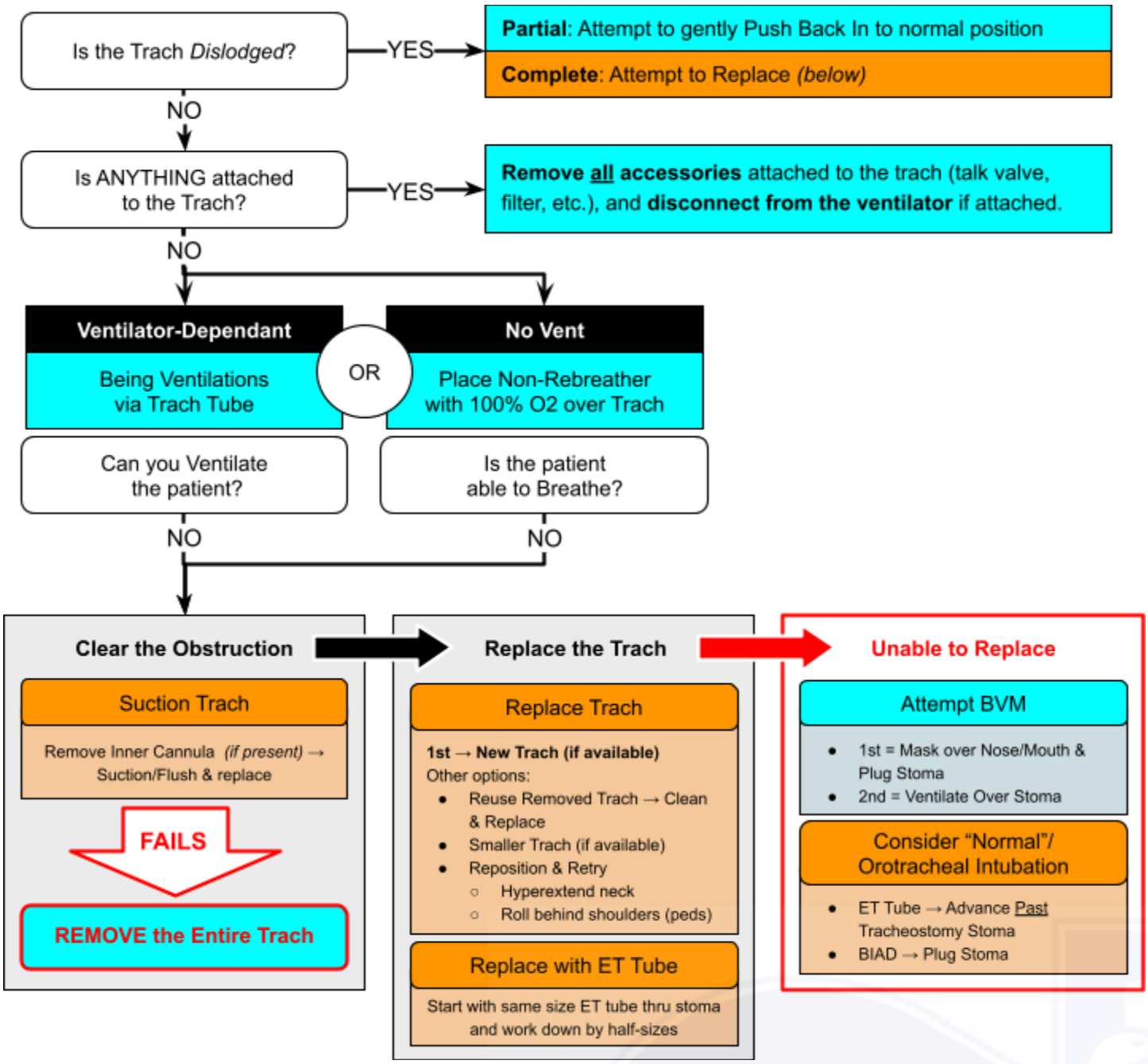
A-05 TRACHEOSTOMY MANAGEMENT

First Responder
EMT
AEMT
Paramedic



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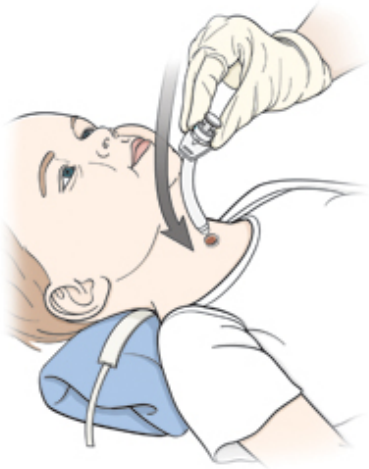
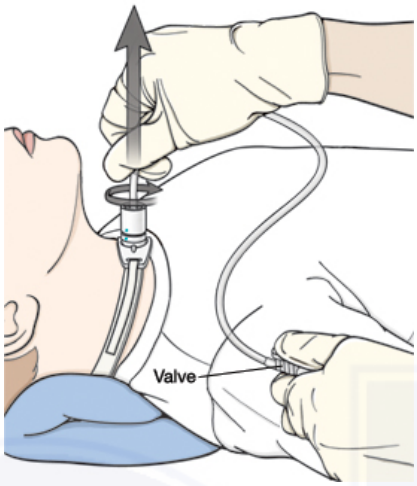
Procedure: Tracheostomy Tube Replacement

