

## Module Report

Tutorial: Real Life RN Medical Surgical 4.0

Module: COPD



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Program Type: **Diploma**

### Standard Use Time and Score

|      | Date/Time             | Time Use | Score  |
|------|-----------------------|----------|--------|
| COPD | 10/23/2024 4:21:07 PM | 31 min   | Strong |
|      |                       |          |        |

### Reasoning Scenario Details COPD - Use on 10/23/2024 3:50:36 PM

#### Reasoning Scenario Performance Related to Outcomes:

\*See Score Explanation and Interpretation below for additional details.

| Body Function                                  | Strong | Satisfactory | Needs Improvement |
|------------------------------------------------|--------|--------------|-------------------|
| Cognition and Sensation                        | 100%   |              |                   |
| Immunity                                       | 100%   |              |                   |
| Ingestion, Digestion, Absorption & Elimination | 100%   |              |                   |
| Integument                                     | 100%   |              |                   |
| Oxygenation                                    | 100%   |              |                   |
| NCLEX RN                                       | Strong | Satisfactory | Needs Improvement |
| RN Management of Care                          | 100%   |              |                   |
| RN Psychosocial Integrity                      | 100%   |              |                   |
| RN Pharmacological and Parenteral Therapies    | 100%   |              |                   |
| RN Reduction of Risk Potential                 | 100%   |              |                   |
| RN Physiological Adaptation                    | 100%   |              |                   |
| QSEN                                           | Strong | Satisfactory | Needs Improvement |
| Safety                                         | 100%   |              |                   |
| Patient-Centered Care                          | 100%   |              |                   |

|                            |      |  |  |
|----------------------------|------|--|--|
| Evidence Based Practice    | 100% |  |  |
| Teamwork and Collaboration | 100% |  |  |

### Decision Log:

| Optimal Decision         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Scenario</b>          | Nurse Allyson is preparing her assignment/worksheet, in anticipation of caring for Mr. Gomez. He is coming from the emergency department to the medicalsurgical unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Question</b>          | Nurse Allyson is planning care for Mr. Gomez. He is coming from the emergency department. Which of the following data should the nurse include in the plan of care? (Select all that apply.) Review the data in the EMR and the information the nurse has captured below for the assignment/worksheet.<br>T - 99.2; P - 100; R - 36; O2 Sat 91% on 5L of O2; BP - 150/94; I - NPO; O - 250mL clear yellow urine<br>Dx - Pneumonia, exacerbation of COPD<br>Labs/Diagnostics - ABGs, CBC, chest x-ray, chem/metabolic profile, UA and C&S of sputum<br>pending<br>Allergies - Ampicillin<br>Saline Lock - Left wrist, flushes fine<br>Pain - Denies<br>Systems - 1. Lung sounds diminished in the bases and upper lobes<br>sounds coarse with inspiratory crackles and occasional rhonchi. Productive cough, greenish-yellow tenacious sputum. 2. Alert, oriented<br>Medications - Antibiotic has not been started. Has had 2 nebulizer treatments with albuterol. (Check the MAR.) |
| <b>Selected Ordering</b> | Code status<br>Arterial blood gas (ABG) values<br>Last dose of bronchodilator medication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Rationale</b>         | Respiratory insufficiency and failure are life-threatening complications of COPD. Use the priority framework of ABCs; anticipating the client can readily go into respiratory arrest and determining a course of action are priorities. Arterial blood gases establish a client's baseline oxygenation and gas exchange, and are a basis for evaluating a client's respiratory status. Nutrition concerns are relevant to the rehabilitation process of a client who has COPD, not the client in an acute stage of respiratory failure. Activity tolerance would not be a priority concern at this time. Exacerbation of COPD warrants optimization of bronchodilator medications as first-line therapy and identifying the best combination of medications to be given on a regular schedule.                                                                                                                                                                                     |
| Optimal Decision         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Scenario</b>          | Nurse Allyson is assessing Mr. Gomez's respiratory and oxygenation status after his recent admission to the medical-surgical unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Question</b>          | Nurse Allyson assessed Mr. Gomez's respiratory status. Which of the following actions should Nurse Allyson take?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Selected Option</b>   | Decrease the rate of oxygen flow.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Optimal Decision         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Scenario</b>          | Nurse Allyson is preparing to administer an intermittent intravenous (IV) bolus antibiotic medication to Mr. Gomez.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Question</b>          | Review the five videos below related to the administration of the IV piggyback ceftriaxone (Rocephin) to Mr. Gomez and reorder the steps into the correct sequence by dragging them into the desired order.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Selected Ordering</b> | Video B: Complete the six rights using the MAR, noting client allergies. Video D: Gather supplies and equipment needed to administer the medication. Video A: Complete client identification using two forms of data, noting client's allergy band. Video C: Inform the client about the procedure and what to expect. Video E: Administer the medication.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Rationale</b>         | The correct order for administering the intermittent IV bolus medication is: complete the six rights using the MAR, noting client allergies; gather supplies and equipment needed to administer the medication; complete client identification using two forms of data, noting client's allergy band; inform the client about the procedure and what to expect; administer the medication.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Rationale</b>         | Decreasing the rate of oxygen flow is the appropriate action because the lowest possible rate maintains oxygen status without depressing the respiratory drive. The client who has COPD with hypoxemia requires lower levels of oxygen delivery, usually in the range of 1 to 2 L/min. Some clients are chronic CO <sub>2</sub> retainers (hypercapnia) and can be more oxygen sensitive, so too much oxygen increases CO <sub>2</sub> retention and can result in lowered respiratory rates.                                                                                                                                                                                                                                                                                                                                         |
| <b>Optimal Decision</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Scenario</b>          | Nurse Allyson completes a calculation in order to correctly set the IV controller pump to infuse an intermittent intravenous (IV) bolus medication.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Question</b>          | The nurse is preparing to administer ceftriaxone (Rocephin) 1 g IV. Available is ceftriaxone 1 g in 100 mL sterile water. When administering the medication over 30 min, the nurse should set the IV pump to deliver how many mL/hr?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Selected Option</b>   | 200 mL/hr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Rationale</b>         | <p>STEP 1: What is the unit of measurement to calculate? mL/hr</p> <p>STEP 2: What is the volume needed? 100 mL</p> <p>STEP 3: What is the total infusion time? 30 min</p> <p>STEP 4: Should the nurse convert the units of measurement? Yes (min does not equal hr)</p> $60 \text{ min}/30 \text{ min} = 1 \text{ hr}/X \text{ hr}$ $X = 0.5 \text{ hr}$ <p>STEP 5: Set up an equation and solve for X.</p> $\text{Volume (mL)}/\text{Time (hr)} = X \text{ mL/hr}$ $100 \text{ mL}/0.5 \text{ hr} = X \text{ mL/hr}$ $X = 200$ <p>STEP 6: Round if necessary.</p> <p>STEP 7: Reassess to determine if the amount to administer makes sense. If the amount prescribed is 100 mL to infuse over 30 min, it makes sense to administer 200 mL/hr. The nurse should set the IV pump to deliver ceftriaxone at 200 mL/hr every 12 hr.</p> |

