

Preconference Form

Student Name: Olivia Creamer

Medical Diagnosis/Disease: Respiratory System/ COPD

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

NCLEX IV (7): Reduction of Risk

Anatomy and Physiology Normal

Structures

Upper respiratory Tract: nose, mouth, pharynx (nasopharynx, larynx), epiglottis, & larynx

Nose: divided into 2 nares by the nasal septum. The nose protects the lower airway by warming & humidifying air and filtering small particles before it enters the lungs

Epiglottis: small flap behind the tongue that closes over the larynx during swallowing, preventing solids & liquids from entering the lungs.

Lower Respiratory Tract: trachea, bronchi, bronchioles, alveolar ducts, & alveoli

Trachea: divides into the R & L mainstem bronchi at the carina.

- The carina is highly sensitive and if stimulated, causes vigorous coughing.

Bronchi: the R mainstem bronchus is shorter, wider, and straighter than the L- explaining why aspiration is more likely to occur in the R lung than the L

Bronchioles: encircled by smooth muscles that constrict & dilate in response to stimuli

Alveoli: primary site of gas exchange. They are interconnected by pores of Kohn, which allow movement of air from alveolus to alveolus.

- Deep breathing promotes movement through the pores & helps move mucus out of the respiratory bronchioles
- Alveoli are unstable, so alveolar cells secrete **surfactant:** a lipoprotein that lowers the surface tension in the alveoli. Surfactant reduces the amt of pressure needed to inflate the alveoli & make them less likely to collapse.

Ventilation: inspiration, expiration

- Air moves in & out of the lung's b/c of intrathoracic pressure changes in relation to the pressure at the airway opening
- **Expiration:** passive; elastic recoil is the tendency for the lungs to return to their original size after being stretched. Elasticity of lung tissue is due to the elastin fibers found in the alveolar walls & surrounding the bronchioles and capillaries.

Pulmonary Circulation: provides the lungs w/ blood that takes part in gas exchange

Bronchial Circulation: starts w/ bronchial arteries, which arise from the thoracic aorta. Does not take part in gas exchange, but provides O2 to the bronchi & other lung tissue

Cough Reflex: protective reflex that clear the airway by a high-pressure, high-velocity flow of air. Is a "backup" for mucociliary clearance

Reflex Bronchoconstriction: when we inhale large amts of irritating substances, the bronchi constrict to prevent the entry of irritants

Normal Tidal Volume: approx. 500 mL

Pathophysiology of Disease

Chronic inflammation of the airways, lung parenchyma (bronchioles & alveoli), and pulmonary blood vessels.

- Inflammatory process starts w/ inhalation of noxious particles/ gases. With repeated exposure, chronic inflammation causes tissue destruction & disrupts the normal defense mechanisms
- **Predominant Inflammatory Cells:** neutrophils, macrophages, & lymphocytes

Key feature: Airflow limitation caused by loss of elastic recoil & airflow obstruction (mucus hypersecretion, mucosal edema, & bronchospasm)
COPD & Expiration: As peripheral airways become obstructed, air is progressively trapped during expiration. **As air is trapped in the lungs, the chest hyper-expands and becomes barrel shaped.**

- As a result, functional residual capacity (FRC) increases → **making passive exhalation difficult ("overinflated state")**

Ventilation/ Perfusion (V/Q): As air trapping increases, walls of alveoli are destroyed. Bullae & blebs (air spaces) can form on the lungs and cause a significant V/Q mismatch; leading to **CO2 retention.**

COPD & the CV System: The small pulmonary arteries vasoconstrict due to hypoxia. As COPD advances, the structure of the pulmonary arteries changes (thicken) → increasing the pressure in the pulmonary arteries (aka pulmonary HTN)

- Can lead to HF

Classifications of COPD:

Mild: FEV1 >80% predicted
Moderate: FEV1 50-80% predicted
Severe: FEV1 30-50% predicted
Very severe: FEV1 <30% predicted

- FEV1/FVC ratio of <70 establishes the diagnosis of COPD
- FEV1 determines stage of COPD (severity of obstruction)

