12-16 g/dL | |
| White blood cells (WBC) | | | | 1.5 x 103 cells/mm3 | | 4.5 – 10.5 x 103 cells/mm3 | |
| Platelets | | | | 100,000 /mm3 | | 140,000 to 450,000/ mm3 | |
| Potassium (serum) | | | | 5.1 mEq/L | | 3.5 to 5 mEq/L | |
| Sodium (serum) | | | | 148 mEq/L | | 135 to 145 mEq/L | |
| Albumin (serum) | | | | 2.8 g/dL | | 3.5-5.5 g/dL | |

* For each finding click to indicate if the finding is consistent with cellulitis, lymphedema, or deep vein thrombosis (DVT). Each finding may support more than one condition.

|  |  |  |  |
| --- | --- | --- | --- |
| Findings | Cellulitis | Lymphedema | DVT |
| Right arm swelling | * \* | * \* | * \* |
| Right arm numbness/tingling |  | * \* | * \* |
| Temp 98 F (36.6 C) |  | * \* | * \* |
| HR 104 | * \* |  |  |
| Sodium 148 |  | * \* |  |
| Albumin 2.8 |  | * \* |  |

Note: Each column must have at least 1 response option selected.

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| Score:0/1  Rationale: R arm swelling would be associated with cellulitis, lymphedema and DVT. However, R arm numbness is only associated with post-op lymphedema. Temperature is considered within normal range and could be seen with lymphedema and DVT, while an elevated temperature would be expected with cellulitis. Tachycardia is not usually associated with lymphedema but could be associated with DVT if concerned about possible pulmonary embolus. Hypernatremia is not usually associated with cellulitis or DVT but could contribute to additional swelling seen in lymphedema. Albumin is not usually a contributing factor in DVT or cellulitis but could contribute to lymphedema. |

**Case Study Question 3 of 6**

The nurse cares for a 48-year-old female client who presents to the oncology clinic with complications following a mastectomy.

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| **Admission Notes** | | |
| 1000: Presents with R arm weakness, numbness, tingling and swelling for past 48 hours. Significant history includes a right-sided radical mastectomy and removal of multiple axillary lymph nodes 45 days ago for triple-negative breast cancer. Client finished her first of six cycles of chemotherapy 10 days ago. L side single lumen implantable port present. Reports “my arm aches and feels tight. I am really worried about what’s wrong.” Spouse at bedside. Right upper extremity Doppler ultrasound pending.  1100: Doppler ultrasound shows no evidence of clots. | | | | | | |
| **History & Physical** | | |
| **General** | Alert & oriented, anxious; No known sick contacts | | | | | |
| **Cardiac** | HR regular, EKG shows sinus tachycardia | | | | | |
| **Respiratory** | Breath sounds clear, no cough or dyspnea, chest x-ray clear | | | | | |
| **Gastrointestinal** | Poor appetite X 9 days, abdomen soft, non-distended | | | | | |
| **Skin** | Warm and dry; noticeable swelling of right arm and hand, mastectomy incision healed without drainage | | | | | |
| **Vital Signs** | | |
| Time | | 1000 | | |
| T ◦F/ ◦C | | 98 F (36.6C) | | |
| P | | 104 | | |
| RR | | 22 | | |
| B/P | | 136/74 | | |
| Pulse oximeter | | 97% (RA) | | |
| Pain | | 5/10 | | |
| R upper arm circumference | | 39 cm | | |
| L upper arm circumference | | 37 cm | | |
| **Laboratory Report** | | |
| Lab | | | | | Results | | Reference range | |
| Glucose (fasting) | | | | | 68 mg/dL | | Normal < 99 mg/dL | |
| Hematocrit (HCT) | | | | | 33% | | Males: 42-52%; Females: 35-47% | |
| Hemoglobin (HBG) | | | | | 11 g/dL | | Males: 13-18 g/dL; Females: 12-16 g/dL | |
| White blood cells (WBC) | | | | | 1.5 x 103 cells/mm3 | | 4.5 – 10.5 x 103 cells/mm3 | |
| Platelets | | | | | 100,000 /mm3 | | 140,000 to 450,000/ mm3 | |
| Potassium (serum) | | | | | 5.1 mEq/L | | 3.5 to 5 mEq/L | |
| Sodium (serum) | | | | | 148 mEq/L | | 135 to 145 mEq/L | |
| Albumin (serum) | | | | | 2.8 g/dL | | 3.5-5.5 g/dL | |

The nurse reviews and documents the results of the Doppler ultrasound.