- Position the patient:
  - Hyperextend neck (if possible)
  - **Pediatrics: place a roll under the shoulders**
- Open a new Trach Tube (if available) and at least one backup airway (smaller trach, ET Tube, etc.)
- Make sure the obturator (i.e. stylet) is in place
- Lubricate the tube
- **Start at a 90-degree angle into the stoma and rotate the tube inferiorly into the trachea.**
- Pull obturator, place the inner cannula into the trach and ventilate
- Secure as appropriate

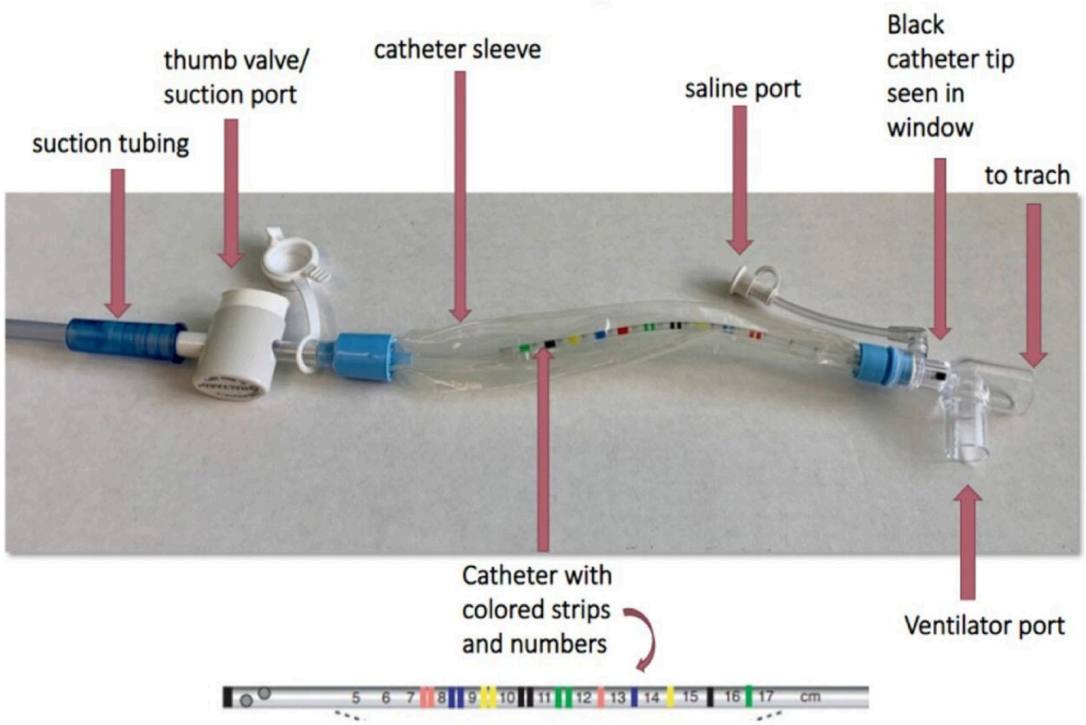


Procedure: Clearing Secretions

- Suction Trach in Place →
  - Suction the **length of the tube only** (do not deep suction)
    - **Depth for pediatrics (color coded, *see below)* is noted on the patients spec sheet**
  - No more than 10-15 seconds
  - Twirl while removing
  - Consider instilling saline if not successful initially
- If unable to suction (hard/thick secretions) →
  - Remove the inner cannula (clean, suction and/or flush with saline)
  - Remove the entire trach, clean as above and replace (as above)



Pediatric Suction Catheter (Example)



Pediatric "Go Bag"

Contains:

- Trach Instruction/Infosheet
- BVM & Back up mask
- Trach replacement & 1 size smaller
- Trach ties
- Suction
- Lubricant
- Gloves

Pediatric Trach Infosheet (Example)

Weight (kg):_____

Trach:

