WVU Medicine

LOSS OF AIRWAY GUIDELINES

Tracheostomy tube accidentally comes out of trachea

New tracheostomies (less than seven days since tracheostomy performed)

- Patient becomes acutely hypoxic, increased pressure to ventilate, unable to detect air movement
- Call Code. If in ICU, follow communication plan as outlined in "unplanned removal or loss of artificial airway communication tree"
- Call for help – Senior surgical residents, anesthesia, respiratory care, faculty
- Suction tracheostomy tube – remember suction catheter can go down a significant distance into the mediastinum suggesting that you are in the trachea and breath sounds are usually normal.
- Remove air from balloon
- Remove inner cannula then suction
- Remove tracheostomy tube sutures – those tying tracheostomy tube to skin
- Remove tracheostomy tube
- Hyperextend the patient's neck (unless cervical spine not clear)
- Administer oxygen to tracheostomy site
- Begin face mask ventilation using resuscitation bag. (Exception: total laryngectomy).
- Perform endotracheal tube intubation
- Begin acquiring equipment
  - Crash cart
  - Tracheotomy tube tray
  - Tracheostomy and endotracheal tube
  - Light
- Replace tracheostomy tube after help and equipment have arrived (This may be in the operating room)
- May need to place endotracheal tube into tracheostomy temporarily

Mature tracheostomies – may be able to replace. If any trouble see below

Technique

- Preoxygenate with 100% for several minutes
- Extend the neck if the Cervical Spine is cleared
- Prepare new tracheostomy tube
  - Check balloon
  - Milk balloon back and remove all air
  - Ensure obturator is in tracheostomy tube
  - Lubricate balloon with jelly
- Suction old tracheostomy tube with suction catheter
- Remove skin sutures that held old tracheostomy tube if still present
- Make sure labeled retention sutures are not crossed – the retention sutures are used to open tracheotomy incision in case tracheostomy tube has slipped out – do not pull hard on the sutures
- Place new tracheostomy tube through stoma and inflate balloon
- Remove obturator and place inner cannula
- Confirm breath sounds and oxygen saturation
- Secure in neutral position

Difficult tracheostomy tube change: If tracheostomy tube does NOT go in easily/well – STOP

1. Reassess
2. Do NOT forcefully or blindly insert tracheostomy tube into stoma
3. Appropriate steps include:
   a. Call for help
   b. Deliver oxygen to tracheostomy opening
   c. Consider endotracheal intubation orally
   d. Consider passing endotracheal tube exchange catheter If tracheotomy incision opening can be visualized

Consider established establish an airway using via use of bronchoscope

Elective tracheostomy tube change, downsizing, and maintenance

Criteria to downsize tracheostomy tube

- Mental status appropriate to protect airway
- Secretions less than every two hours
- No active pneumonia
- No aspiration of feedings
- Consider downsizing from 8 to 6 as soon as clinically appropriate.
- Consider using uncuffed tube when clinically indicated

Seven days post placement

- Cut sutures
- Clean and change inner cannula
- Replace trach securement device
- Should not change tracheostomy tube before seven days unless emergency e.g. plugged, broken balloon, tube has slipped out, etc

First tracheostomy tube change ** if problems or difficult airway expected consider location for trach change be ICU or OR

1. First first change should be performed in 14 days post placement
2. There should be two persons present at the tracheostomy tube change, one of whom must be an MD.
3. Who should do the first tracheostomy tube change
   – Faculty or Senior Resident/fellow with Faculty readily available
   – Senior resident/fellow should have performed tracheostomy change with faculty before doing change by himself or teaching junior resident

Personnel and equipment

- Respiratory therapist and nurse (RN or LPN) by bedside
- Tracheotomy tray near bedside (or nearby)
- Rapid sequence intubation tray at bedside
- Replacement tracheostomy tube
- Smaller size tracheostomy tube by bedside e.g. if tracheostomy tube size is 8.0 then have size 6.0 by bedside
- Endotracheal Tube, stylet, and intubation equipment by bedside –
  – Crash cart by door if on the floor
  – Intubation tray if in the ICU
- Tracheostomy tube obturator by bedside
- New Velcro tracheostomy tube tie by bedside
- Resuscitation bag by bedside
- Make sure there is adequate lighting
- Suction and suction catheter
- Scissors at bedside to remove skin sutures
- Oxygen source and continuous pulse oximetry

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Consider establishing airway using via use of bronchoscope