* Drag 1 condition and 1 cause to fill in the blanks of the following sentence.

The greatest risk for this client is developing

due to

|  |  |  |
| --- | --- | --- |
| Conditions |  | Causes |
| Sepsis |  | Deep vein thrombosis and cancer diagnosis |
| Pulmonary embolism |  | Cellulitis with pancytopenia |
| Chronic lymphedema\* |  | Post-op R radical mastectomy & axillary node dissection\* |
| Malnutrition |  | Poor intake and effects of chemotherapy |
| Score: Rationale rule  Rationale: This client is displaying signs of lymphedema in the R arm including swelling, numbness, tingling, and pain rated as 5/10. Because these symptoms are occurring early in her post-op recovery, treatment is aimed at reducing the swelling and pain, and preventing complications such as chronic lymphedema. The risk for pulmonary embolism would be associated with a DVT. While the client has R arm swelling and pain, the diagnostic testing does not show a clot. The fatigue, loss of appetite, and anemia can be associated with the recent chemotherapy and resulting pancytopenia. The low albumin level suggests malnutrition. Nutritional support is indicated but the priority at this time is managing the lymphedema. | | | |

**Case Study Question 4 of 6**

The nurse cares for a 48-year-old female client who presents to the oncology clinic with complications following a mastectomy.

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| **Admission Notes** | |
| 1000: Presents with R arm weakness, numbness, tingling and swelling for past 48 hours. Significant history includes a right-sided radical mastectomy and removal of multiple axillary lymph nodes 45 days ago for triple-negative breast cancer. Client finished her first of six cycles of chemotherapy 10 days ago. L side single lumen implantable port present. Reports “my arm aches and feels tight. I am really worried about what’s wrong.” Spouse at bedside. Right upper extremity Doppler ultrasound pending.  1100: Doppler ultrasound diagnostic testing shows no evidence of clots. | | | | | |
| **History & Physical** | |
| **General** | Alert & oriented, anxious; No known sick contacts | | | | |
| **Cardiac** | HR regular, EKG shows sinus tachycardia | | | | |
| **Respiratory** | Breath sounds clear, no cough or dyspnea, chest x-ray clear | | | | |
| **Gastrointestinal** | Poor appetite X 9 days, abdomen soft, non-distended | | | | |
| **Skin** | Warm and dry; noticeable swelling of right arm and hand, mastectomy incision healed without drainage | | | | |
| **Vital Signs** | |
| Time | | | 1000 |
| T ◦F/ ◦C | | | 98 F (36.6 C) |
| P | | | 104 |
| RR | | | 22 |
| B/P | | | 136/74 |
| Pulse oximeter | | | 97% (RA) |
| Pain | | | 5/10 |
| R upper arm circumference | | | 39 cm |
| L upper arm circumference | | | 37 cm |
| **Laboratory Report** | |
| Lab | | | | Results | | Reference range | |
| Glucose (fasting) | | | | 68 mg/dL | | Normal < 99 mg/dL | |
| Hematocrit (HCT) | | | | 33% | | Males: 42-52%; Females: 35-47% | |
| Hemoglobin (HBG) | | | | 11 g/dL | | Males: 13-18 g/dL; Females: 12-16 g/dL | |
| White blood cells (WBC) | | | | 1.5 x 103 cells/mm3 | | 4.5 – 10.5 x 103 cells/mm3 | |
| Platelets | | | | 100,000 /mm3 | | 140,000 to 450,000/ mm3 | |
| Potassium (serum) | | | | 5.1 mEq/L | | 3.5 to 5 mEq/L | |
| Sodium (serum) | | | | 148 mEq/L | | 135 to 145 mEq/L | |
| Albumin (serum) | | | | 2.8 g/dL | | 3.5-5.5 g/dL | |

The nurse suspects that the client has lymphedema.

What orders does the nurse anticipate including in the plan of care? Select all that apply.

* Acetaminophen PO\*
* Anticoagulants SC
* Diet as tolerated\*
* Ibuprofen PO
* Sequential pneumatic compression\*
* Amoxicillin PO\*
* Physical therapy\*

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| Score: +/-  Rationale: Mild pain should be treated with acetaminophen. Ibuprofen should be avoided when platelets are low. Supporting the client’s nutritional status is important and the client can have a diet as tolerated. Oral antibiotics, such as amoxicillin, are indicated to treat possible infection that may have triggered the lymphedema. Sequential pneumatic compression helps mobilize lymphatic fluid from the hand and lower arm. Physical therapists can teach techniques and exercises to reduce lymphedema swelling. |

**Case Study Question 5 of 6**

The nurse cares for a 48-year-old female client who presents to the oncology clinic with complications following a mastectomy.