COPD Prognosis:

- Severity: Those w/ stage 3 or 4 COPD have a life expectancy that is 6-9 years shorter than average (early-stage COPD can live a normal lifespan)
- Treatment adherence: Can improve prognosis by 20-25%

Anticipated Diagnostics Labs

ABG's (Arterial Blood Gases): identify the severity of the exacerbation

Serum a1- antitrypsin levels: assesses liver & lung function

C-reactive protein (CRP): identifies degree of pulmonary inflammation

- Erythrocyte sedimentation rate (ESR)

CBC: assesses overall health of the patient

pH
BUN

Additional Diagnostics

Spirometry: confirms the presence of airflow obstruction & determines the severity of COPD
CXR: may show a flat diaphragm due to hyperinflated lungs

Walk Test w/ O2 Saturation

ECG: may be normal or show signs of R HF

Pulmonary Function Tests (PFTs)
CT scan

Global Initiative for Chronic Obstructive Lung Disease (GOLD)

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors
Cigarette Smoking: Causes hyperplasia of the cells, reducing airway diameter
Infection: Severe, recurring respiratory infections
Asthma: Many patients with COPD also have asthma (asthma-COPD overlap syndrome)
Air Pollution: high levels of urban air pollution
Occupational chemicals & dusts: various dusts, irritants, vapors, or fumes
Aging: Research is unclear
Weight: Underweight clients are at a higher risk
Genetics: "Z" allele of the AAT protein; family Hx
Alpha-1 Antitrypsin Deficiency: Protein made by the liver that is found in the lungs

Signs and Symptoms
Chronic, intermittent cough or sputum production, dyspnea, & a Hx of exposure to risk factors for the disease
 - Typically dyspnea with exertion
 Chest heaviness, not being able to "take a deep breath", gasping, increased effort to breathe, and air hunger
 - **Can impair ability to perform ADLs**
 In late stages: dyspnea at rest, "chest breathing" (use of accessory muscles), wheezing & chest tightness, fatigue, wt. loss, anorexia, decreased breath sounds
 Tripod positioning & pursed lip breathing
 Hypoxemia with cyanosis: bluish-red skin color
 - Increased production of WBC's as body tries to compensate

Possible Therapeutic Procedures
Non-surgical
Oxygen Therapy: linked to improved survival
Drug Therapy: Bronchodilators, Short-Acting B2 Adrenergic Agonists (SABA), LABAs, Anticholinergics, Mucolytics
Breathing Exercises
Incentive Spirometry
Airway Clearance Techniques
Pulmonary Rehabilitation
Nutrition: fresh fruits, proteins, vegetables, & whole grains
Surgical
Lung Volume Reduction Surgery (LVRS): Goal is to reduce the size of the lung so the remaining healthy tissue can perform better
Bronchoscopic Lung Volume Reduction (BLVR): placing multiple 1-way valves by bronchoscopy
Bullectomy: 1 or more very large bullae are removed

Prevention of Complications
 (What are some potential complications associated with this disease process)
Pulmonary HTN & Cor Pulmonale: pressure on the R side of the heart must increase to push blood into the lungs
 - **Cor Pulmonale:** Results from pulmonary HTN.
Acute Exacerbations: acute event characterized by a worsening of the patient's respiratory Sx's.
Acute Respiratory Failure (ARF): May require mechanical ventilation and ICU admission
Respiratory Infections
Mental Health Challenges
Polycythemia
Pneumothorax
Avoid Lung Irritants: Smoking cessation, avoiding triggers
 Stay Active & Moving
 Stay UTD on Vaccinations
 Eat a healthy, balanced diet
 Take maintenance medications as Rx'd
 F/U with medical personal PRN/ report to ER for sudden changes in Sx's.

