Combitube

Lord Fairfax EMS Council
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Combitube Training Objectives

- Give EMT-B's an alternative airway
- Standardize training on Combitubes in the Region
- Identify indications for Combitube
- Identify Contraindications for Combitube
- Practice correct Combitube Placement
In 1139 patients with CPR and Combitube placement, complications were found in 2 patients – lacerations of the anterior wall of the esophagus.

In 50 patients under general anesthesia, the tube was placed in 47 on the first attempt with a time of 12-23 seconds. The other 3 patients required withdrawal of the tube of 1 to 2 cm.
Merits of COMBITUBE

- All-in-one device
- Non invasive
- No preparations necessary
- Rapid and easy placement
- Immediate fixation
- PREVENTION OF ASPIRATION
- HIGH VENTILATORY PRESSURES
- No power supply
Indications for Use of Combitube

- Cardiac or respiratory arrest
- Unresponsive medical or trauma patients
- For ALS, unable to intubate otherwise
Contraindications for Combitube

- Intact gag reflex
- Less than 5 feet tall
- D50 or Naloxone to be used (precautionary)
- Esophageal disease
- Corrosive ingestion
Combitube

- Especially useful in
  - Difficult intubation
  - Blind intubation
  - Difficult circumstances such as narrow spaces, poor illumination, blood or vomitus in the airway.
Placement Procedure

- **Patient Preparation**
  - Trauma – stabilize neck neutral position
  - Medical – head tilt
  - Suction airway with rigid-tip catheter
  - BVM with O2, 10-15 LPM @ 20-24 ventilations per minute
  - Verify bilateral breath sounds and chest rise
Placement Procedure

- Prepare Equipment
  - Leave suction on
  - Lube distal tip of tube
Placement Procedure

- Remove the OP airway; suction as needed
- Grasp tongue and lower jaw and lift
- Insert tube along the curvature of the oropharynx to the level of printed ring on tube is aligned with the teeth
- Avoid force – you like your own vocal cords, don’t you?
Head: Neutral position

Open mouth, press away tongue
Placement Procedure

- Inflate Port #1 with 100 ml of air
- Inflate Port #2 with 15 ml of air
- Both pilot balloons must remain inflated
- Ventilate via blue tube, verify bilateral breath sounds, and, if present, continue using blue or #1 tube to ventilate
Never leave the patient unventilated for over 30 seconds.
Esophageal position

Ventilation via longer blue tube No. 1

Self-fixation behind hard palate

Active decompression
Placement Procedure

- Verify bilateral chest rise
- Verify silence over epigastrium
- Insert OP airway as bite block
- Use BVM with 10-15 LPM
- If air escapes airway, inject more air in cuffs
- Suction clear tube of emesis
Ventilation via shorter clear tube No. 2
Removing the Combitube

- The Combitube should be removed if unable to ventilate, gag reflex returns, or seal fails due to cuff tear
  - Turn patient on side and have suction ready
  - Deflate both cuffs
  - Remove airway while suctioning
  - Insert OP/NP airway as tolerated
  - Continue BVM O2 10-15 LPM
Complications

- Trauma to oropharynx, epiglottis, and cords (*prevention: gentleness*)
- Peforation of trachea or esophagus (*prevention: lubrication*)
- Emesis and aspiration (*prevention: suction*)
- Arrhythmias (*prevention: preoxygenate*)
- Increased intracerebral pressure (*prevention: assure no gag reflex*)
LFEMSC Protocol

- When – Combitube protocol effective immediately upon receiving training
- For who – All EMT’s and above
- Addition of Combitubes optional
- BLS Protocols currently being revised
Where and What to Buy

- Buy the standard adult model
- DO NOT BUY the SA (Small Adult) Model
- Not reusable
- Be sure to include water-soluble lubricant
- Will not be replaced by hospitals
- Training kits have heavier duty devices but are more expensive
Additional Combitube Information

- http://www.medradio.org/combitube/
- http://www.airwaycarnival.com/COM.htm
Questions?