**Chest Tube Insertion and General Ongoing Care**

**Simulated Clinical Experience (SCE™) Overview**

**Location:** Emergency Department

**History/Information:**
This 24-year-old male was brought to the Emergency Department via ambulance post motor vehicle accident. The patient arrived 45 minutes prior to shift change. He was the restrained driver experiencing a side collision impacting the driver's side door with deployment of the front airbag. There were no other passengers in the car. The patient sustained right sided facial and right upper extremity skin lacerations. The patient complained of muscle soreness to the chest wall; no redness was noted. He is diaphoretic and in apparent respiratory distress. There was no loss of consciousness in the field and he is awake and alert. The patient denies any significant prior medical history. Chest x-ray confirmed a right pneumothorax. The patient is anxious related to the accident and upcoming insertion of chest tube.

**Healthcare Provider's Orders:**
- IV 0.9% NS at 125mL/hour
- Oxygen 4LPM via nasal cannula
- Cardiac monitor
- Continuous SpO₂
- CBC, Electrolytes, BUN, Glucose, Creatinine, PT, PTT STAT
- ECG STAT
- Vital signs every hour
- Complete bedrest
- Chest tube to (-)20cm water suction

**Learning Objectives**

1. Implements and evaluates a plan of care for the patient with a chest tube (SYNTHESIS).

2. Outlines the possible causes of respiratory dysfunction with the patient with a chest tube (ANALYSIS).

3. Manages the nursing care of the patient with respiratory distress secondary to chest tube dysfunction (APPLICATION).
Questions to Prepare for the Simulated Clinical Experience

1. Discuss the rationale for why clamping of chest tubes is no longer advocated as routine clinical practice.

2. What are four clinical manifestations of a pneumothorax?

3. Describe the pressure changes that occur intrapleurally with a pneumothorax.

4. What is the emergency management if a chest tube becomes disconnected?

5. Develop a teaching plan for the patient with a chest tube following pneumothorax.

6. Describe the medical and nursing management of pneumothorax. Include a discussion of symptomatology, diagnostic tests, and potential complications.

7. Identify the function of each of the components of the closed chest tube drainage system.

8. What are the differences in characteristics of drainage when a chest tube is inserted for a hemothorax, pneumothorax, or empyema?

9. What is the difference in placement location of a chest tube when inserted for a hemothorax versus pneumothorax?

10. Outline routine care and maintenance of the chest tube system.

11. Why is milking a chest tube not advocated as routine clinical practice?

12. What information can be obtained by asking a patient with a chest tube to cough?

References