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| **Admission Notes** | | |
| 1000: Presents with R arm weakness, numbness, tingling and swelling for past 48 hours. Significant history includes a right-sided radical mastectomy and removal of multiple axillary lymph nodes 45 days ago for triple-negative breast cancer. Client finished her first of six cycles of chemotherapy 10 days ago. L side single lumen implantable port present. Reports “my arm aches and feels tight. I am really worried about what’s wrong.” Spouse at bedside. Right upper extremity Doppler ultrasound pending.  1100: Doppler ultrasound diagnostic testing shows no evidence of clots.  1130: Client states “I’m so glad that I don’t have a blood clot but my arm still hurts a lot and I still don’t know what is wrong.” Orders received for PO amoxicillin and acetaminophen, sequential pneumatic compression, and physical therapy. | | | | | | |
| **History & Physical** | | |
| **General** | Alert & oriented, anxious; No known sick contacts | | | | | |
| **Cardiac** | HR regular, EKG shows sinus tachycardia | | | | | |
| **Respiratory** | Breath sounds clear, no cough or dyspnea, chest x-ray clear | | | | | |
| **Gastrointestinal** | Poor appetite X 9 days, abdomen soft, non-distended | | | | | |
| **Skin** | Warm and dry; noticeable swelling of right arm and hand, mastectomy incision healed without drainage | | | | | |
| **Vital Signs** | | |
| Time | | 1000 | | |
| T ◦F/ ◦C | | 98 F (36.6 C) | | |
| P | | 104 | | |
| RR | | 22 | | |
| B/P | | 136/74 | | |
| Pulse oximeter | | 97% (RA) | | |
| Pain | | 5/10 | | |
| R upper arm circumference | | 39 cm | | |
| L upper arm circumference | | 37 cm | | |
| **Laboratory Report** | | |
| Lab | | | | | Results | | Reference range | |
| Glucose (fasting) | | | | | 68 mg/dL | | Normal < 99 mg/dL | |
| Hematocrit (HCT) | | | | | 33% | | Males: 42-52%; Females: 35-47% | |
| Hemoglobin (HBG) | | | | | 11 g/dL | | Males: 13-18 g/dL; Females: 12-16 g/dL | |
| White blood cells (WBC) | | | | | 1.5 x 103 cells/mm3 | | 4.5 – 10.5 x 103 cells/mm3 | |
| Platelets | | | | | 100,000 /mm3 | | 140,000 to 450,000/ mm3 | |
| Potassium (serum) | | | | | 5.1 mEq/L | | 3.5 to 5 mEq/L | |
| Sodium (serum) | | | | | 148 mEq/L | | 135 to 145 mEq/L | |
| Albumin (serum) | | | | | 2.8 g/dL | | 3.5-5.5 g/dL | |

Based on additional notes, the nurse begins to implement the treatment plan.

For each potential nursing action, click to specify whether the action is appropriate or not appropriate to include in the plan of care.

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| Potential Intervention | Appropriate | Not appropriate |
| Measure circumference of R wrist, forearm & upper arm | * \* |  |
| If needed, collect fingerstick blood sugar from R index finger |  | * \* |
| Take blood pressure in L arm | * \* |  |
| Teach client manual lymphatic drainage techniques |  | * \* |
| Elevate R arm on two pillows | * \* |  |
| Apply warm compresses to R arm |  | * \* |
| Encourage oral fluids | * \* |  |

Note: Each row must have 1 selection

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| Score: 0/1  Rationale: When implementing the treatment plan the nurse uses measures to reduce the risks of complications from lymphedema Including protecting the hand and arm from trauma. The nurse should not use R hand or arm for any blood pressure, venipuncture, fingersticks or IV cannulation when possible. Pillows are needed to keep arm elevated/reduce swelling. Measuring the circumference of the R wrist, forearm, and upper arm will help document the progress of the client’s lymphedema. It is important to avoid using warm compresses on the R arm as the swelling from lymphedema might dull pain perception and a burn could occur. The client does not have dietary restrictions so the nurse can encourage fluids and food as tolerated to improve nutrition. Specially trained therapists provide manual lymphatic drainage. However manual lymphatic drainage should be avoided if clients have a skin infection or a suspected blood clot. |

**Case Study Question 6 of 6**

The nurse cares for a 48-year-old female client who presents to the oncology clinic with complications following a mastectomy.

