

## PRACTICE GUIDELINE

Effective Date: 6-18-04

Manual Reference: **Deaconess Trauma Services**

### **TITLE: CRICOTHYROTOMY**

**PURPOSE:** To provide a guideline for when a surgical airway is indicated and performance of a cricothyrotomy.

**DEFINITION:** Cricothyrotomy is a surgical procedure to obtain an airway; in which, a tube is placed through the cricothyroid membrane.

### **GUIDELINES:**

1. Indications:
  - a. Inability to get an emergent airway after an adequate attempt at endotracheal intubation.
  - b. An initial approach to the airway in patients with:
    - i. Severe facial trauma with distortion of the face and nose.
    - ii. Upper airway obstruction.
    - iii. Fracture of the larynx.
2. Equipment:
  - a. No. 6 Shiley tracheostomy tube (or smaller for younger patients) or a No. 6 endotracheal tube.
  - b. Betadine, lidocaine, syringe, 22 gauge needle.
  - c. Cricothyrotomy tray.
3. Procedure:
  - a. Place the patient in the supine position if possible. Due to impending airway obstruction from secretion management, this procedure may have to be done in the decubitus position.
  - b. Prep neck with betadine. Use local anesthesia if the situation permits.
  - c. Stabilize the thyroid cartilage.
  - d. Make a transverse or longitudinal incision over the cricothyroid membrane.
  - e. Incise through membrane, being careful not to disrupt the thyroid cartilage or cricoid cartilage.
  - f. Insert hemostat or your index finger through cricothyroid opening to dilate the opening to an appropriate size.
  - g. Insert either a tracheostomy tube (size 6 or less) or endotracheal tube into the cricothyroid opening. Make sure that the tube is not advanced past the carina.
  - h. Inflated cuff and ventilate patient with bag-valve-mask.
  - i. Confirm intratracheal position with two different sources: carbon dioxide detector, auscultation, chest rise/fall, or end tidal CO<sub>2</sub> detector.
  - j. Observe chest movement and auscultate chest to determine adequate air insufflation.
  - k. Secure the endotracheal tube or tracheostomy with trach ties.
  - l. Convert to a standard trach as indicated.

4. Potential complications:
  - a. Creation of a false passage.
  - b. Subglottic stenosis, laryngeal stenosis.
  - c. Hemorrhage
  - d. Laceration of the esophagus.
  - e. Laceration of the trachea.
  - f. Mediastinal emphysema.
  - g. Aspiration.
  - h. Infection.

**REFERENCES:**

- ❖ Deaconess Trauma Guideline Manual, ENDOTRACHEAL INTUBATION AND AIRWAY MANAGEMENT.

REVIEWED DATE	REVISED DATE
JAN 05	JAN 08
JAN 06	
JAN 07	