



# County of Santa Clara Emergency Medical Services System

*Policy #700-M05*

*Stoma and Tracheostomy Care – Adult & Pediatric*

## **STOMA AND TRACHEOSTOMY CARE – ADULT & PEDIATRIC**

**Effective** May 1, 2015  
**Replaces** June 2012  
**Review** May 1, 2021

### **Introduction**

Due to our aging population, advances in ventilator technology, and the tendency to treat more medical conditions from home, EMS personnel are increasingly more likely to encounter patients with stomas or tracheostomies in respiratory distress.

Temporary or permanent placement of a tracheostomy tube is often necessary to maintain an open airway. Patients with tracheostomy tubes or stomas should not be intubated orally. Suctioning of surgical airways is often required to attempt to clear and maintain an open airway. Administration of inhaled medications will need to be given via the stomas or tracheostomy tubes.

### **Suctioning**

#### **Equipment:**

- Appropriate sized suction catheter (Pediatrics use 8-10 F)
- Suction unit with adjustable suction capacity
- BVM with oxygen supply
- 5 cc syringe filled with sterile saline

#### **Contraindications:**

- Use of demand valve

#### **Procedure:**

- Adjust suction to 120-150 mmHg for adults; decrease suction to 80-100 mmHg for pediatrics.
- Apply sterile gloves
- Flush suction catheter with saline to lubricate tip and establish patency of suction catheter.
- Remove the T-tube if a tracheostomy patient is on humidified oxygen.
- Ventilate the patient with 100% oxygen several times.

- Insert the suction catheter into the stoma or tracheostomy opening with the suction off (the thumb hole open). The short length of the tracheostomy tube facilitates suctioning.
- Apply suction by occluding the thumb hole while slowly withdrawing the catheter in a twisting motion. Suction of a tracheostomy tube should take no longer than 5 to 7 seconds for the adult patient, and 3-4 seconds for the pediatric patient.
- If mucus plugs or thick secretions are present, the instillation of 3-5 cc of sterile saline may be helpful.
- Ventilate with 100% oxygen.
- Check breath sounds.
- Suctioning can stimulate a cough reflex. Allow the patient to cough. Be prepared to suction or catch secretions from the tracheal opening. Recheck breath sounds.

### **Albuterol Administration**

#### **Equipment:**

- **Albuterol**
- Sterile **normal saline**
- Hand-held nebulizer or other FDA approved drug delivery device
- Oxygen tubing and supply
- Additional reservoir tubing (optional)

#### **Procedure:**

- Assure clear airway. Suction if necessary.
- Assemble hand held nebulizer as for patient with intact upper respiratory tract.
- Attach trach collar to reservoir tubing.
- Connect oxygen delivery tubing to oxygen source at sufficient flow rate to produce misting.
- Fit trach collar over stoma or tracheostomy tube.
- Instruct patient to breathe slowly and deeply.
- Optional: mouthpiece may be replaced by additional reservoir tubing.

### **Stoma Intubation**

#### **Equipment:**

- Appropriate sized cuffed and uncuffed ET tubes
- BVM
- Appropriate sized suction catheters
- Oxygen supply
- Suction equipment with adjustable suction capacity

**Contraindication:**

- Use of demand valve

**Procedure:**

- Select the largest ET tube that will fit through the stoma without force. Check the cuff, unless an uncuffed tube is being used on a pediatric patient.
- Oxygenate with 100% oxygen using a BVM with the face mask fitted over the stoma. Do NOT use a demand valve.
- Wear sterile gloves. Do not use a stylet. It is not necessary to lubricate the tube.
- Suction, if necessary.
- Pass the ET tube and inflate the cuff (Note: The provider must be mindful of the depth of ET Tube placement. Passing the ET tube too deep can result in mainstem bronchus placement. The pharynx has been bypassed, so the tube will protrude from the neck several inches.
- Hold the tube in place, watch for chest rise with ventilation.
- Secure the tube and hyperventilate.
- Auscultate the lung fields. Check the neck for subcutaneous emphysema indicating false passage.

Allow no longer than 30 seconds for the procedure.

**The table below contains the required documentation elements for every patient care record when an Endotracheal Tube is utilized.**

- |                           |  |
|---------------------------|--|
| ✓ Size of ET tube         | ✓ Chest rise with ventilation            |
| ✓ Number of attempts      | ✓ Suction required                       |
| ✓ Ventilation compliance  | ✓ Any complications with intubation      |
| ✓ Capnography used        | ✓ ETCO <sub>2</sub> /Capnography reading |
| ✓ Equality of lung sounds | ✓ Method for securing ET tube            |