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| **Admission Notes** | | |
| 1000: Presents with R arm weakness, numbness, tingling and swelling for past 48 hours. Significant history includes a right-sided radical mastectomy and removal of multiple axillary lymph nodes 45 days ago for triple-negative breast cancer. Client finished her first of six cycles of chemotherapy 10 days ago. L side single lumen implantable port present. Reports “my arm aches and feels tight. I am really worried about what’s wrong.” Spouse at bedside. Right upper extremity Doppler ultrasound pending.  1100. Doppler ultrasound diagnostic testing shows no evidence of clots.  1130. Client states “I’m so glad that I don’t have a blood clot but my arm still hurts a lot and I still don’t know what is wrong.” Orders received for PO amoxicillin and acetaminophen, sequential pneumatic compression, and physical therapy. PO acetaminophen and amoxicillin given with 240 mL fluids. R arm elevated.  1400. Orders received for discharge home. Prescriptions include amoxicillin 500 mg PO twice daily X 10 days; acetaminophen 500 mg PO twice daily. Consult outpatient physical therapy and home health nursing for sequential pneumatic compression device. Client states “I am very concerned about how my arm got like this. I am afraid I won’t be able to manage at home”. | | | | | | | | | | |
| **History & Physical** | | |
| **General** |  | | | | Alert & oriented, anxious; No known sick contacts | | | | | | |
| **Cardiac** |  | | | | HR regular, EKG shows sinus tachycardia | | | | | | |
| **Respiratory** |  | | | | Breath sounds clear, no cough or dyspnea, chest x-ray clear | | | | | | |
| **Gastrointestinal** |  | | | | Poor appetite X 9 days, abdomen soft, non-distended | | | | | | |
| **Skin** |  | | | | Warm and dry; noticeable swelling of right arm and hand, mastectomy incision healed without drainage | | | | | | |
| **Vital Signs** | | |
| Time | | 1000 | | | | 1200 | | 1400 |
| T ◦F/ ◦C | | 98 F (36.6) | | | | 98 F (36.6 C) | | 98.2 F (36.7 C) |
| P | | 104 | | | | 98 | | 86 |
| RR | | 22 | | | | 22 | | 20 |
| B/P | | 136/74 | | | | 132/72 | | 128/70 |
| Pulse oximeter | | 97% (RA) | | | | 97% (RA) | | 96% (RA) |
| Pain | | 5/10 | | | | 5/10 | | 3/10 |
| R upper arm circumference | | 39 cm | | | | 39 cm | | 39 cm |
| L upper arm circumference | | 37 cm | | | | 37 cm | | 37 cm |
| **Laboratory Report** | | |
| Lab | | | | | Results | | | Reference range | | |
| Glucose (fasting) | | | | | 68 mg/dL | | | Normal < 99 mg/dL | | |
| Hematocrit (HCT) | | | | | 33% | | | Males: 42-52%; Females: 35-47% | | |
| Hemoglobin (HBG) | | | | | 11 g/dL | | | Males: 13-18 g/dL; Females: 12-16 g/dL | | |
| White blood cells (WBC) | | | | | 1.5 x 103 cells/mm3 | | | 4.5 – 10.5 x 103 cells/mm3 | | |
| Platelets | | | | | 100,000 /mm3 | | | 140,000 to 450,000/ mm3 | | |
| Potassium (serum) | | | | | 5.1 mEq/L | | | 3.5 to 5 mEq/L | | |
| Sodium (serum) | | | | | 148 mEq/L | | | 135 to 145 mEq/L | | |
| Albumin (serum) | | | | | 2.8 g/dL | | | 3.5-5.5 g/dL | | |

The nurse begins discharge teaching. For each client statement, click to specify whether the statement indicates an understanding, or no understanding of teaching provided.

|  |  |  |
| --- | --- | --- |
| Statement | Understanding | No understanding |
| “If my arm hurts, I’ll use an ice bag on it.” |  | * X |
| “It’s good to use a gentle moisturizer on my arms every day.” | * X |  |
| “I will wear gloves when I work in the garden.” | * X |  |
| “If I get a cut on my right hand, I will start taking antibiotics immediately.” |  | * X |
| “Losing weight might help the swelling.” | * X |  |
| “Some aching and heaviness in my right arm is expected.” |  | * X |
| “I can resume all upper body exercises as soon as I want.” |  | * X |
| “I will try to wear bracelets on my left arm only.” | * X |  |

