



County of El Dorado

Emergency Medical Services Agency

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NEEDLE CRICOTHYROIDOTOMY RUSCH® QUICKTRACH®

A temporary emergency airway device for adult and pediatric patients that allows quick and safe ventilation of a patient in the presence of acute respiratory distress with upper airway obstruction. Before performing this procedure in a patient with a foreign body obstruction the paramedic should attempt to push the obstruction down into the right or left bronchus with an ET tube while visualizing the airway via direct laryngoscopy.

INDICATIONS:

- Epiglottitis
- Laryngospasm
- Facial Trauma/Burns
- Laryngeal edema
- Fractured larynx
- Foreign body obstruction

CONTRAINDICATIONS:

- When other BLS or ALS adjuncts can successfully maintain the airway
- When landmarks cannot be clearly identified
- Transection of the trachea distal to the cricothyroid site
- Relative contraindications may exist such as known tracheal disease, cancer, or lower airway obstruction. However, this is a procedure of last resort thus consider the benefit vs. the risk

COMPLICATIONS:

- Subcutaneous emphysema
- Tracheal mucosal injury
- Mediastinal emphysema
- Bending of catheter
- Hemorrhage
- Pneumocyst
- Esophageal or mediastinal puncture
- Aspiration
- Barotrauma
- Thyroid perforation

RUSH® QuickTrach® Cricothyrotomy Kit

- 1 QuickTrach Syringe with stopper
- 1 Connecting tube with 15mm adapter
- 1 Cushion neckband

PROCEDURE:

- 1) Demonstrate Body Substance Isolation (BSI) procedure.
- 2) Select appropriate size for the QuickTrach Cricothyrotomy Kit

Patient Size	Kit Size
77 lbs and higher	4.0 mm
22 lbs – 77 lbs	2.0 mm

- 3) Place patient in the supine position and assure stable positioning of the neck and hyperextend the neck (unless cervical spine injury is suspected).
- 4) Secure the larynx laterally between the thumb and forefinger. Find the cricoid membrane (in midline between the thyroid cartilage and the cricoid cartilage). This is the puncture site.
- 5) Prep site vigorously scrubbing with appropriate prep solution.
- 6) Firmly hold device and puncture the cricoid membrane at 90 a degree angle.
- 7) After puncturing the cricoid membrane, check the entry of the needle into the trachea by aspirating air through a syringe. If air is present, the needle is within the trachea.
- 8) Now change the angle of insertion to 45 degrees (from the head) and advance the device forward into the trachea to the level of the stopper. The stopper reduces the risk of inserting the needle too deeply and causing damage to the rear wall of the trachea.
- 9) Should no aspiration of air be possible because of an extremely thick neck, it is possible to remove the stopper and carefully insert the needle further until entrance into the trachea is made.
- 10) Remove stopper. After stopper is removed, be careful not to advance device further with needle still attached.
- 11) 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.
- 12) Secure the cannula with the neck strap.
- 13) Apply connecting tube to 15 mm connection and connect the other end to BVM resuscitation bag or ventilation circuit.
- 14) Patient shall be placed on ETCO₂ monitoring and data shall be documented in the ePCR.
- 14) Ventilate patient at appropriate rate.
- 15) Never attempt to place a RUSH® QuickTrach® in a moving emergency vehicle.