NCLEX IV (6): Pharmacological and Parenteral Therapies

Anticipated Medication Management
 Bronchodilators: Salbutamol
 SABA: albuterol/ LABA: salmeterol & formoterol
 Anticholinergics: ipratropium
 ICSs: Fluticasone
 Methylxanthines: theophylline
 Roflumilast (daliresp)
 Mucolytic: acetylcysteine

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures
Smoking cessation, Pulmonary Rehabilitation, Exercise, Breathing Exercises (Deep breathing, coughing, splinting), Patient Education Programs, Hydration (Thin Secretions), Health/ Balanced Diet, Vaccinations
 - Oxygen Therapy (Consider long-term)

NCLEX III (4): Psychosocial/Holistic Care Needs

What stressors might a patient with this diagnosis be experiencing?
 Fear/ Anxiety/ Depression r/t not being able to breathe
 Difficulty sleeping
 Inability to perform ADLs/ enjoyable activities
 - Isolation
 Self-blaming/ Guit (partaking in ↑ risk behavior)
 Relationship changes/ Sexual dysfunction
 Stress r/t socioeconomic status: ability to afford healthcare or missed time at work

Client/Family Education

List 3 potential teaching topics/areas
Importance of avoiding irritants: Smoking cessation/ second-hand smoke exposure. Workplace pollution exposure.
When to report to HCP or ER: Severe difficulty breathing, COP, circumoral cyanosis, confusion/ disorientation/ difficulty speaking, heart palpitations, and high fever.
Importance of maintaining a healthy lifestyle: Can significantly improve oxygenation and endurance. Frequent exercise & healthy eating can reduce inflammation and fight off infections.

NCLEX I (1): Safe and Effective Care Environment

Multidisciplinary Team Involvement
 (Which other disciplines do you expect to share in the care of this patient)
 Pulmonologist, Pulmonary Rehabilitation Specialist, Respiratory Therapy, Nutritionist/ Dietitian, PT/OT, Pharmacists, Physiotherapist, Social worker/ Case Manager, Smoking Cessation Counselor, and Mental Health Specialists (Possibly group counseling)

Nursing Problem Worksheet

Name: Olivia Creamer

Anticipated Patient Problem and Goals	Relevant Assessments (Pework) What assessments pertain to your patient's problem? Include frequencies	Multidisciplinary Team Intervention (Pework) What will you do if your assessment is abnormal?
Problem: Impaired Gas Exchange Reasoning: Evidenced by SpO ₂ of <93% on RA, dyspnea, use of accessory muscles during ventilation, and HGB <13 Goal: Adventitious lung sounds will be absent by the end of my care. Goal: Oxygen saturation of >93% on RA by the end of my care	Auscultate breath sounds q2-4hrs or PRN.	Position the client for comfort (semi-fowler position) to promote diaphragmatic decent and maximize inhalation.
	Monitor pulse oximetry readings q2h or PRN. Monitor during and after time of activity or ambulation.	Facilitate coordination across the healthcare team to provide rest periods between activities and PRN. Allow 90 minutes of undisturbed rest throughout the day. Admin O ₂ therapy per protocol
	Monitor blood work (CBC, CMP, and CRP) and sputum cultures q6-8h.	Admin ceftriaxone 1g/ 100 mL as ordered after receiving blood work results & CX's have been obtained.
	Assess the temperature, color, and moistness of skin, lips, and mucus membranes q4h.	Encourage the client to perform 10, slow deep breaths every hour throughout the shift. Consider order for IS.
	Monitor VS q4h. Remain alert for fever, tachycardia, tachypnea, or hypotension	If fevered, admin acetaminophen PO as ordered (was not provided with dosage)

