# Advanced Life Support Skill

## Endotracheal Tube Introducer

### Performance Objectives

The examinee will demonstrate the ability to use a tube introducer in a recognized difficult airway situation.

### Condition

The examinee will be requested to perform an endotracheal (ET) intubation with an ET tube introducer on a simulated patient who has been identified as having a difficult airway. The examinee will be told they have already attempted one intubation. Aseptic technique will be used throughout procedure. An assistant knowledgeable in the use of a BVM device will assist as instructed.

### Equipment

- Adult intubation manikin, variety of adult cuffed ET tubes size 5–9 mm, rigid suction catheter and tubing, suction device, oxygen tank with flow meter, oxygen tubing, BVM device, laryngoscope handle, straight and curved blades, stylet, 10 ml syringe, OP airway, NP airway, water soluble lubricant, tape, ET securing device, towel or small blanket, gloves and goggles.

### Performance Criteria

100% accuracy required on all items for training program skills testing.

Appropriate body substance isolation precautions must be instituted throughout the entire skill.

Maintain a clean environment for all ET equipment and sterility of ET tube.

Patient must be ventilated between attempts.

Ventilation to ventilation must be completed within 30 seconds.

### Preparation

1. Continue to take body substance isolation precautions.
2. Confirm patient is being ventilated with 100% O₂ and has an OP airway in place.
3. Assemble all necessary equipment, including tube introducer.
4. Ensure suction device is available and working.
5. Select appropriate size ET tube.
6. Attach 10ml syringe to ET tube.
7. Check cuff for leaks.
   - Inflate the cuff with 10ml.
   - Remove the syringe.
   - Feel the cuff for integrity while maintaining sterility.
   - Reattach syringe and deflate the cuff.
   - Leave the syringe with 10ml of air attached to the tube.
8. Lubricate the distal end of the ET tube with a water-soluble lubricant.
9. Attach the blade to the laryngoscope handle and ensure that the light is working.
10. Give instructions to assistant to prepare for:
    - Applying cricoid pressure.
    - Handing the suction, tube introducer and ET tube.
    - Time counts (20 seconds to see the cords, arytenoid cartilage or epiglottis, 30 seconds to place introducer and insert ET tube).
    - Attaching the CO₂ detector to Bag-Valve device.

### Procedure

1. Position the patient’s head & neck.
   - No trauma—elevate occiput 1-2” and perform head-tilt chin lift.
   - Trauma-neutral position with jaw-thrust.
2. Grasp laryngoscope with left hand.
3. Instruct assistant to stop ventilating and begin timing.
4. Open the patient’s mouth using thumb pressure on the chin and remove OP airway.
5. Apply cricoid pressure.
6. Insert the blade into the mouth using the appropriate technique of the blade being utilized and suction as needed.
7. Advance the blade while visualizing the blade tip.
8. Attempt to visualize the vocal cords and suction, as needed.
9. Have assistant hand tube introducer into laryngoscopist’s right hand.
10. Holding introducer in right hand and the angled tip upward, advance gently anterior of the arytenoid cartilage and under the epiglottis through the glottic opening (Note: If vocal cords are visualized direct introducer through the cords).

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**NAME___________________ DATE __/__/**

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**EXAMINER(S)____________________________**
ENDOTRACHEAL TUBE INTRODUCER

VERBAL TEST ITEMS: (Optional)

INDICATIONS
- Inability to visualize the vocal cords
- Inability to intubate using standard techniques

CONTRAINDICATIONS
- Not to be used in patients under 14 years of age

COMPLICATIONS
- Damage to the esophagus or trachea
- Delay in ventilations

NOTES:
Correct placement of the introducer is assumed by:
- Direct visualization of the device going through the vocal cords; or
- Resistance is met at the carina; or
- The tip is felt vibrating against the tracheal rings

Assistant should be an individual who has been trained ahead of time due to the complexity of steps

11. Insert the introducer until it can no longer be advanced or vibrations are felt
   - If no resistance is encountered and the entire length of the introducer is inserted, the device is in the esophagus. Remove and redirect.
   - If resistance is met, slowly withdraw introducer while feeling for vibrations from the tracheal rings. “washboard” effect
   - Withdrawal until the thick black line is at the lip line

12. While continuing to visualize the introducer and maintaining an open airway with laryngoscope, the laryngoscopist directs the assistant to place the ET tube over the introducer and advance the tube until the laryngoscopist directs them to stop.

13. The laryngoscopist takes control of the tube while the assistant helps stabilize the introducer.

14. The laryngoscopist advances the tube until the cuff is in the oropharynx and under the epiglottis (Note: If resistance is met rotate the ET tube 90 degrees counterclockwise and attempt to advance)

15. The tube should be advanced until:
   - It is between 21-23 cm at the lip line (male); or
   - It is between 19-22 cm at the lip line (female)

16. While maintaining control of the tube remove the laryngoscope

17. Obtain a “scissors” grip on the ET tube

18. Inflate cuff with 10ml of air and remove syringe

19. Direct assistant to remove the tube introducer

20. Place CO₂ detector to Bag-Valve device

21. Follow protocols for tube placement verification

22. Secure tube

23. Reassess patient

24. Dispose of equipment following local/departmental protocols