

**NEEDLE CRICOTHYROTOMY – ENK FLOW OXYGEN MODULATOR**

Name: \_\_\_\_\_ Date: \_\_\_\_\_ License # \_\_\_\_\_

Transtracheal catheter ventilation is a temporary emergency procedure to provide oxygenation when airway obstruction cannot be relieved by other methods.

A. Assessment/Treatment Indicators:

1. Patient is unconscious and unresponsive.
2. Total airway obstruction following unsuccessful attempts of BLS and ALS obstructed airway procedures.
3. Massive facial trauma in a patient who cannot be intubated by either oral or nasotracheal means.
4. Injury to the trachea/larynx in a patient who cannot be adequately ventilated or intubated by either oral or nasotracheal means.
5. Complete airway obstruction due to infection or allergic reaction.

B. Contraindications: NONE.

C. Potential Complications:

1. With the high pressure used during ventilation and the possibility of air entrapment, may produce a pneumothorax.
2. Hemorrhage may occur at the site of the needle insertion, especially if the thyroid is perforated.
3. Perforation of the esophagus.
4. Subcutaneous or mediastinal emphysema.
5. Usually does not allow enough ventilation to adequately eliminate carbon dioxide.

Equipment:

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. ENK Flow Oxygen Modulator Kit</li> <li>2. Endotracheal tubes: 3.0 or 3.5 ET</li> <li>3. Providone iodine</li> <li>4. Oxygen supply @ 25 PSI</li> <li>5. Battery powered suction device</li> </ol> | <ol style="list-style-type: none"> <li>6. Yankauer Tonsil Tip Suction Catheter Non-rigid</li> <li>7. 10 ml syringe</li> <li>8. End-tidal CO2 device</li> <li>9. Tape</li> </ol> |
|---|---|

**Performance Criteria**

**Pass    Fail**

		Pass	Fail
1.	Uses universal precautions.		
2.	States: Indications and contraindications.		
3.	States: Extend the patient's neck, if not a trauma victim.		
4.	Locates and prepares insertion site at the cricothyroid membrane between the thyroid and cricoid cartilage of larnyx.		

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Supersedes:

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Approved: Signature on File  
Medical Director

Signature on File  
EMS Administrator

**TITLE: Needle Cricothyrotomy Performance Criteria - ENK Flow  
Oxygen Modulator**

EMS Policy No. 2556

Performance Criteria		Pass	Fail
5.	Stabilizes the larynx by holding the cartilage between finger.		
6.	Places 5 ml of normal saline in the syringe. Attaches the IV catheter to the syringe and inserts the needle midline at 90° angle, slowly advances the needle ½” to ¾” with plastic catheter.		
7.	Attempts to aspirate free air as needle advances. If the needle is in the correct location bubbles should be seen in the syringe. If unable to aspirate free air, back the needle up 1 cm at a time while aspirating until bubbles are seen in the syringe.		
8.	States: Once free air has been aspirated, then directs the needle toward the sternal notch, advances the catheter over the needle, then withdraws the needle and syringe.		
9.	Attaches the catheter to the ENK Flow Oxygen Modulator.		
10.	Assesses for hemorrhage or subcutaneous emphysema, which may indicate improper placement.		
11.	Directs assistant to attach distal end of ENK Flow Oxygen Modulator to oxygen source and set @ 15 – 25 LPM.		
12.	Ventilates the patient by covering the holes on the modulator for four (4) seconds.		
13.	Uncovers the holes for six (6) seconds to allow for passive exhalation.		
14.	Auscultates lungs while manually holding needle.		
15.	Secures needle hub in place by wrapping tape around the hub twice and then behind the patients neck and wrap the hub twice again after coming around the neck.		
16.	States: Monitors end-tidal CO <sub>2</sub> and/or pulse oximetry, and chest expansion.		
17.	States: Transports immediately to closest hospital for airway management.		
18.	States: Contact the Base Hospital if unable to adequately ventilate patient.		
19.	States: Document needle cricothyrotomy placement on PCR.		

Please provide comments for any item that is marked as failed: \_\_\_\_\_

\_\_\_\_\_  
Name & Signature of Evaluator

\_\_\_\_\_  
Date

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Medical Director

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EMS Administrator