

Pediatric Needle Cricothyroidotomy

Pediatric Needle Cricothyroidotomy

Supplies

- (Kit located in 2nd Drawer of Pediatric Grey Trauma Cart—Trauma Bay 2)
- 16G Angiocath (IV catheter)
- Macrobore IV Extension Tubing
- End of a 3.0 ETT
- 10 ml Syringe with 5ml saline (for air placement confirmation)

Process for Cannot Intubate and Cannot Ventilate (CICV) Emergency

Video available here: <https://youtu.be/EEqXqiOyKr4?si=iF8VRp-n3FwuVeIB>

1. Identify landmarks and stabilize the larynx with non-dominant hand
2. Access the cricothyroidotomy membrane with a 16G angiocath, aim in the caudad direction
3. Connect syringe with saline and pull-back to confirm placement by air aspiration
4. If placement is confirmed, connect macrobore tubing to catheter and then place 3.0 ETT end on tubing (See picture).
5. Connect to a pressure limiting bag or a jet ventilation device
6. Breaths should be delivered over 1 second and allowing for 2 second exhalation
7. Observe for complications such as: subcutaneous emphysema, hemorrhage, hypoventilation, equipment failure, catheter kink, &

false placement.



Additional Resources:

- <https://www.paediatricemergencies.com/intubationcourse/course-manual/cricothyroidotomy/>
- <https://medicine.uiowa.edu/iowaprotocols/needle-cricothyroidotomy>

Please contact Dr. Emily Cantrell, Pediatric Trauma Medical Director, or Lora Hofstetter, Pediatric Trauma Program Coordinator for questions and additional training.

Revision #1

Created 13 December 2024 16:12:32 by Emily Cantrell

Updated 23 January 2025 18:57:48 by Emily Cantrell