



# Acute Respiratory Distress/Failure Secondary to Trauma, Post-Anesthesia, and Pneumonia

## Simulated Clinical Experience (SCE™) Overview

**Location:** Surgical Intensive Care Unit (SICU)

**History/Information:**

A 26-year-old Caucasian male was recently involved in a motor vehicle accident and sustained abdominal injury and trauma to the spleen, intra-abdominal hemorrhage, and hypovolemic shock. He has been admitted to the Surgical Intensive Care Unit (SICU) status-post splenectomy and remains on the ventilator. He has no previous health history. He developed a postoperative complication of pneumonia, requiring intubation and mechanical ventilation. This is his third postoperative day in SICU.

**Healthcare Provider's Orders:**

Flat Plate x-ray of the abdomen for small bore feeding tube position  
After placement confirmed, begin enteral feeding at 10mL/hour  
Increase enteral feeding 10mL/hour every four hours up to 60mL/hour  
Hold enteral feeding if residual greater than 100mL  
Daily Chest x-ray  
ABG daily and prn  
Daily labs: CBC, Electrolytes, BUN, Creatinine, Glucose  
Bi Level Ventilator with advance mode capabilities  
Vent Settings: FiO2 60%, Vt 600mL, Pressure support 12, SIMV 14, PEEP 8  
Acetaminophen 650mg rectal suppository every four hours prn for Temp greater than 38.3°C  
Dopamine drip 800mg/500 D5W, start 5mcg/kg/minute if systolic BP less than 90  
Cefapime 1gm every 12 hours IV  
Flagyl 500mg IVPB every 6 hours  
Clindamycin 600mg IVPB every 8 hours  
Morphine 2-5mg IV every hour prn pain  
IV 0.9% NS at 50mL/hour via right subclavian triple lumen catheter  
Pulmonary capillary wedge pressure (PCWP) every 8 hours  
Pulmonary artery pressure (PAP) every 1 hour

## Learning Objectives

1. Integrates theoretical knowledge from sciences and nursing into professional practice (APPLICATION).
2. Utilizes evidence base, critical thinking, and the nursing process as a framework for care (ANALYSIS).
3. Determines the priorities for nursing using an individualized plan of care for a patient with acute respiratory distress (EVALUATION).
4. Evaluates the effectiveness of therapeutic interventions implemented for a patient requiring mechanical ventilation (EVALUATION).
5. Documents nursing and medical interventions (APPLICATION).
6. Implements best nursing practices for a patient requiring mechanical ventilation (APPLICATION).
7. Integrates interdisciplinary collaboration (APPLICATION).
8. Effectively communicates with healthcare provider and other disciplines regarding the progress of patient (APPLICATION).

## Questions to Prepare for the Simulated Clinical Experience

1. What is the pathophysiology of Acute Respiratory Distress for a patient with pneumonia?
2. What are the causes of Acute Respiratory Distress Syndrome (ARDS)?
3. What assessments should be performed for a patient with ARDS?
4. Identify prioritized nursing interventions for a patient with ARDS.
5. What are community and nosocomial acquired infections?
6. What is the nursing and medical management for a patient with ARDS?
7. What medications are used to treat ARDS?
8. Why are paralytic agents and sedation given?
9. Describe the nursing management for a patient being weaned off the ventilator. How do you know that weaning is effective?
10. What are the modes of ventilator setting and functions?
11. Why is bi-level ventilation indicated for treatment of ARDS?

## References

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