PERCUTANEOUS CRICOTHYROTOMY - OPTIONAL

A. **INDICATIONS:**

1. Any clinical situation in which a definitive airway is necessary, and all other methods have failed or are otherwise not indicated:
   a. Complete airway obstruction.
   b. Foreign Body Airway Obstruction (FBAO) refractory to removal attempts.
   c. Complete airway occlusion (i.e. mass lesion).
2. Severe upper airway edema:
   a. Anaphylaxis
   b. Thermal/Inhalation injuries
   c. Caustic ingestions
   d. Angioedema
3. Epiglottitis complicated by severe respiratory compromise and/or respiratory arrest.
4. Inability to intubate:
   a. Hemorrhage
   b. Anatomic variants
   c. Massive regurgitation and/or aspiration
   d. Severe maxillofacial trauma

B. **CONTRAINDICATIONS:**

1 Absolute contraindications:
   a. Child < 12 years of age.
   b. Inability to locate landmarks required for procedure.
   c. Lack of training in surgical airway interventions.

d. Tracheal transection.

2. Relative contraindications:

a. Direct laryngeal injury.

b. Known laryngeal pathology: Stricture or tumor

C. **PREPARATION:**

1. Prepare skin using aseptic solution.

2. Position the patient in a supine position, with in-line spinal immobilization, if indicated. If cervical spine injury not suspected, neck extension will improve anatomic view.

3. Perform cricothyrotomy according to manufacturer's instructions for selected device (example: Quick Trach I®, Quick Trach II®).

4. Confirm and document tube placement by:

a. ETCO2

b. Breath sounds

c. Rising pulse oximetry

d. Other means, as needed

5. Ventilate with BVM assessing adequacy of ventilation.

6. Observe for subcutaneous air, which may indicate tracheal injury or extra-tracheal tube position.

7. Secure tube with tube ties or device.

8. Continually reassess ventilation, oxygenation, tube placement, and waveform EtCO2.

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D. **PRECAUTIONS:**

1. Success of procedure is dependent on correct identification of cricothyroid membrane.

2. Bleeding will occur, even with correct technique. Straying from the midline is dangerous and likely to cause hemorrhage.

E. **POST PROCEDURE MANAGEMENT:**

1. Assess the patient for increases in heart rate, BP, and restlessness as indicators for additional sedation and analgesia.

2. If procedure is successful and patient shows evidence of need for sedation and/or pain management to facilitate tolerating the procedure, administer:

   a. **Midazolam -** 2 mg IV/IO every five (5) minutes to a maximum dose of 10 mg. Hold for systolic BP < 90 mm/Hg.

   AND/OR

   b. **Fentanyl** - (*Sublimaze®*) 1 microgram/kilogram – up to 100 micrograms max single dose, slow IV. May repeat Fentanyl **PER MCP**.

   Note: *These medications may be given IM if IV/IO not available or becomes dislodged.*

3. If patient is still restless and/or combative, contact **Medical Command Physician** for further treatment considerations.