7F2 DIRECT LARYNGOSCOPY

PATIENT CARE GOALS

- To secure the airway of the patient with inadequate breathing or potentially non-patent airway. A maximum of three attempts (two by any paramedic) while maintaining oxygen saturations greater than 92%.

PARAMEDIC

1. Don the appropriate personal protective equipment. Gloves and eye protection are the minimum required protection. Additionally, a facemask is required if there is a likelihood of encountering blood in the airway.
2. Prepare the following equipment:
    - Appropriately sized endotracheal tube[1] (generally a 7.0 or 7.5 for women, 7.5 or 8.0 for men)
    - Appropriately sized direct laryngoscope handle and blade
    - 10 mL syringe
    - Bougie or stylet
    - Appropriately sized supraglottic airway, in case of failed intubation
    - Water based lubricant
    - Suction
    - In-line capnography
3. Pre-oxygenate the patient.
4. Open the patient’s mouth with the right hand using a scissor technique with two fingers.
5. Holding the laryngoscope in the left hand, carefully insert the blade between the teeth and along the right side of the tongue.
6. Once the blade has reached the back of the tongue, sweep the blade and tongue to the left.
7. 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 on the teeth.
    - If using a curved Mac blade, the tip of the blade should be positioned in the vallecula (see Figure 1A, right).
    - If using a straight Miller blade, the tip of the blade should pin the epiglottis to the back (see Figure 1B, right) of the tongue.

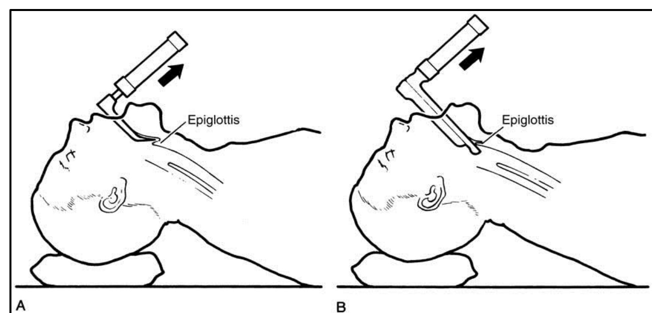


Figure 1

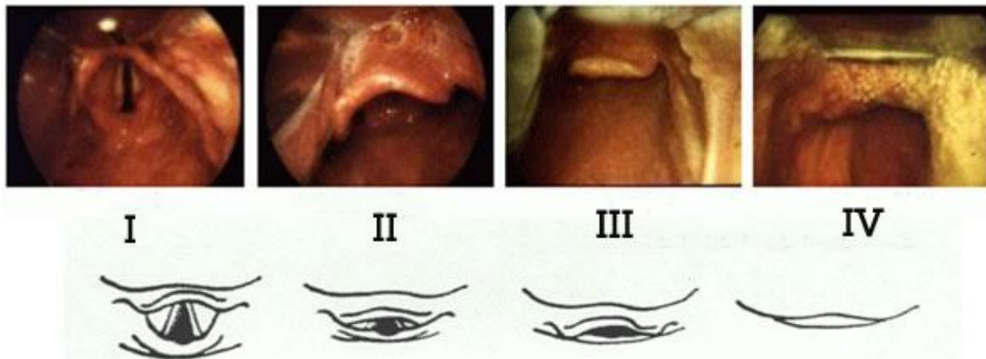
8. If using the bougie[2], hold it in the right hand with the angled end pointing upward.
    - Pass the bougie through the cords until the black line on the tube passes the vocal cords.

- While still visualizing the cords, instruct a partner to hold the end of the bougie to stabilize it while the tube is threaded onto the bougie and then advanced through the cords.

9. If using the stylet[2].
   - Once the tube passed the cords, instruct partner to remove the stylet while continuing to insert the tube until the black line on the tube passes the vocal cords.
10. Inflate the cuff with 5-6 cc of air.[3]
11. Ventilate the patient and confirm placement using **all** of the following methods:
    - Absence of epigastric sounds
    - Presence of bilateral lung sounds
    - Chest rise
    - Appropriate capnography wave form
12. Note the depth of the endotracheal tube at the patient's front teeth.
13. Secure the endotracheal tube using a commercial holder. Tape may be used to secure the tube only if a commercial holder is not available.

DOCUMENTATION KEY POINTS

- Rationale for direct laryngoscopy
- Preparation of patient and materials for procedure
- Use of bougie or stylet, size of ET tube, and size/type laryngoscope blade
- Grade view of the vocal cords



- 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

[1] Pediatric endotracheal tube sizes can be found in the Handtevy booklet.

[2] The use of a stylet or the bougie is required for all direct laryngoscopy attempts.

[3] If a significant air leak exists after initial inflation, instill an additional 2 cc of air and recheck. Avoid over-inflation of the balloon.