

Emergency Cricothyrotomy – 30.040

INDICATIONS:

This technique is to be used only when other attempts to establish an airway have been unsuccessful (i.e., you are unable to intubate or ventilate using BVM) and respiratory obstruction exists. Such conditions are most likely to be found with foreign-body obstruction; facial and laryngeal trauma; inhalation, thermal, or caustic injury to the upper airway; angioneurotic edema; upper airway bleeding; epiglottitis; and severe croup.

PROCEDURE:

Place the patient in a supine position with support under the shoulders and mild hyperextension of the neck. Palpate the neck in the midline and locate the slight depression just below the notch of the thyroid cartilage. This is the position of the cricothyroid membrane.

QuickTrach

- A. Place the patient in a supine position. Assure stable positioning of the neck region and hyperextend the neck.
- B. Locate the cricothyroid membrane (in the midline between the thyroid cartilage and the cricoid cartilage).
- C. Secure the larynx laterally between the thumb and middle finger and reconfirm the location of the cricoid membrane.
- D. Firmly hold the device and puncture the cricothyroid membrane at a 90 degree angle.
- E. After puncturing the cricothyroid membrane, check entry of the needle into the trachea by aspirating air through the syringe. If air is aspirated the needle is in the trachea.
- F. Change the angle of the needle to 60 degrees and advance the device forward into the trachea to the level of the stopper.
- G. Remove the stopper being careful not to advance the device further into the trachea with the needle still attached.
- H. Hold the needle and syringe firmly and slide only the plastic cannula along the needle into the trachea until the flange rests on the neck. Carefully remove the needle and syringe.
- I. Secure the device to the neck.
- J. Apply the connecting tube to the device and ventilate.
- K. Consider sedation with Versed® as with RSI if not already given.

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Needle Cricothyrotomy – (pediatric patients 12 years and younger).

- A. Assemble equipment. 14ga or 16ga angiocath, 3cc syringe, 2.5 mm ETT adapter, oxygen, BVM.
- B. Place the patient in a supine position with support under the shoulders and mild hyperextension of the neck unless C-Spine injury is suspected.
- C. Palpate the neck in the midline and locate the slight depression just below the notch of the thyroid cartilage. This is the position of the cricothyroid membrane.
- D. Prepare the area with antiseptic solution.
- E. Stabilize the airway between thumb and forefingers.
- F. Insert the needle with catheter into the cricothyroid membrane at a 45-60 degree angle caudally (toward the pts feet).
- G. When the needle is through the membrane. Stop and aspirate for air to ensure tracheal entry.
- H. Advance the catheter over the needle and then remove the needle.
- I. Attach the 2.5 ETT adapter to the hub of the catheter and begin ventilations with the BVM.
- J. Secure the cannula with tape after confirming correct placement by auscultation for breath sounds (5 point check). Observe for kinking of cannula.
- K. Consider sedation with Versed® as with RSI if not already given.

NOTES & PRECAUTIONS:

- A. Hazards in performing this procedure are primarily those of damage to nearby structures - major vessels to either side of the midline, to the vocal cords if the puncture is made too high, or a through and through injury of the trachea if the puncture is made too deeply. The latter is more commonly seen in infants and children whose tracheas may be deceptively narrow.
- B. Palpation of the cricothyroid membrane is very difficult in the infant and young child. The key to success is immobilization of the trachea throughout the procedure.
- C. Needle cricothyrotomy is only a temporizing measure providing oxygenation not adequate ventilation.
- D. Quick Trach- If aspiration of air is not possible because of an extremely thick neck, you may remove the stopper and carefully insert needle farther until entrance into the trachea is made.
- E. Needle Cricothyrotomy- If catheter becomes occluded, flush with 2-3 ml of normal saline.