Anticipated Patient Problem and Goals	Relevant Assessments (Pework) What assessments pertain to your patient's problem? Include frequencies	Multidisciplinary Team Intervention (Pework) What will you do if your assessment is abnormal?
Problem: Risk for falls Reasoning: Evidenced by SpO ₂ <93%, fatigue, administration of albuterol via nebulizer, and continuous IV infusion Goal: Will not fall during my time of care Goal: Will demonstrate use of the call bell for ambulatory assistance or sudden SOB, CP, or dizziness by the end of my care.	Assess gait and monitor weakness, difficulty with balance, or pain q2h or prior to ambulation.	Provide assistance during ambulation or implement an assistive device. Consider consultations/ referrals to OT/PT
	Determine if IVF are currently running and at what rate q2h or PRN for ambulatory regimens.	Provide assistance in securing lines during transportation and ambulating with the IV pole. Educate client on the importance and how to do it independently
	Monitor VS q4h. Remain alert for orthostatic hypotension and increased P with position change.	Encourage dangling prior to standing up or proper establishment of correct foot placement. Ensure non-skid footwear are applied.
	Identify personal belongings and necessary items. Assess appearance of room and medical devices. Perform at least once a shift.	Place personal belongings and frequently used items within easy reach. Maintain an uncluttered environment with unobstructed walkways and adequate lighting.
	Review significant and potential safety needs. Evaluate prior call bell knowledge/ hospital orientation at the beginning of a shift.	Orient to call bell system. Educate client on the importance of utilizing the call bell when in need of assistance. Have client demonstrate use of the call bell system.

ACTIVE LEARNING TEMPLATE: **Medication**

STUDENT NAME Olivia Creamer

MEDICATION Ceftriaxone (Rocephin)

REVIEW MODULE CHAPTER _____

CATEGORY CLASS 3rd-Generation Cephalosporin, Antibiotic

PURPOSE OF MEDICATION

Expected Pharmacological Action
Binds to bacterial cell membranes and inhibits cell wall synthesis

Therapeutic Use
Bactericidal
↳ gram-negative aerobic organisms (some gram +)
Otitis media
lower respiratory infections, UTI, PID, Bite wounds

Complications → or vaginal
Discomfort & IM injections, oral candidiasis, mild abd discomfort, nausea, fever, joint discomfort, pruritic rash, GI tract imbalance

Medication Administration
IV, IM
Adults + Elderly: 1-2g q12-24h
Children: 50-75 mg/kg/dose

Contraindications/Precautions → colitis
Hepatic impairment, Hx of GI disease, Hx of penicillin allergy
Do not give & calcium containing solutions, to infants, or to people & Hx of a reaction to cephalosporins.

Nursing Interventions
• Assess mucous membranes for white patches (candida)
• Monitor bowel activity
• Monitor I+O's: renal function tests and CBCs

Interactions
Drugs: Probenecid: may ↑ concentration
Calcium salts: ↑ ADR'S
• May ↑ serum BUN, alkaline phosphatase, LDH, bilirubin, creatinine, ALT, + AST.

Client Education
• Discomfort may occur & IM injection
• Doses should be evenly spaced
• Take full course as Rx'd
• Ensure pt understands expected S/E.

Evaluation of Medication Effectiveness
Symptom improvement ↓ reduction
↓ WBC counts through Tx
⊖ C+S's

Compatibility

Cardizem
Heparin
Lidocaine
Flagyl

Morphine
Propofol
NS (0.9% NaCl)
D5W

Incompatible:

Amphotericin B
Pepcid
Diflucan

Lactated Ringers

~~Propofol~~

error EC 10/26/24 1700

Vancomycin

Amount

1g

Rate of Administration

1g / 100 mL NS over 30 min.

Set pump: 200 mL/hr

$$\downarrow \frac{100 \text{ mL}}{0.5 \text{ hr}} = 200 \text{ mL/hr}$$

$$\frac{100 \text{ mL}}{30 \text{ min}} \times \frac{10 \text{ gtts}}{1 \text{ mL}} = 33.3 \text{ gtts/min}$$

Diluent

~~2.4 mL~~
error EC 10/26/24 1700

Add 2.4 mL NS for injection to each 250mg to provide concentration of 100mg/mL. May further dilute c 50-100 mL NS or D5W.