| Optimal Decision       |                                                                                                                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Scenario</b>        | Nurse Allyson responds to a request from Mr. Gomez's daughter related to a change in his condition.                                                                                                                                             |
| <b>Question</b>        | Mr. Gomez's daughter expresses concern to the nurse about her father's skin irritation and itching. Which of the following is a correct response by Nurse Allyson?                                                                              |
| <b>Selected Option</b> | "I'll be right there."                                                                                                                                                                                                                          |
| <b>Rationale</b>       | The nurse knows the client has an allergy to ampicillin (Unasyn) and is now receiving ceftriaxone (Rocephin). Itching and pruritus indicate the presence of an allergic response. The client's report of pruritus should be evaluated promptly. |
| Optimal Decision       |                                                                                                                                                                                                                                                 |
| <b>Scenario</b>        | Nurse Allyson reviews the appropriate action to take when a Mr. Gomez demonstrates an allergic response to a medication.                                                                                                                        |
| <b>Question</b>        | When caring for Mr. Gomez during his allergic reaction, Nurse Allyson assesses his airway. What is the next appropriate nursing intervention?                                                                                                   |
| <b>Selected Option</b> | Assess Mr. Gomez's breathing pattern.                                                                                                                                                                                                           |
| <b>Rationale</b>       | The nurse's next action is to monitor the client's breathing pattern for signs of increasing edema and respiratory distress.                                                                                                                    |
| Optimal Decision       |                                                                                                                                                                                                                                                 |
| <b>Scenario</b>        | Nurse Jessica uses therapeutic communication when discussing psychosocial issues with Mr. Gomez and his daughter.                                                                                                                               |
| <b>Question</b>        | Which of the following nursing intervention is appropriate to meet the needs of Mr. Gomez and his daughter at this time?                                                                                                                        |
| <b>Selected Option</b> | Encourage Mr. Gomez and his daughter to further express their emotions.                                                                                                                                                                         |
| <b>Rationale</b>       | This is the correct response. Using active listening and an expression of the client's feelings helps to validate the feelings and their content. This approach conveys an attitude of caring and fosters ongoing communication.                |
| Optimal Decision       |                                                                                                                                                                                                                                                 |
| <b>Scenario</b>        | Nurse Jessica recognizes the anatomical and physical changes that are occurring when Mr. Gomez develops a pleural effusion.                                                                                                                     |
| <b>Question</b>        | Nurse Jessica is caring for Mr. Gomez and is aware that he has a pleural effusion. Which of the following images depicts a pleural effusion?                                                                                                    |
| <b>Selected Option</b> |                                                                                                                                                                                                                                                 |
| <b>Rationale</b>       | In a pleural effusion, fluid occupies the space that normally is filled with air in the pleural cavity.                                                                                                                                         |
| Optimal Decision       |                                                                                                                                                                                                                                                 |