Note: each row must have 1 selection

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| --- |
| Score: 0/1  Rationale: When implementing the treatment plan the nurse uses measures to reduce the risks of complications from lymphedema including protecting the hand and arm from trauma. Using a gentle moisturizer reduces dryness and the risk of cracking. It also helps restore the skin’s natural oils. It is important to avoid clothing and jewelry that might constrict lymphatic drainage on the R side. Whenever possible, the nurse should not use R hand or arm for any blood pressure, venipuncture, fingersticks or IV cannulation. Pillows are needed to keep arm elevated/reduce swelling. Measuring the circumference of the R wrist, forearm, and upper arm will help document the progress of the client’s lymphedema. Being overweight or obese are risk factors for lymphedema, so weight loss can help improve lymphedema. It is important to avoid using warm compresses on the R arm as the swelling from lymphedema might dull pain perception and a burn could occur. The client does not have dietary restrictions so the nurse can encourage fluids and food as tolerated to improve nutrition. Specially trained therapists provide manual lymphatic drainage- this is not a nursing intervention. However manual lymphatic drainage should be avoided if clients have a skin infection or a suspected blood clot. |

**Trend Standalone**

The nurse cares for a 48-year-old female client in the oncology clinic who is being evaluated for complications following a mastectomy.

|  |  |  |
| --- | --- | --- |
| **Nurses’ Notes** | | |
| 1000: Presents with R arm weakness, numbness, tingling and swelling for past 48 hours. Significant history includes a right-sided radical mastectomy and removal of multiple axillary lymph nodes 45 days ago for triple-negative breast cancer. Client finished her first of six cycles of chemotherapy 10 days ago. L side single lumen implantable port present. Reports “my arm aches and feels tight. I am really worried about what’s wrong.” Spouse at bedside. Right upper extremity Doppler ultrasound pending.  1100: Doppler ultrasound diagnostic testing shows no evidence of clots.  1130: Client states “I’m so glad that I don’t have a blood clot but my arm still hurts a lot and I still don’t know what is wrong.” Orders received for amoxicillin and acetaminophen, sequential pneumatic compression, and physical therapy. PO acetaminophen and amoxicillin given with 240 mL fluids. R arm elevated.  1400. Orders received for discharge home. Prescriptions reviewed and consult ordered for outpatient physical therapy and home health nursing for sequential pneumatic compression device. Client states “I am very concerned about how my arm got like this. I am afraid I won’t be able to manage at home”. | | | | | | |
| **History & Physical** | | |
| **General** | Alert & oriented, anxious; No known sick contacts | | | | | |
| **Cardiac** | HR regular, EKG shows sinus tachycardia | | | | | |
| **Respiratory** | Breath sounds clear, no cough or dyspnea, chest x-ray clear | | | | | |
| **Gastrointestinal** | Poor appetite X 9 days, abdomen soft, non-distended | | | | | |
| **Skin** | Warm and dry; noticeable swelling of right arm and hand, mastectomy incision healed without drainage | | | | | |
| Flow Sheet | | |
| Time | | 1000 | | 1200 | 1400 |
| T ◦F/ ◦C | | 98 F (36.6C) | | 98 F (36.6 C) | 98.2 F (36.7 C) |
| P | | 104 | | 98 | 86 |
| RR | | 22 | | 22 | 20 |
| B/P | | 136/74 | | 126/72 | 128/70 |
| Pulse oximeter | | 97% (RA) | | 97% (RA) | 96% RA |
| Pain | | 5/10 | | 5/10 | 3/10 |
| R upper arm circumference | | 39 cm | | 39 cm | 39 cm |
| L upper arm circumference | | 37 cm | | 37 cm | 37 cm |

* For each finding, click to specify if the finding indicates that the client’s status has improved, declined, or is unchanged during the course of their 10-hour admission.

|  |  |  |  |
| --- | --- | --- | --- |
| Finding | Improved | Declined | Unchanged |
| Temperature |  |  | * X |
| Pain | * X |  |  |
| HR | * X |  |  |
| RR | * X |  |  |
| RUE circumference |  |  | * X |
| Anxiety |  | * X |  |

|  |
| --- |
| Rationale: The vital signs have stabilized since admission, pain has improved slightly, and swelling in arm has not changed. Client’s anxiety has increased going from no obvious distress to being worried about what has caused the arm swelling, numbness, tingling, and pain and afraid that she won’t be able to manage at home. |