Site, supplies, storage, stability

- Solution appears light yellow to amber
- IVPB stable for 2 days @ room T°, 10 days refrigerated
- Discard if precipitate forms

STUDENT NAME Olivia CreamerMEDICATION Acetaminophen (Tylenol, Mapap, FEVERALL)

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Central analgesic, Nonnarcotic analgesic, Antipyretic**PURPOSE OF MEDICATION****Expected Pharmacological Action**

Activates descending serotonergic inhibitory pathways in CNS.
Antipyretic: Inhibits hypothalamic heart-regulating center

Therapeutic Use

Results in antipyresis. Produces analgesic effect

Complications

CNS: agitation, anxiety, fatigue, fever, HA, insomnia
CV: hypotension, HTN, peripheral edema
EENT: stridor
ENDO: hypoglycemic coma
GI: abd pain, constipation, diarrhea, N/V, jaundice
MS: muscle spasms
Skin: pruritic rash, blisters, reddening of skin

Medication Administration

Oral suspension (syrup),
Suppositories, IV, PO, or PR

Regular Strength (Adults) PO:
640 to 650 mg q4-6h PRN
Maximum PO: 3,250 mg (5 doses) in 24 hrs

Contraindications/Precautions

Contraindications: severe hepatic impairment, severe acute liver disease
Cautions: Severe renal impairment, alcohol dependency, chronic malnutrition and hypovolemia, G6PD (Glucose-6-phosphate dehydrogenase) deficiency

Nursing Interventions

- Assess for improvement and relief of pain/ fever
- Monitor therapeutic serum level: 10-30 mcg/mL
- Do not exceed maximum daily recommendation of 4 g/day
- Calculate daily total intake; verify when last dose was given
- Monitor liver function test results

Interactions

Anticholinergics: decreased onset of action
Barbiturates, carbamazepine, hydantoins, isoniazid, rifampin: decreased therapeutic effect & increased hepatotoxic effects
Propranolol: increased action of acetaminophen
Warfarin: increased international normalized ratio
Oral Contraceptives: , Alcohol use, Lamotrigine

Client Education

- Consult HCP for use in children
- Notify HCP for fever >3 days and severe/ recurrent pain
- Do not take more than 4g/day
- Avoid alcohol during use
- Medication can go by multiple brand names. Understand what those are to prevent overdose

Evaluation of Medication Effectiveness

Fever: temporary reduction of fever
Pain: management of mild to moderate pain
- Temporary relief of mild to moderate headache
When combined with an opioid, can produce moderate to severe pain relief.
Reduction in pain score rating, reduced temperature

Module Report

Tutorial: Real Life RN Medical Surgical 4.0

Module: COPD



Individual Name: **Olivia Creamer**

Institution: **Margaret H Rollins SON at Beebe Medical Center**

Program Type: **Diploma**

Standard Use Time and Score

	Date/Time	Time Use	Score
COPD	10/28/2024 8:19:55 PM	45 min	Strong

Reasoning Scenario Details

COPD - Use on 10/28/2024 7:35:12 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	
Scenario	Nurse Allyson is preparing her assignment/worksheet, in anticipation of caring for Mr. Gomez. He is coming from the emergency department to the medical-surgical unit.
Question	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. T - 99.2; P - 100; R - 36; O2 Sat 91% on 5L of O2; BP - 150/94; I - NPO; O - 250mL clear yellow urine Dx - Pneumonia, exacerbation of COPD Labs/Diagnostics - ABGs, CBC, chest x-ray, chem/metabolic profile, UA and C&S of sputum pending Allergies - Ampicillin Saline Lock - Left wrist, flushes fine Pain - Denies Systems - 1. Lung sounds diminished in the bases and upper lobes sounds coarse with inspiratory crackles and occasional rhonchi. Productive cough, greenish-yellow tenacious sputum. 2. Alert, oriented Medications - Antibiotic has not been started. Has had 2 nebulizer treatments with albuterol. (Check the MAR.)
Selected Ordering	Code status Arterial blood gas (ABG) values Last dose of bronchodilator medication
Rationale	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	
Scenario	Nurse Allyson is assessing Mr. Gomez's respiratory and oxygenation status after his recent admission to the medical-surgical unit.
Question	Nurse Allyson assessed Mr. Gomez's respiratory status. Which of the following actions should Nurse Allyson take?
Selected Option	Decrease the rate of oxygen flow.