|                          |                                                                                                                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Scenario</b>          | Nurse Jessica assesses Mr. Gomez, who has a chest tube and chest drainage system in place.                                                                                                |
| <b>Question</b>          | Nurse Jessica received report from the AP about Mr. Gomez's difficulty breathing and increased anxiety. Which of the following activities should be included in the nurse's plan of care? |
| <b>Selected Option</b>   | Assess all tube connections between the chest and the drainage system.                                                                                                                    |
| <b>Rationale</b>         | Securing the chest tube to the drainage system reduces the risk of air leaks in an airtight system.                                                                                       |
| <b>Optimal Decision</b>  |                                                                                                                                                                                           |
| <b>Scenario</b>          | Nurse Allyson understands the basis for Mr. Gomez's protein nutrition status.                                                                                                             |
| <b>Question</b>          | Nurse Allyson recognizes that Mr. Gomez has an acute protein deficiency. Which of the following laboratory test results is useful in determining a client's protein nutrition status?     |
| <b>Selected Option</b>   | Prealbumin                                                                                                                                                                                |
| <b>Rationale</b>         | Prealbumin is a sensitive indicator of protein nutrition status, more so than albumin.                                                                                                    |
| <b>Optimal Decision</b>  |                                                                                                                                                                                           |
| <b>Scenario</b>          | Review risk factors that make Mr. Gomez prone to skin breakdown.                                                                                                                          |
| <b>Question</b>          | Review the list of risk factors to skin breakdown. Which of the following are risk factors that Mr. Gomez exhibit? (Select all that apply.)                                               |
| <b>Selected Ordering</b> | Alcohol intake History of corticosteroid use Limited mobility Chronic illness (COPD)                                                                                                      |
| <b>Rationale</b>         | A risk factor that makes the client prone to skin breakdown includes having a chronic illness such as COPD, which alters oxygenation.                                                     |
| <b>Optimal Decision</b>  |                                                                                                                                                                                           |
| <b>Scenario</b>          | Nurse Allyson is planning discharge teaching for a client with pneumonia and an acute exacerbation of COPD.                                                                               |
| <b>Question</b>          | Nurse Allyson is planning discharge teaching for Mr. Gomez. Which of the following should be included in the discharge instructions?                                                      |
| <b>Selected Option</b>   | Begin a pulmonary rehabilitation program.                                                                                                                                                 |
| <b>Rationale</b>         | Pulmonary rehabilitation can improve the endurance and pulmonary function of a client who has COPD. It increases the client's activity, which reduces dyspnea.                            |

## Individual Report – Score Explanation and Interpretation

### Reasoning Scenario Information:

Reasoning Scenario Information provides the date, time and duration of use, along with the score earned for each attempt. A Reasoning Scenario Performance score of Strong, Satisfactory, or Needs Improvement is provided for each attempt. This information is also provided for the Optimal Decision Mode if it has been enabled.

### Reasoning Scenario Performance Scores:

|                          |                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Strong</b>            | Exhibits optimal reasoning that results in positive outcomes in the care of clients and resolution of problems.          |
| <b>Satisfactory</b>      | Exhibits reasoning that results in mildly helpful or neutral outcomes in the care of clients and resolution of problems. |
| <b>Needs Improvement</b> | Exhibits reasoning that results in harmful or detrimental outcomes in the care of clients and resolution of problems.    |

### Reasoning Scenario Performance Related to Outcomes:

A clinical reasoning performance score related to each outcome is provided. Outcomes associated with student responses are listed in the report. The number across from each outcome indicates the percentage of responses associated with the level of performance of that outcome.

