COMBITUBE PLACEMENT

INDICATIONS:
- Cardiac arrest
- Respiratory arrest:
  - Unconscious.
  - No gag reflex.
  - Apnea or respiratory Rate < 6/minute.
- Greater than 4 feet in height for small adult (SA) size or greater than five feet tall for regular size.

CONTRAINDICATIONS:
- Obvious signs of death.
- Do-Not-Resuscitate orders.
- Intact gag reflex.
- Oral-facial trauma, suspected jaw fracture
- Known esophageal disease (such as cancer, varices, surgery).
- Known ingestion of caustic substance (such as lye, acid).
- Laryngectomy patient with stoma.
- Suspected foreign body airway obstruction.
- Ability to maintain oxygenation by less invasive method.

COMMENTS:
- May be able to continue CPR during insertion.
- Insertion may be attempted a maximum of three times.
- The patient should be ventilated between each attempt.
- Each attempt may take no longer than 30 seconds.
- Only one attempt per one minute cycle of CPR.
- Use ETCO₂ to assure adequate ventilation.

EQUIPMENT:
- Combitube, regular size or SA (small adult) size.
- Right angle emesis deflector, included in most Combitube kits.
- 140 mL syringe, included in most Combitube kits.
- 20 mL syringe, included in most Combitube kits.
- Suction catheter, included in most Combitube kits.
- ETCO₂ device.
- Lubricant (water soluble).
- Tube holder
- Oxygen.
- Suction.
- Stethoscope.
- Bag-valve-mask. 40L/min. resuscitator, optional.
COMBITUBE PLACEMENT

PREPARATION FOR PROCEDURE:
- Assemble all equipment.
- Inflate cuff to test for leaks. Deflate.
- Attach emesis deflector to tube #2.
- Lubricate distal tip of Combitube. Avoid lubrication contact in or near ventilation ports.
- Remove or suction any foreign materials from patient's mouth.
- Ventilate the patient with 100% oxygen prior to Combitube insertion.
- Place the head in a neutral position.

PROCEDURE:
- Grasp the lower jaw with the thumb and index finger and lift. Hold the Combitube in the other hand (with its curvature in the same direction as the natural curvature of the pharynx).
- Blindly insert the tube gently into the mouth and advance into the throat until the front teeth are between the two black rings on the tube.
- Do not force the tube. If the tube does not advance easily, redirect it or withdraw and reinsert.
- Inflate cuff #1 with 100 mL of air (85 mL for SA size).
- Inflate cuff #2 with 15 mL of air (12 mL for SA size).

VENTILATE THE PATIENT:
- Ventilate the patient with 100% O₂ by means of a bag-valve breathing device or 40 L/min resuscitator.
- Observe for bilateral rise and fall of the chest.
- Auscultate the lungs for bilaterally breath sounds and the epigastric area for absence of abdominal sounds.

SECURE AIRWAY:
- Use ET tube holder or tape to secure tube.
- Consider c-collar or other means to secure the head to minimize movement.
- Reassess the tube position each time the patient is moved, or if the tube is manipulated.
- Observe continuously for bilateral rise and fall of the chest.
- Auscultate for ventilation sounds over the lungs bilaterally and over the stomach.
- Monitor airway placement with ETCO₂ device.

DOCUMENTATION:
- Document per OC-MEDS format

EXTUBATION:
- Indications:
  - Unable to auscultate breath sounds when ventilating via tube #1 or tube #2.
  - Mechanical failure of tube.
  - Return of gag reflex.
  - Patient awakening or gagging on tube.
  - Comatose patient.
- Procedure:
  - Consider decompressing stomach if tube in esophagus, using 12 fr. catheter included in kit.
  - Suction mouth.
  - Turn patient on side. Anticipate emesis
  - Deflate cuff #1.
  - Deflate cuff #2.

Approved: [Signature]

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COMBITUBE PLACEMENT

- Remove Combitube with suction standing by.
- Monitor patient’s respiratory status and intervene as necessary.
- Provide supplemental oxygen.

PROBLEM SOLVING:

- Air leaking from mouth/nose
  - Add 20mL air to cuff #1.
  - If still leaking add additional 20 mL of air to cuff #1.
  - If still leaking, assume cuff leak and remove tube.

- Insertion too far into esophagus.
  - No chest rise or breath sounds when ventilating via tube #1.
  - Gurgling over abdomen, no chest rise or breath sounds when ventilating via tube #2.
  - Deflate cuff #1, then cuff #2, pull back 3 cm, re-inflate cuff #1, then cuff #2.

- EtCO2 and abdominal sounds may be most reliable assessments for correct placement.

- If no breath sounds or gurgling in epigastric area – **Remove Combitube tube.**
COMBITUBE PLACEMENT

COMBITUBE VENTILATION SEQUENCE:

1. Combitube Placed
2. Ventilate Using Tube #1

   - Epigastrium Quiet, Chest Rise, Lung Sounds Present
     - ETCO2 Reading above 10 mmHg
       - Esophageal Position
         - Continue Ventilation Using Tube #1
     - ETCO2 Reading below 10 mmHg
       - Trachcal Position
         - Monitor continuous ETCO2

   - Epigastrium Air Sounds, No Chest Rise, Lung Sounds Absent
     - ETCO2 Reading above 10 mmHg
       - Esophageal Position
         - Continue Ventilation Using Tube #1
     - ETCO2 Reading below 10 mmHg
       - Trachcal Position
         - Monitor continuous ETCO2

3. Documentation