

HEALTHEAST MEDICAL TRANSPORTATION  
MEDICAL OPERATIONS MANUAL

**7F3 VIDEO LARYNGOSCOPY - INTUBRITE**

**PATIENT CARE GOALS**

- Secure the airway in cases where there is inadequate breathing or the potential for the loss of a patent airway. Patients with a decreased level of consciousness (GCS of <8) necessitate the need for endotracheal intubation including cases of:
  1. Cardiac or respiratory arrest.
  2. Profound respiratory dysfunction such as in pulmonary edema, COPD, or asthma.
  3. Cerebral dysfunction caused by stroke, traumatic injury or overdose.

**PARAMEDIC**

1. Don the appropriate personal protective equipment. Gloves, face, and eye protection are the minimum required PPE.
2. Prepare the following equipment:
  - Appropriately sized ET tube (generally a 7.0 or 7.5 for women, 7.5 or 8.0 for men)<sup>1</sup>
  - Attach Intubrite blade to handle. Slide on blade protective sheath.
  - 10 mL syringe
  - Intubrite Rigid Stylet – insert into ET tube
  - Appropriately sized supraglottic airway, in case of failed intubation
  - Water based lubricant – apply to the distal tube and cuff of the ET tube
  - Suction
  - In-line capnography – attach to the monitor to allow the monitor to zero
3. Push Power-On button, confirm an SD card is loaded and there is ample battery power. Push the Record button and ensure device is recording.
4. Place patient head in a neutral position. In trauma, maintain in-line stabilization and flip open the anterior portion of the c-collar to facilitate mandibular movement and cricoid pressure.
5. With the right hand, open the patient's mouth by grasping the tongue and mandible.
6. Holding the laryngoscope in the left hand, place the blade tip in the center of the mouth and carefully insert the blade past the teeth. (see figure 1).

Figure 1



## HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

7. Follow the curve of the tongue until the ridge of the blade is at the lips. (see figure 2) Do not look at the video screen until the blade is inserted to the proper depth.

Figure 2



8. Once the blade has reached the back of the tongue, lift the blade upward and forward to expose the vocal cords. Do not change the angle of the blade when lifting as this will cause a fulcrum action on the teeth.
9. Suction the airway thoroughly. For severe secretions or emesis place the suction into the esophagus to block further flow into the hypopharynx.
10. Visualize the vocal cords. Make adjustments to depth as necessary to optimize a pathway for introduction of the ET tube. Too shallow and only the tip of the epiglottis and base of the tongue will be visualized. (see figure 3) Too close will obstruct the ET tube pathway (see figure 4). Optimal position in the vallecula. (see figure 5)

Figure 3



Figure 4



Figure 5



11. Advance the ET tube past the vocal cords. Once the tube has passed the cords, instruct a partner to remove the stylet while continuing to insert the tube. Advance the ET tube until the black line on the tube passes the vocal cords. Continue to record the procedure until the ET tube rests in the final proper position.

## HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

12. Inflate the cuff with 5-6 cc of air<sup>2</sup>.
13. While manually securing the ET tube, ventilate the patient with 100% Oxygen and confirm placement using **all** of the following methods:
  - Absence of epigastric sounds and presence of bilateral lung sounds
  - Appropriate capnography wave form is present
  - Visible chest rise is recognized
  - Condensation or fog observed inside the ET tube
14. Note the depth of the endotracheal tube at the patient's front teeth<sup>3</sup>.
15. Secure the endotracheal tube using a screw down tube holder. Tape is unacceptable unless a mechanical holder cannot be used.
16. Frequently reassess the ET tube placement especially when the patient is being moved. Visually determine chest rise and inspect for changes in the depth of the ET tube.
17. Following the intubation, the SD card is removed and replaced with a reserve card. The SD card is placed in a closable poly bag and submitted with the shift paperwork.

### DOCUMENTATION KEY POINTS

- Substantiate the need for intubation
- Preparation of patient and materials for procedure
- Use of stylet, size of ET tube
- Number of attempts and success of procedure including any complications encountered.
- Methods of confirmation of tube placement and depth of ET tube at patient's teeth.

### NOTES

<sup>1</sup> Pediatric endotracheal tube sizes can be found in the Handtevy booklet

<sup>2</sup> If a significant air leak exists after initial inflation, instill an additional 2 cc of air and recheck. Avoid over-inflation of the balloon.

<sup>3</sup> Proper depth of an ET tube can be calculated as  $\approx 3$  times the tube size. Males: 22-24cm at the teeth; Females: 21- 23cm at the teeth.

**The key to successful intubation is often related to optimal positioning of the patient and yourself. At a scene, we must adapt to uncontrollable situations and conditions. But when the situation allows, position the patient and yourself where you will have the greatest chance of success. Use the stretcher to raise the patient's head until their nose is at the level of your umbilicus. This is considered the optimal position for an easier intubation.**