### NCLEX® Client Need Categories:

|                                                 |                                                                                                                                                                                             |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Management of Care</b>                       | Providing integrated, cost-effective care to clients by coordinating, supervising, and/or collaborating with members of the multi-disciplinary health care team.                            |
| <b>Safety and Infection Control</b>             | Incorporating preventative safety measures in the provision of client care that provides for the health and well-being of clients, significant others, and members of the health care team. |
| <b>Health Promotion and Maintenance</b>         | Providing and directing nursing care that encourages prevention and early detection of illness, as well as the promotion of health.                                                         |
| <b>Psychosocial Integrity</b>                   | Promoting mental, emotional, and social well-being of clients and significant others through the provision of nursing care.                                                                 |
| <b>Basic Care and Comfort</b>                   | Promoting comfort while helping clients perform activities of daily living.                                                                                                                 |
| <b>Pharmacological and Parenteral Therapies</b> | Providing and directing administration of medication, including parenteral therapy.                                                                                                         |
| <b>Reduction of Risk</b>                        | Providing nursing care that decreases the risk of clients developing                                                                                                                        |

|                                 |                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------|
| <b>Potential</b>                | healthrelated complications.                                                    |
| <b>Physiological Adaptation</b> | Providing and directing nursing care for clients experiencing physical illness. |

### Quality and Safety Education for Nurses (QSEN)

|                                   |                                                                                                                                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Safety</b>                     | The minimization of risk factors that could cause injury or harm while promoting quality care and maintaining a secure environment for clients, self, and others.                                   |
| <b>Patient-Centered Care</b>      | The provision of caring and compassionate, culturally sensitive care that is based on a client's physiological, psychological, sociological, spiritual, and cultural needs, preferences, and values |
| <b>Evidence Based Practice</b>    | The use of current knowledge from research and other credible sources, upon which clinical judgment and client care are based.                                                                      |
| <b>Informatics</b>                | The use of information technology as a communication and information gathering tool that supports clinical decision making and scientifically based nursing practice.                               |
| <b>Quality Improvement</b>        | Care related and organizational processes that involve the development and implementation of a plan to improve health care services and better meet the needs of clients.                           |
| <b>Teamwork and Collaboration</b> | The delivery of client care in partnership with multidisciplinary members of the health care team, to achieve continuity of care and positive client outcomes.                                      |

### Body Function

|                                                         |                                                                                                                                                                                                                                           |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cardiac Output and Tissue Perfusion</b>              | The anatomical structures (heart, blood vessels, and blood) and body functions that support adequate cardiac output and perfusion of body tissues.                                                                                        |
| <b>Cognition and Sensation</b>                          | The anatomical structures (brain, central and peripheral nervous systems, eyes and ears) and body functions that support perception, interpretation, and response to internal and external stimuli.                                       |
| <b>Excretion</b>                                        | The anatomical structures (kidney, ureters, and bladder) and body functions that support filtration and excretion of liquid wastes, regulate fluid and electrolyte and acid-base balance.                                                 |
| <b>Immunity</b>                                         | The anatomic structures (spleen, thymus, bone marrow, and lymphatic system) and body functions related to inflammation, immunity, and cell growth.                                                                                        |
| <b>Ingestion, Digestion, Absorption and Elimination</b> | The anatomical structures (mouth, esophagus, stomach, gall bladder, liver, small and large bowel, and rectum) and body functions that support ingestion, digestion, and absorption of food and elimination of solid wastes from the body. |
| <b>Integument</b>                                       | The anatomical structures (skin, hair, and nails) and body functions related to protecting the inner organs from the external environment and injury.                                                                                     |

|                                  |                                                                                                                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mobility</b>                  | The anatomical structures (bones, joints, and muscles) and body functions that support the body and provide its movement.                                                             |
| <b>Oxygenation</b>               | The anatomical structures (nose, pharynx, larynx, trachea, and lungs) and body functions that support adequate oxygenation of tissues and removal of carbon dioxide.                  |
| <b>Regulation and Metabolism</b> | The anatomical structures (pituitary, thyroid, parathyroid, pancreas, and adrenal glands) and body functions that regulate the body's internal environment.                           |
| <b>Reproduction</b>              | The anatomical structures (breasts, ovaries, fallopian tubes, uterus, vagina, vulva, testicles, prostate, scrotum, and penis) and body functions that support reproductive functions. |

### Decision Log

Information related to each question answered in a scenario attempt is listed in the report. A brief description of the scenario, question, selected option and rationale for that option are provided for each question answered. The words "Optimal Decision" appear next to the question when the most optimal option was selected.

The rationale for each selected option may be used to guide remediation. A variety of learning resources may be used in the review process, including related ATI Review Modules.