
STOMA AND TRACHEOSTOMY

1. INTRODUCTION:

- 1.1 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
- 1.2 **Tracheostomy tube replacement:** A dislodged tracheostomy tube should not be replaced unless the paramedic has the skill and training to do so. Training should be consistent with the material contained in "Pediatric Education for Prehospital Personnel – 2000" pages 300-302. (See #4 below for stoma intubation technique.)

2. SUCTIONING:**2.1 Equipment:**

- 2.1.1 Appropriate sized suction catheter (Pediatrics use 8-10F)
- 2.1.2 Suction unit with adjustable suction capacity
- 2.1.3 Bag-valve-mask with oxygen supply
- 2.1.4 5 mL syringe filled with sterile saline

2.2 Contraindication: Use of demand valve**2.3 Procedure:**

- 2.3.1 Adjust suction to 120 - 150 mmHg for adults; decrease suction to 80 - 100 mmHg for pediatrics
- 2.3.2 Apply sterile gloves
- 2.3.3 Flush suction catheter with saline to lubricate tip and establish patency of suction catheter
- 2.3.4 Remove the T tube if a tracheostomy patient is on humidified oxygen
- 2.3.5 Ventilate the patient with 100% oxygen several times
- 2.3.6 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. The catheter may be directed through the right or left bronchus by having the patient turn his/her head to the opposite side
- 2.3.7 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 10 seconds for the adult patient and 3-4 seconds for the pediatric patient
- 2.3.8 If mucus plugs or thick secretions are present, the instillation of 3 - 5 mL of sterile saline may be helpful
- 2.3.9 Pre-oxygenate with 100% O₂
- 2.3.10 Check breath sounds
- 2.3.11 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

3. ALBUTEROL MEDICATION ADMINISTRATION:**3.1 Equipment**

- 3.1.1 Albuterol
- 3.1.2 Sterile Normal Saline

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3.1.3 Hand Held Nebulizer

3.1.4 Oxygen tubing and supply

3.1.5 Additional reservoir tubing (optional)

3.2 Procedure:

3.2.1 Assure clear airway. Suction if necessary

3.2.2 Assemble hand held nebulizer as for patient with intact upper respiratory track

3.2.3 Attach trach collar to reservoir tubing

3.2.4 Connect oxygen delivery tubing to oxygen source at sufficient flow rate to produce misting

3.2.5 Fit trach collar over stoma or tracheostomy tube

3.2.6 Instruct patient to breathe slowly and deeply

3.2.7 Optional: Mouthpiece may be replaced by additional reservoir tubing.

4. STOMA INTUBATION:

4.1 Equipment:

4.1.1 appropriate sized cuffed and uncuffed ET tubes

4.1.2 bag-valve-mask

4.1.3 appropriate sized suction catheters

4.1.4 oxygen supply

4.1.5 suction equipment with adjustable suction capacity

4.2 Contraindication: Use of demand valve

4.3 Procedure:

4.3.1 Select the largest endotracheal tube that will fit through the stoma without force. Check the cuff, unless an uncuffed tube is being used on a pediatric patient

4.3.2 Pre-oxygenate with 100% oxygen using a bag valve mask device with the face mask fitted over the stoma. Do not use demand valve

4.3.3 Wear sterile gloves. Do not use a stylet. It is not necessary to lubricate the tube

4.3.4 Suction, if necessary

4.3.5 Pass the endotracheal tube and inflate the cuff. The pharynx has been bypassed, so the tube will protrude from the neck several inches

4.3.6 Hold the tube in place, watch for chest rise with ventilation

4.3.7 Secure the tube and ventilate with 100% O₂

4.3.8 Auscultate the lung fields. Check the neck for subcutaneous emphysema, indicating false passage

4.3.9 Allow no longer than 30 seconds for the procedure