Gunshot Wound Trauma

Simulated Clinical Experience (SCE™) Overview

Location: Emergency Room; Surgical Intensive Care Unit

History/Information:
The patient is a healthy, normally active 24-year-old college student who was driving on the freeway heading to class, when he was shot. The bullet went through the center of his front window and struck him in the upper right chest. The bullet exited his right upper back and lodged in the car seat back. He was able to maneuver his car to the side of the road and call emergency medical services (EMS) on his cell phone. He was having difficulty breathing and was barely able to tell the dispatcher his location. The paramedics arrived to observe the patient in apparent respiratory distress, complaining of difficulty breathing, and severe chest pain. They observed bleeding from the front of his right chest, heard a sucking noise with respirations and applied a three-sided occlusive dressing to the wounds. They transported the patient to the local level I trauma emergency department.

Healthcare Provider's Orders:
Continuous ECG, vital signs, and SpO_2 monitoring
Glucose, CBC with differential, Electrolytes, BUN, Creatinine, PT, PTT, Blood Type and Cross match for 4units of whole blood, Urinalysis, ABG STAT
Portable Chest x-ray STAT
O_2 at 10-15LPM via non-rebreather mask to maintain SpO_2 greater than 92%
Give 1000mL bolus of 0.9% NS IV then IV 0.9% NS at 200mL/hour in 2 lines with large bore needles
Nafcillin sodium 2gm IVPB STAT
Urinary catheter to gravity drainage
NPO
Nasogastric tube to low suction
Consent and prepare for right chest tube
Lidocaine 1% for local anesthesia
Portable Chest x-ray STAT after chest tube placement
Consent and prepare for surgery: Exploration and repair right thoracic gunshot wound

Learning Objectives

1. Recognize and intervene in a crisis situation with the appropriate nursing interventions (ANALYSIS).
2. Use critical thinking and the nursing process as a framework for clinical decision-making (ANALYSIS).
3. Correctly identify open pneumothorax and respond immediately with appropriate treatment (APPLICATION).
4. Correctly assist with placement of chest tube (APPLICATION).
5. Provide appropriate care for a postoperative patient in Surgical Intensive Care Unit with chest tubes (APPLICATION).

Questions to Prepare for the Simulated Clinical Experience

1. Define triage. Identify and describe the three levels. Compare this system with the five-level system that is becoming more commonly used.
2. What are the priorities of emergency medical and nursing care?
3. What is meant by "primary survey/secondary survey" approach to emergency treatment?
4. What is meant by "forensic evidence" in a trauma patient in the Emergency Department?
5. Discuss the pathophysiology of hypovolemic shock.
6. Describe the signs and symptoms in addition to the treatment of hypovolemic shock.
7. Describe the life-threatening conditions that may occur as a result of a chest injury and penetrating chest injuries.
8. Describe specific life-threatening conditions that may occur as a result of a penetrating chest injury.
9. Describe possible traumatic results of a gunshot wound to the chest.
10. When would surgical intervention be required with a chest gunshot wound?
11. Discuss the cause, signs/symptoms and treatment of an open pneumothorax.
12. Identify the nursing care of a patient with chest tubes.

References

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