Rationale	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 ₂ retainers (hypercapnia) and can be more oxygen sensitive, so too much oxygen increases CO ₂ retention and can result in lowered respiratory rates.
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Optimal Decision	
Scenario	Nurse Allyson is preparing to administer an intermittent intravenous (IV) bolus antibiotic medication to Mr. Gomez.
Question	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.
Selected Ordering	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.
Rationale	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.

Optimal Decision	
Scenario	Nurse Allyson completes a calculation in order to correctly set the IV controller pump to infuse an intermittent intravenous (IV) bolus medication.
Question	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?
Selected Option	200 mL/hr
Rationale	<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> <p>$60 \text{ min}/30 \text{ min} = 1 \text{ hr}/X \text{ hr}$</p> <p>$X = 0.5 \text{ hr}$</p> <p>STEP 5: Set up an equation and solve for X.</p> <p>Volume (mL)/Time (hr) = X mL/hr</p> <p>$100 \text{ mL}/0.5 \text{ hr} = X \text{ mL/hr}$</p> <p>$X = 200$</p> <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	
Scenario	Nurse Allyson responds to a request from Mr. Gomez's daughter related to a change in his condition.
Question	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?
Selected Option	"I'll be right there."
Rationale	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	
Scenario	Nurse Allyson reviews the appropriate action to take when a Mr. Gomez demonstrates an allergic response to a medication.
Question	When caring for Mr. Gomez during his allergic reaction, Nurse Allyson assesses his airway. What is the next appropriate nursing intervention?
Selected Option	Assess Mr. Gomez's breathing pattern.
Rationale	The nurse's next action is to monitor the client's breathing pattern for signs of increasing edema and respiratory distress.

Optimal Decision	
Scenario	Nurse Jessica uses therapeutic communication when discussing psychosocial issues with Mr. Gomez and his daughter.
Question	Which of the following nursing intervention is appropriate to meet the needs of Mr. Gomez and his daughter at this time?
Selected Option	Encourage Mr. Gomez and his daughter to further express their emotions.
Rationale	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	
Scenario	Nurse Jessica recognizes the anatomical and physical changes that are occurring when Mr. Gomez develops a pleural effusion.
Question	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?
Selected Option	
Rationale	In a pleural effusion, fluid occupies the space that normally is filled with air in the pleural cavity.

Optimal Decision	

Scenario	Nurse Jessica assesses Mr. Gomez, who has a chest tube and chest drainage system in place.
Question	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?
Selected Option	Assess all tube connections between the chest and the drainage system.
Rationale	Securing the chest tube to the drainage system reduces the risk of air leaks in an airtight system.

Optimal Decision

Scenario	Nurse Allyson understands the basis for Mr. Gomez's protein nutrition status.
Question	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?
Selected Option	Prealbumin
Rationale	Prealbumin is a sensitive indicator of protein nutrition status, more so than albumin.

Optimal Decision

Scenario	Review risk factors that make Mr. Gomez prone to skin breakdown.
Question	Review the list of risk factors to skin breakdown. Which of the following are risk factors that Mr. Gomez exhibit? (Select all that apply.)
Selected Ordering	Alcohol intake History of corticosteroid use Limited mobility Chronic illness (COPD)
Rationale	A risk factor that makes the client prone to skin breakdown includes having a chronic illness such as COPD, which alters oxygenation.

