

## **Surgical Cricothyrotomy**



## **Clinical Indications:**

- Failed Airway Protocol
- Management of an airway when standard airway procedures cannot be performed or have failed in a patient > 12 years old.

## Procedure:

- 1. Have suction and supplies available and ready.
- 2. Locate the cricothyroid membrane utilizing anatomical landmarks.
- 3. Prep the area with an antiseptic swab (Betadine).
- 4. Attach a 5-cc syringe to an 18G 1 & 1/2-inch needle.
- 5. Insert the needle (with syringe attached) perpendicularly through the cricothyroid membrane with the needle directed posteriorly.
- 6. During needle insertion, gentle aspiration should be applied to the syringe. Rapid aspiration of air into the syringe indicates successful entry into the trachea. Do not advance the needle any further. Attach forceps and remove syringe.
- 7. With the needle remaining in place, make a 1-inch vertical incision through the skin and subcutaneous tissue above and below the needle using a scalpel. Using blunt dissection technique, expose the cricothyroid membrane. This is a bloody procedure. The needle should act as a guide to the cricothyroid membrane.
- 8. With the needle still in place, make a horizontal stabbing incision approx. 1/2 inch through the membrane on each side of the needle. Remove the needle.
- Using (skin hook, tracheal hook, or gloved finger) to maintain surgical opening, insert the cuffed tube into the trachea. (Cric tube from the kit or a #6 endotracheal tube is usually sufficient).
- 10. Inflate the cuff with 5-10cc of air and ventilate the patient while manually stabilizing the tube.
- 11. All of the standard assessment techniques for insuring tube placement should be performed (auscultation, chest rise & fall, end-tidal CO<sub>2</sub> detector, etc.) Esophageal bulb devices are not accurate with this procedure.
- 12. Secure the tube.
- 13. If Available apply end tidal carbon dioxide monitor (Capnography) and record readings on scene, en route to the hospital, and at the hospital.
- 14. Document ETT size, time, result (success), and placement location by the centimeter marks either at the patient's teeth or lips on/with the patient care report (PCR). Document all devices used to confirm initial tube placement and after each movement of the patient.
- 15. Consider placing an NG or OG tube to clear stomach contents after the airway is secured.
- 16. It is strongly recommended that the airway (if equipment is available) be monitored continuously through Capnography and Pulse Oximetry.

## **Certification Requirements:**

Maintain knowledge of the indications, contraindications, technique, and possible complications of the procedure. Assessment of this knowledge may be accomplished via quality assurance mechanisms, classroom demonstrations, skills stations, or other mechanisms as deemed appropriate by the Survival Flight Medical Director.