

**INDICATIONS:** 

**CONTRAINDICATIONS:** 

## FAST RESPONSE SCHOOL OF HEALTHCARE EDUCATION **EMERGENCY MEDICAL TECHNICIAN** EMT: SPECIALTIES – LEARNING SHEET



# <u>ADVANCED AIRWAY - COMBITUBE®</u>

Student will demonstrate the ability to correctly place an **OBJECTIVE:** 

advanced airway in a patient whose airway is compromised.

The COMBITUBE® is an airway device designed for emergency or difficult intubation, providing sufficient ventilation whether the

airway is placed into the esophagus or into the trachea. Selection

of the appropriate size COMBITUBE® is based on the patient

height.

1. Responsive patients with an intact gag reflex.

2. Patients with known esophageal disease.

3. Patients who have ingested caustic substances.

4. Patient under 4 ft (122 cm) tall.

1. Airway manikin.

2. Combitube® (various sizes).

3. Syringes (100cc & 15cc).

**EQUIPMENT:** 4. Tape.

5. Bag Valve Mask

6. Oxygen delivery system

7. OPA (various sizes)

## **COMBITUBE**<sup>®</sup> Insertion Technique:

- Takes body substance isolation precautions.
- 2. Properly ventilates patient with high concentration oxygen.
- Directs assistance to pre-oxygenate the patient. 3.
- Selects appropriate sized COMBITUBE®
  - 37 Fr COMBITUBE 4ft to 6ft
  - 41 Fr COMBITUBE 5ft and above
  - Either size tube may be used for a patient between 5ft and 6ft in height.
- Prior to insertion, test cuff integrity by inflating each cuff with the prescribed volume of air. 5.
  - Inflate the proximal pharyngeal cuff (blue pilot balloon) with 100ml of air for the 41 Fr tube or 85ml of air for the 37 Fr tube.
  - Inflate the distal white esophageal cuff (white pilot balloon) with 15ml of air for the 41 Fr tube or 12ml of air for the 37 Fr tube
- Lubricate tube end with water soluble lubricant to facilitate insertion
- To direct stomach contents away from personnel, attach a fluid deflector elbow to the clear connecting lumen marked No. 2.
- In the supine patient, lift the tongue and jaw upward (tongue-jaw lift) with one hand. 8.
  - **CAUTION:** When facial trauma has resulted in sharp, broken teeth, exercise extreme caution when passing the COMBITUBE® into the mouth to prevent cuffs from tearing. If the patient has dentures, remove them.



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- 9. With the other hand, hold the COMBITUBE® so that is curves in the same direction as the natural curvature of the pharynx. Maintain a mid-line position of the COMBITUBE®. Insert the tip into the mouth, advance along the tongue in a downward curved movement until the teeth or alveolar ridges lie between the two printed bands.
- 10. While continuing to hold COMBITUBE<sup>®</sup>, Inflate #1 blue pilot balloon. The large latex cuff will fill and may cause the COMBITUBE<sup>®</sup> to move slightly from the patient's mouth. Additional air may be added to the cuff if an inadequate seal is detected during ventilation.
  - 100ml of air for the 41 Fr tube
  - 85ml of air for the 37 Fr tube
- 11. Inflate #2 white pilot balloon with air.
  - 15ml of air for the 41 Fr tube
  - 12ml of air for the 37 Fr tube
- 12. Begin ventilation through the longer blue connecting tube labeled No. 1. If auscultation of breath sounds in positive and auscultation of gastric insufflations is negative, continue ventilation. Confirm placement by:
  - Listen over lungs for lung sounds
  - Listen over epigastrium for epigastric sounds
  - Visualize rise and fall of chest
- 13. If auscultation of breath sounds is negative and gastric insufflation is positive, immediately begin ventilation through the shorter clear connecting tube labeled No. 2. Confirm tracheal ventilation by auscultation of lung sounds and absence of gastric sounds.
- 14. Secure device to patient and confirm that device remains properly secured to patient.

#### **CRITICAL CRITERIA**

- Did not take or verbalize BSI
- Did not initiate ventilations within 30 seconds
- Interrupted ventilations for more than 30 seconds
- Did not pre-oxygenate patient prior to placement of advanced airway
- Did not provide adequate volume per breath (MAX 2 errors/minute permissible
- Did not ventilate patient at a rate of 10-12 breaths per minute
- Does not insert the COMBITUBE<sup>®</sup> at a proper depth or at the proper place within 3 attempts
- Did not inflate all cuffs properly
- Did not remove the syringe immediately following inflation of the any cuff
- Inserted any adjunct in a manner that was dangerous to the patient
- Did not confirm, by observing for chest rise and auscultation over the epigastrium and bilaterally over each lung that the proper lumen of the device was being used to ventilate the patient
- Did not lube airway prior to insertion
- Did not properly check the COMBITUBE® prior to insertion