Optimal Decision

Scenario	Nurse Allyson is planning discharge teaching for a client with pneumonia and an acute exacerbation of COPD.
Question	Nurse Allyson is planning discharge teaching for Mr. Gomez. Which of the following should be included in the discharge instructions?
Selected Option	Begin a pulmonary rehabilitation program.
Rationale	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:

Strong	Exhibits optimal reasoning that results in positive outcomes in the care of clients and resolution of problems.
Satisfactory	Exhibits reasoning that results in mildly helpful or neutral outcomes in the care of clients and resolution of problems.
Needs Improvement	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:

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

Physiological Adaptation	Providing and directing nursing care for clients experiencing physical illness.
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Quality and Safety Education for Nurses (QSEN)

Safety	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.
Patient-Centered Care	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
Evidence Based Practice	The use of current knowledge from research and other credible sources, upon which clinical judgment and client care are based.
Informatics	The use of information technology as a communication and information gathering tool that supports clinical decision making and scientifically based nursing practice.
Quality Improvement	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.
Teamwork and Collaboration	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

Cardiac Output and Tissue Perfusion	The anatomical structures (heart, blood vessels, and blood) and body functions that support adequate cardiac output and perfusion of body tissues.
Cognition and Sensation	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.
Excretion	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.
Immunity	The anatomic structures (spleen, thymus, bone marrow, and lymphatic system) and body functions related to inflammation, immunity, and cell growth.
Ingestion, Digestion, Absorption and Elimination	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.
Integument	The anatomical structures (skin, hair, and nails) and body functions related to protecting the inner organs from the external environment and injury.
Mobility	The anatomical structures (bones, joints, and muscles) and body functions that support the body and provide its movement.

Oxygenation	The anatomical structures (nose, pharynx, larynx, trachea, and lungs) and body functions that support adequate oxygenation of tissues and removal of carbon dioxide.
Regulation and Metabolism	The anatomical structures (pituitary, thyroid, parathyroid, pancreas, and adrenal glands) and body functions that regulate the body's internal environment.
Reproduction	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.

Student Name: Olivia Creamer
Clinical Instructor: Mrs. Wingate

ATI Real Life COPD Virtual Clinical Reflection Questions

- 1) Identify two members of the healthcare team collaborating in the care of this patient:
 - a. Dan, Respiratory Therapist
 - b. Maggie, Assistive Personnel
- 2) Did your patient have any abnormal blood work (lab)? If so, *select a priority finding* and discuss why that value is concerning.
 - a. My patient had a Hgb of 9.3 g/dL (Normal: 13.5-17.5). This is a priority finding because Hgb is the cell that carries oxygen throughout the body to oxygenate tissues. Low levels of Hgb indicates decreased oxygen delivery to the body's tissues from the lungs. This causes low SpO2 saturations and S/S of hypoxemia (restlessness, dyspnea, cyanosis, confusion)
- 3) Did your patient have any abnormal clinical diagnostic tests? If so, what were they and what was the abnormal finding? What can that indicate?
 - a. CXR: Hyperinflation of b/l lung fields and a flattened diaphragm. Abnormal area of density present in the L lung base suspicious of PNA.
 - i. The hyperinflation of b/l lung fields and a flattened diaphragm are a characteristic sign of COPD since air is trapped in the lungs resulting in dysfunction of the respiratory muscles.
 - ii. Density, or infiltration on a CXR can indicate fluid in the air spaces, interstitial lung disease, or inflammation. In this instance, it is likely bacterial PNA.
- 4) What were some of the teaching topics covered in the scenario? Why were they important to the care of this patient?
 - a. During procedures, the RN informed the patient of what he/she was doing and also provided rationale as to why he/ she was doing that. This promotes patient involvement in care.
 - b. The RN provided Mr. Gomez with thorough instructions prior to discharge. She educated him on the continuity of medication/ pulmonary exercises and care to a pulmonary rehabilitative specialist.
 - c. The RN informed Mr. Gomez that the puritus was likely an allergic reaction to the IV ceftriaxone. It was essential that the RN provided Mr. Gomez with that information in case he is ever administered ceftriaxone or another cephalosporin again (He knows to say that he has an allergy to it, and the reaction he had).
- 5) Identify three ways that the nursing team demonstrated the promotion of patient safety?
 - a. Verified the 5 rights of medication administration prior to administration of Ceftriaxone: Right patient, dose, medication, time, route, and documentation
 - b. When the daughter alerted the RN about her father's IV site irritation, the nurse promptly responded to the situation. She answered the daughter politely and performed hand hygiene
 - c. All RN's verified first and last name, as well as DOB prior to performing any interventions. Verification of right patient is always essential in maintaining patient safety.

