

## Skill Sheet 4

### Emergency Surgical Airway

**Objective:** DEMONSTRATE the procedure for a surgical airway (cricothyroidotomy).

**References:**

PHTLS (Military Edition) Seventh Edition Elsevier, Mosby  
ATLS Manual, American College of Surgeons, Chicago, IL

**Evaluation:** Students will be evaluated as a Pass/Fail (P/F). The instructor will verify the accuracy of the student's ability to perform an emergency surgical cricothyroidotomy on an airway trainer by means of observing the student's procedures and technique.

**Materials:**

Student Checklist

Surgical Cricothyroidotomy Simulator, Betadine/Alcohol Prep, #10 or #15 scalpel, curved hemostats, cric hook, 6.0 ET tube, 10cc Syringe, Gauze pads (4x4), gauze tape or circumferential tie, Ambu Bag.

**Instructor Guidelines:**

1. Provide each instructor with a Student Checklist.
2. Ensure student has all student-required materials
3. Read the Learning Objective and the evaluation method to the student.
4. Explain the grading of the exercise.
5. Allow time for the students to extract the information required from the instructor-provided scenario.

**Performance Steps:**

1. Assemble and test all necessary equipment.
2. Verbalize that body substance isolation (BSI) precautions were considered.
3. Assess the upper airway for visible obstruction.
4. Identify the cricothyroid membrane between the cricoid and thyroid cartilages.
5. Palpate the cricothyroid membrane and (while stabilizing the cartilage) make a vertical incision through skin directly over the cricothyroid membrane.

**Instructor note:** A horizontal incision is an acceptable alternative.

6. While continuing to stabilize the larynx, use the scalpel or a hemostat and cut or poke through the cricothyroid membrane.
7. Insert the tips of the hemostat through the opening and open the jaws to dilate the opening. A cric hook may also be used for this purpose.
8. Insert the ET tube between the jaws of the hemostat; the tube should be in the trachea and directed towards the lungs.
9. Inflate the cuff with 10ml of air.
10. Check for air exchange and verify placement of the tube by listening and feeling for air passing in and out of the tube causing the tube to mist and looking for bilateral rise and fall of the chest.
11. If position is correct, secure the tube with tape or a commercial tube securing device.

12. Apply a dressing to further protect the tube and incision site.
13. Monitor the casualty's respirations.
14. Ventilate if required.

### Perform an Emergency Surgical Airway (Cricothyroidotomy)

| Task  | Completed |       |       |
|---|-----------|-------|-------|
|   | 1st       | 2nd   | 3rd   |
| Verbalized that body substance isolation (BSI) precautions were considered.   | P / F     | P / F | P / F |
| Assessed the upper airway for visible obstruction.  | P / F     | P / F | P / F |
| Correctly identified the cricothyroid membrane.   | P / F     | P / F | P / F |
| Palpated the cricothyroid membrane and (while stabilizing the cartilage) made a vertical incision through the skin directly over the cricothyroid membrane. (Horizontal incision is an acceptable alternative.) | P / F     | P / F | P / F |
| While continuing to stabilize the larynx, used the scalpel or a hemostat and cut or poke through the cricothyroid membrane.   | P / F     | P / F | P / F |
| Inserted the tips of the hemostat through the opening and opened the jaws to dilate the opening or used a cric hook for this purpose.   | P / F     | P / F | P / F |
| Inserted the ET tube between the jaws of the hemostat; the tube is in the trachea, directed distally towards the lungs.   | P / F     | P / F | P / F |
| Inflated the cuff with 10 ml of air.  | P / F     | P / F | P / F |
| Checked for air exchange and verified placement of the tube by listening and feeling for air passing in and out of the tube, observed tube misting, and looked for bilateral rise and fall of the chest.        | P / F     | P / F | P / F |
| If air exchange is adequate, secured the tube.  | P / F     | P / F | P / F |
| Applied a dressing to further protect the tube and incision site.   | P / F     | P / F | P / F |
| Monitored the casualty's respirations.  | P / F     | P / F | P / F |

**Critical Criteria:**

- \_\_\_\_\_ Did not obtain a patent airway with the emergency surgical airway.
- \_\_\_\_\_ Did not correctly identify the location of the cricothyroid membrane.
- \_\_\_\_\_ Performed procedure in a manner that was dangerous to the casualty.

**Evaluator's Comments:**

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Evaluator: \_\_\_\_\_ Pass: \_\_\_\_\_ Fail: \_\_\_\_\_