



August 5, 2024

To: EMS Personnel
From: Highland Park EMS Team
Subject: Needle Cricothyrotomy - Adapters

Dear EMS Personnel,

There are upcoming changes to the **Cricothyrotomy - Needle SOP**. Region edits will occur near the end of 2024. The following adaptations are permitted until formal completion of the SOP.

CRICOTHYROTOMY - NEEDLE

PROTOCOLS USED:

- [Pediatric Advanced Airway](#)
- [Pediatric Airway Obstruction](#)

INDICATIONS:

- Failure to intubate, failure to ventilate with a BVM
- Other devices or rescue techniques have failed/not available
- Pediatric < 10kg

CONTRAINDICATIONS:

- Pediatric patient > 10kg
- Ability to secure airway with less invasive methods
- Airway trauma that makes cricothyroid membrane access futile - laryngeal fracture, tracheal transection

EQUIPMENT:

• 10-14G IV catheter	• 7.5 ETT adapter
• 3mL syringe	• 10mL syringe

	EMR	EMT	PM
1. Continue ALS care as indicated by specific protocol			•
2. Place patient in supine position. Hyperextend neck to make anatomy accessible. Consider towel roll under neck			•
3. Stabilize larynx/trachea with non-dominant hand using the thumb and middle finger. Locate and palpate the cricothyroid membrane between the thyroid and cricoid cartilage.			•
4. Prepare the area with betadine or similar antiseptic.			•
5. Attach 10mL syringe to 10-14G IV catheter. Insert IV catheter at a 45-degree angle through cricothyroid membrane into the trachea.			•
6. Aspirate air through syringe to confirm entry of needle into trachea			•
10. Hold needle/syringe firmly. Slide plastic cannula forward into trachea until flush against neck			•
11. Remove needle and syringe			•
Remove plunger of 3mL syringe. Attach 7.5 ETT adapter to syringe. Attach to IV catheter.			•
12. Connect BVM to ETT adapter.			•
13. Confirm placement with EtCO2. Secure hub to neck.			•

NOTE:

- The Gold Standard in confirmation of placement is Capnography. Secondary methods include auscultation, bilateral chest rise and fall, fogging of tube, pulse oximetry.

Age not Weight

- < 10 y/o - needle cric
- > 10 y/o - surgical cric

Options

- 3-5 ETT adapter directly to IV catheter (no syringe)
- 7-0 ETT adapter attached to a plunger-less syringe

VIDEO

- Watch the following video presentation: [Needle Cric](#)
- ATTENTION to segment 3:08 - 4:17

Saline Filled Syringe

- May use syringe partially filled with saline, so
- Confirmation of tracheal entry results in visible bubbles