Brand:_____ Length:_____

Size: _____ ☐ Cuffed ☐ Uncuffed

Cuff volume: _____ mL air water

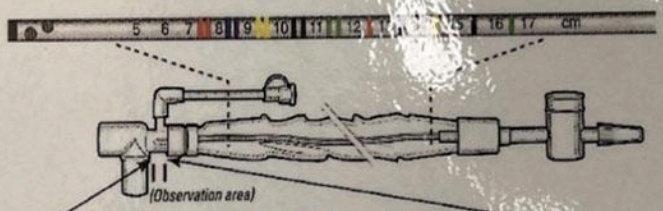
Inline suction
Suction catheter size:_____Fr

Inline suction depth:_____cm

Cath suction depth:
Internal length of trach tube _____cm
Measure and add distance from patient's neckline to tip of trach tube +_____cm
add 0.5 cm +_____cm
Cath suction depth Total _____cm

Inline suction - Trach

Circle the suction depth on the catheter picture for reference.
Color bands allow easier visualization of suction depth to prevent suction procedures.



To Determine Suction Depth
Internal length of Trach Tube (from tube box, convert to cm) _____cm
Measure and add distance from patient neckline to observation area +_____cm
(add 0.5 cm length if suction below end of Trach Tube is desired) (+_____cm)
Equals suction depth: Total _____cm

IF TRACH COMES OUT:

Replace with bedside emergency Trach → Unsuccessful, attempt with next size smaller → Unsuccessful, Call Code Blue in Hospital Call 911 at Home

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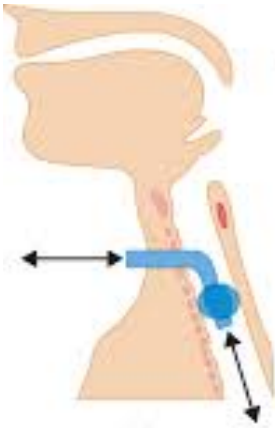
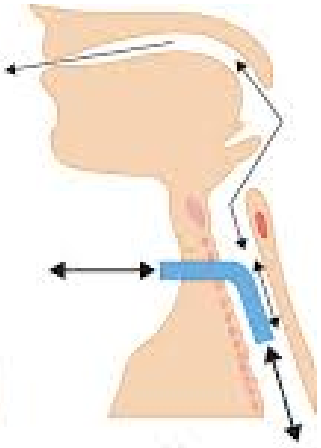
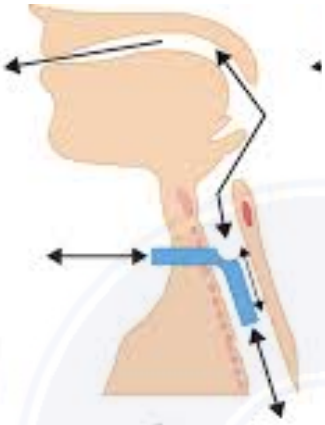
Trach Anatomy (Airflow)

Cuffed ● Balloon blocks airflow up the trachea to the vocal cords/oropharynx. ● **All ventilation is dependant on a patent tube**		
Uncuffed (or cuff deflated) ● Closed tube to neck, but some air can escape around the tube to the vocal cords/oropharynx. ● If the tube becomes clogged, may have enough air exchange to ventilate thru nose/mouth if not obstructed. ● **Cannot provide significant positive pressure ventilation** → may need to be replaced with a cuffed tube.		
Fenestrated ● Separate hole in trach allows for easy air passage to vocal cords/oropharynx. ● **Allows the patient to talk** when the trach hole is covered.		

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Trach Anatomy (Structure)

- Outer cannula (left
  - Generally hard plastic
  - May have a balloon (cuff) similar to an ET tube, as well as an inflation port.
  - Smaller (pediatric) trachs may be soft(er)/flexible
- Inner cannula (center)
  - Generally only used in adults (larger trachs).
  - May need to be removed/cleaned to improve partial or full obstructions.
- Stylet/Obturator (far right)
  - Allows for easier insertion.

Trach Accessories/Attachments

Filters

- Filters air and keeps moisture in place (humidifies).
- **May get clogged with secretions**

Passy-Muir Valve (i.e. “Talk Valve”)

- **One-way valve** that allows inspiration (air in) & forces air out (expiration) thru vocal cords.
- **Do not use with a cuffed tube** (or while cuff is blown up)

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KEY POINTS:

- Who may need a tracheostomy?
  - Anatomical Malformations (tracheal stenosis, vocal cord paralysis, congenital craniofacial abnormality, severe facial trauma/surgery or oropharyngeal mass, etc.)
  - Prolonged Ventilation (chronic lung problems, congenital cardiac abnormalities, spinal cord injury/neurologic disease)
  - Pulmonary secretion clearing (cerebral palsy, cystic fibrosis, etc.)

QI Review Parameters:

1.