- 6) Do you feel the nurse and medical team utilized therapeutic communication techniques when interacting with individuals, families, and health team members of all cultural backgrounds?
- a. If **yes**, describe: The nurse utilized therapeutic communication techniques when communicating with Mr. Gomez's daughter. Mr. Gomez's daughter was concerned about the status and the safety of her father. Seemingly emotional, the RN facilitated open communication between Mr. Gomez and his daughter by encouraging them to speak about their concerns and express their emotions. Both RN's addressed Mr. Gomez's concerns and questions in a polite, respectful manner. When tasks or requests could not be completed immediately, they stated why and then promised the patient that they would communicate with the necessary personnel to obtain an answer (as to why). Amongst the healthcare team, all members communicated professionally. Addressing each other properly, they maintained patient confidentiality and only discussed pertinent data. Members utilized SBAR reports and expressed appreciate at the conclusion of interactions.

Reflection

- 1) Go back to your Preconference Form:
 - a. Indicate (**circle, star, highlight**) the components of your preconference form that you saw applied to the care of this virtual patient. *(Done on Preconference Form)*
- 2) Review your Nursing Problem Worksheet: Did you select a correct priority nursing problem?
 - a. If **yes**, write it here: Impaired Gas Exchange
- 3) Review your Nursing Problem Worksheet: Did you see many of your anticipated nursing assessments and interventions used? *(Done on Nursing Problem WS)*
 - a. Indicate (**circle, star, highlight**) the ones you saw utilized during the scenario.
 - b. Were there interventions you included that *were not* used in the scenario that could help this patient?
 - i. If **yes**, describe: "Perform 10, slow, deep breaths every hour throughout the shift": I feel as though this would have helped improve the V/Q ratio by preventing air from getting trapped in the bases of the lungs.
 1. "Facilitate coordination across the healthcare team to provide rest periods between activities and PRN": Encourage rest periods to reduce oxygenation requirement of cells. Also to facilitate more insightful deep breathing and promote rest (for healing)
 - ii. If **no**, describe: "If fevered, administer acetaminophen PO as ordered": My patient did not have a fever during my time of care.
- 4) Often patient care will take a different direction than we anticipated at the beginning of our shift. Did that happen here? Yes, laceration/ injury to the L arm (impaired skin integrity) and reaction to ABX IVF.

- a. How did that impact the nursing care delivered? The patient had an allergic reaction to the IV cefepime that was administered. He experienced irritation at the insertion site. This prompted the RN to stop the IV infusion and notify the provider that this medication would have to be changed. This affected Mr. Gomez's care because antibiotics are a priority treatment for his pneumonia infection. Delaying administration of ABX therapy can greatly impact his respiratory status. The laceration to the L arm also impacted the nursing care delivered because the RN had to respond promptly to control the bleed. This also impacted the discharge instructions the RN had to review with the patient.
- b. What new, additional priority nursing problem (diagnosis) did you identify? (Refer to your NANDA list)
 - i. Write it here: Impaired Skin Integrity

What was your biggest "take-away" from participating in the care of this patient? How did this impact your nursing practice: My biggest take-away from this clinical experience is that a patient's health status can change drastically throughout a shift. I never would have guessed, with a diagnosis of COPD, that impaired skin integrity would be a concern for this patient. The patient injuring his L upper extremity so close to discharge required the nursing to promptly intervene and provide education at discharge that may not have been planned. As a nursing student, this encourages me to perform frequent, thorough assessments to quickly identify causes for concern, changes in condition, or ways to prevent these changes from occurring. This clinical experience also taught me the importance of integrating the patient's family members into their care and addressing their concerns. Since these are the individuals that will be "going home" with the patient after discharge, it is important that they understand the patient's status, the rationale behind certain procedures and implementations, and education teachings. Review significant and potential safety needs. Evaluate prior call bell knowledge/ hospital orientation at the beginning of a shift.