

## Needle Cricothyrotomy ( $\geq$ PL5)

### Clinical Indications:

1. Patients < 10 years of age.
2. With obstructed airway or in whom all conventional methods of oxygenation have failed.

### Contraindications:

1. Anytime a less invasive maneuver would allow oxygenation of the patient.
2. Tracheal transection.

### Notes/Precautions:

1. Cricothyroid membrane is located by:
  - a. Palpating the protuberant midline portion of the thyroid cartilage - *Adams Apple*
  - b. Move the fingertip inferiorly until it rests in the soft flat depression between the thyroid cartilage and the cricoid cartilage.
2. In order to minimize the risk of dislodgement:
  - a. The individual completing the procedure should direct any/all patient movement.
  - b. BVM is to be disconnected from the ET tube adapter any patient movement.
  - c. The catheter is to be reassessed following any patient movement.
3. Appropriately sized angiocath is generally 14-18 gauge, depending on the size of the patient.

### Procedure:

1. Position patient supine with head slightly extended unless contraindicated due to suspected cervical spine injury.
2. Prepare anterior surface of the neck with Chlorohexidine.
3. Locate the cricothyroid membrane.
4. Place thumb and index finger of non-dominant hand on either side of the tracheal cartilage to stabilize the trachea and anchor and stretch the skin slightly.
5. Connect appropriately sized angiocath to a  $\geq$  10cc syringe.
6. Pierce the skin and cricothyroid membrane at a 45-degree angle, directing the catheter tip inferiorly while pulling suction on the syringe until air is aspirated freely.
7. Advance the catheter to the skin and withdraw needle.
8. Connect catheter to 3.0 mm pediatric ET tube adapter.
9. With a BVM attached to 100% oxygen begin ventilating and confirm proper placement.
10. With hub of catheter snug against the neck, tape catheter firmly in place.
  - a. Catheter and ET tube adapter are to be secured at all times by hand
  - b. Catheter should be secured with tape and benzoin to prevent slipping
11. Providers may continue to use backboards to assist in patient movement as needed.