

M7: Apply an Occlusive Dressing and Perform a Needle Chest Decompression

Based on:

081-COM-0069-Apply an Occlusive Dressing

081-000-2558-Perform Needle Decompression

081-000-1001-Measure a Patient's Pulse Oxygen Saturation

081-COM-0013-Record Treatment on a Tactical Combat Casualty Card (DD 1380)

Task: Treat a chest wound and tension pneumothorax.

Condition: You are a member of a team on a combat patrol that has come under small arms fire in a non-CBRNE environment. You witness a teammate in the open receive a gunshot wound to upper body. Your teammate was able to move to you and is responsive. You are behind cover, not under hostile fire, and security has been established. You must begin treatment while waiting on medical personnel to arrive. The casualty is alert and complaining of difficulty breathing. Another Soldier is helping you finish the casualty assessment and is obtaining the other vital signs.

Standard: Perform all tasks to standard, in sequence, within 10 minutes, without causing further injury.

Station Requirements: A simulated casualty (mannequin with all extremities and ribs that can be seen and/or felt) in a full combat uniform per Unit SOP, including weapon, and a fully packed Improved First Aid Kit (IFAK). Casualty must have two simulated gunshot wounds to the upper body: one on the front (entry) and one on the back (exit). A TCCC Card with the administrative data already filled out, alcohol pens and eraser. A Basic Life Support (BLS) bag with occlusive dressings and/or materials with which to improvise. Pulse oximetry device (fingertip) and alcohol swabs. May cover the screen with tape and degraded vitals for testing. Provide the Candidate with, or ensure the Candidate has a watch with the correct date and time.

1. Apply occlusive dressing.
 - a. Expose and assess the injury. *Note: Remove enough clothing to access the injury.*
 - b. Place hand over the open chest wound to create a temporary seal.
 - c. Apply Occlusive dressing from the casualty's IFAK over the wound. (First wound found first wound treated). *Note: Ensure material extends 2" beyond the edge of the wound. If improvised seal is used, tape four sides of nonporous dressing down.*
 1. Wipe dirt and fluid from skin with gauze.
 2. Place dressing on wound, vent directly over wound opening, upon full expiration, with adhesive side down (ensuring not to touch adhesive side of dressing).
 3. Firmly press dressing on skin to ensure a good seal. Note If using a HYFIN vented chest seal do not tape to secure (vents must remain open). If using Bolin or other vented commercial chest seal, tape all sides of chest seal with 2-3 inches of tape.
 - d. Log roll the casualty or have the conscious casualty sit up and examine the back for an exit wound.
 - e. Apply an occlusive dressing to the exit wound using the same standards as per (step c).
2. Verify the presence of tension pneumothorax by checking for at least three of the indications below; verbalize as needed.
 - a. Question the casualty about difficulty in breathing, pain on the affected side, or coughing up blood, and observe for signs of progressive respiratory distress. **Grader will state, "Casualty is gasping for air and has pain on the wound side."**
 - b. Observe the casualty's bare chest for respiratory rate depth and abdomen for progressive distension. **Grader will state, "Casualty has poor respiratory rate and depth, and the abdomen is mildly distended."**
 - c. Look at and feel the patient's chest for signs of air in the chest wall (subcutaneous emphysema). **Grader will state, "You feel a crackling sensation on the casualty's chest."**
 - d. Observe the chest for failure of one or both sides of the chest to expand normally upon inhalation. **Grader will state, "You observe one side failing to rise with the other."**
 - e. Look for bluish skin (cyanosis). **Grader will state, "You observe mild cyanosis."**
3. Identify needle decompression site. Primary site: 5th intercostal space (ICS) on the lateral chest wall at the anterior axillary line (AAL) on the same side as the injury.
 - a. Clean site with an antimicrobial solution. *Note: Alcohol or Betadine.*
 - b. Insert needle into the chest at a 90-degree angle to the chest wall. Remove the plastic cap from the 3.25 inch, 10 or 14-gauge needle and remove the cover to the needle's flash chamber.
 - c. Insert the needle into the skin over the superior border of the lower rib at the site and

direct the needle into the ICS at a 90-degree angle.

d. As the needle enters the pleural space, a "pop" is felt, followed by a possible hiss of air. Ensure the needle is advanced all the way to the hub and left in place for 5-10 sec.

e. Remove the needle, leaving the catheter in place.

f. If tension pneumothorax recurs (as noted by return of respiratory distress), repeat the needle decompression on the injured side.

g. Stabilize catheter hub to the chest wall with adhesive tape.

h. Listen for increased breath sounds or observe decreased respiratory distress.

4. Measure pulse and O2 SAT. Candidate can perform this step on themselves or another soldier since the casualty must be a mannequin, or Grader may prep the device screen with degraded vitals.

a. Wipe the index, middle, or ring fingertip with alcohol to ensure it is clean and dry.

b. Apply the sensor and document readings on DD Form 1380.

5. Remove DD Form 1380 from IFAK and record all treatments. Administrative data will already be filled out.

a. Front of card.

1. Evacuation (EVAC) - Mark an "X" on the casualty's evacuation priority/precedence (Urgent; Priority; or Routine).

2. Date - Write date of injury in DD-MMM-YY format. For example, "29-JUN-13."

3. Time - Write 24-hour time of injury, indicating whether local (L) or Zulu (Z) time, such as "1300Z."

4. Mechanism of Injury - Mark an "X" on the mechanism or cause of injury (artillery, blunt, burn, fall, grenade, gunshot wound (GSW), improvised explosive device (IED), landmine, motor vehicle crash/collision (MVC), rocket propelled grenade (RPG), other (specify)). Mark all that apply.

5. Injury - Mark an "X" at the site of the injury(s) on the body picture. For burn injuries, circle the burn percentage(s) on the figure. If multiple mechanisms of injury and multiple injuries, draw a line between the mechanism of injury and the anatomical site of the injury.

6. Time - Write time of vital signs taken.

7. Pulse (rate & location) - Write casualty's pulse rate.

8. O2 Sat - Write casualty's O2 SAT.

9. AVPU - Write casualty's level of consciousness (AVPU: Alert, responds to Verbal stimulus, responds to Pain stimulus, Unresponsive).

b. Back of card.

1. Evacuation (EVAC) - Mark an "X" on the casualty's evacuation priority/precedence (Urgent; Priority; or Routine).

2. C - Mark an "X" for all Circulation hemorrhage control interventions. For tourniquets (TQ), mark category (Extremity, Junctional and/or Truncal) and write name of TQ(s) used. For dressings, mark category (Hemostatic, Pressure, and/or Other) and write type of dressing(s) used.

3. B - Mark an "X" for all Breathing interventions oxygen (O2), needle decompression (Needle-D), Chest-Tube, (Chest-Seal) and write type of device(s) used.

4. First Responder Name - Print the first responder's name (Last, First).

5. First Responder Last 4 - Write last four numbers of first responder's Social Security number.

c. Secure the DD Form 1380 to the casualty per Unit SOP. *Note: Do not attach the Card to casualty's body armor as this equipment may be separated from the casualty once they arrive at the medical treatment facility (MTF).*