

Airway management: *generic problems & issues*



**FROM: HUMAN FACTORS IN COMPLEX
AIRWAY MANAGEMENT, GLEESON, ET
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(The errors, mistakes, “I forgot(s),” rushed slip-ups & miscalculations)

1. Check equipment / position patient



- Adverse / poor patient position (or location)
- Inadequate nasal patency
- Illumination not satisfactory
- Monitor image not satisfactory
- Wrong size tube wrong type of tube

2. Prepare nares, oxygenate, start sedation



- Omit supplemental oxygen
- Increasing airway obstruction (possible LA effect?)
- Apnea (excess sedation?)
- Respiratory depression (excess sedation?)

3. Mount tracheal tube on f/o scope (if applicable)



- Tube not loaded
- Tube loaded via Murphy eye
- Tube / f/o scope not lubricated (interface)
- Omitted anti-fog solution

4. Negotiate f/o scope through nose (if applicable)



- Fogging of lens
- Secretions obscure view
- Inadequate nasal patency
- Traumatic bleeding obscures view
- Friable tissue obscures view (polyp)
- Disorientation
- Failure to traverse nose
- Nasal congestion / hyperemia
- Naso-pharyngeal obstruction (adenoids, tonsils, tumor)

5. Explore pharynx, larynx, & trachea



- Epiglottis obscures glottis
- View becomes 'red' (blood) or 'white' (secretions)
- Prolapsing pharyngeal wall obscures view
- Excessive vocal cord movement
- Excessive reflex glottic closure
- Unexpected gastric reflux
- Airway distortion from cellulitis

6. Position f/o scope in trachea



- Carina can be seen
- Other structures not identified

7. Advance tracheal tube over f/o scope into trachea



- Tube not loaded, incorrectly loaded
- Tube diameter too large to enter nostril
- Tube / f/o scope step problem
- Tube hold up: nostril, epiglottis, arytenoids, subglottic (tracheal ring)
- Inadvertent removal of f/o scope from trachea

8. Confirm tube position relative to carina



- Cannot identify carina
- Patient distress due to iatrogenic total airway obstruction

9. Remove f/o scope leaving tracheal tube



- **Difficult f/o scope removal (no lubrication)**

10. Re-confirm tube placement with CO₂ / bag movement



- No capnograph trace
- No ventilation
- Difficult ventilation

- Additional (LML)
- Tube position changed
- Tube blockage

11. Induce anesthesia & inflate cuff



- Inadvertent loss of iv access

12. Confirm bilateral lung ventilation



- Ruptured tube cuff
- Endobronchial intubation
- Difficult ventilation