

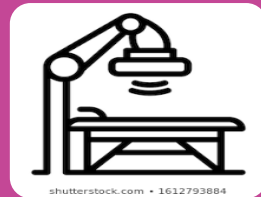
Tracheostomy Guideline for COVID-19 Patients

Planning: Days to Weeks Prior to Procedure



PPE

- Review guidance on high-risk procedures
- ALL participants must wear full PPE
- Consider additional protection -e.g. Stryker Hood, powered air purifying respirator (PAPR)



Place

- Ideally to be in a negative pressure isolation room
- if only option is the OR:
 - Antechamber created to don/doff PPE and for runner



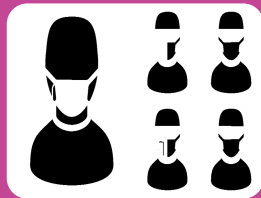
Patient

- Review indication for tracheostomy with ICU clinicians; specifically timing and prognosis.



Equipment

- Pre-prepare tracheostomy sets in grab bag in designated clean area
- **Only use cuffed, non-fenestrated tracheostomy sizes**
- Establish a system to record what has been used for restocking



COVID Airway Team

- Consider forming a core COVID airway team and run simulations to help facilitate efficiency
- Suggested team make up: thoracic/general surgeon, ENT, anesthesia, ICU Intensivist, Nurse and RT



When

- Criteria: On mechanical ventilation > 14 - 21 days, FiO2 <50%, PEEP < 8-10, PIP <30, INR <1.5, PLT >100k
- Plan ICU location or operating room with experienced team

PREPARATION: Day of Procedure



Check

- Ensure PPE is available for all staff
- Check tracheostomy grab bag for contents: tracheostomy set, **cuffed non-fenestrated** tubes of appropriate sizes and HME with viral filter
- Confirm designated staff are available and prepared



Confirm

- Confirm and document indication and appropriateness for tracheostomy
- Ensure the patient is relatively stable and will tolerate procedure



Briefing

- Includes but not limited to :
- Airway management steps generic to tracheostomy
- Steps particular to COVID patient
- Confirm full paralysis throughout to reduce risk of cough



Equipment

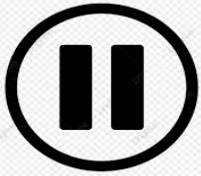
- Don PPE and perform "buddy check"
- Lay out tracheostomy equipment - attach syringe to trach balloon
- Consider preloading the HME onto the inner tube
- Ensure only closed in-line suction is used
- Use surgical ties and avoid electrocautery - cold cautery acceptable



Patient

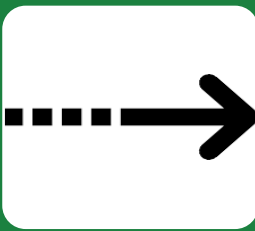
- Confirm readiness with the team prior to entering patient room
- If being performed in the OR - **NOW** call for the patient
- Perform the pre-procedure pause outside the patient room

PERFORMANCE: Once Trachea is Exposed



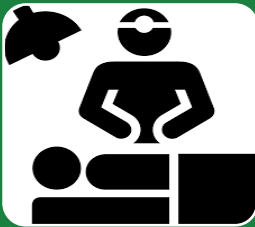
Pause

- Inform anesthesia / provider of readiness to open trachea
- Confirm paralysis
- Pre-oxygenate --> stop ventilation --> turn off flows
- Allow time for passive expiration



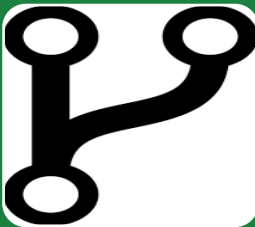
Advance

- Consider clamping ETT --> advance cuff beyond proposed tracheal window--> hyperinflate cuff and re-establish oxygenation
- When adequately oxygenated communicate clearly , cease ventilation prior to opening trachea



Tracheal Window

- Create tracheal window taking care to avoid the ETT cuff
- Turn off flows with open APL valve - allow passive expiration -consider clamping ETT - Deflate ETT cuff - draw back proximal to the tracheal window under direct vision
- Ensure window is sufficient size & insert cuffed, non-fenestrated tracheal tube



Circuit

- Immediately inflate tracheostomy tube cuff
- Replace introducer with non-fenestrated inner tube and HME
- Promptly attach circuit and resume ventilation



Confirm Position

- Confirm position of the tube with HOB elevated 30 degrees
- Confirm position with end-tidal CO2 device
- Withdrawal ETT tube



Secure

- Secure tube with sutures and trach tape and appropriate dressing
- Doff PPE in appropriate area
- Dispose of equipment per facility guidelines
- In OR - Decontaminate theater using local infection control guidance

POST-PROCEDURE: ICU and Beyond



First Week

- Exercise extreme care in transferring
- One dedicated team member allocated to holding trach tube with movement
- Humidified oxygen to be avoided if possible, HME only



Nursing/RT Care

- Use only in line closed suction circuits at all times
- Periodic check of cuff pressures
- Cuff should NOT be deflated w/o considering risks to patient and staff
- Do not change dressings unless frank signs of infection



First Tube Change

- Delay first tube change until COVID testing is negative
- Full PPE
- Perform same sequence of pause in ventilation with flows off before deflating cuff and inserting new tube and with re-inflation of cuff and reconnection of circuit



ICU Step Down

- Ideally place patient on a dedicated COVID ward with trained nursing staff
- Cuffed non-fenestrated tube to be used until the patient is confirmed COVID negative
- Subsequent planned tube changes at 30-day intervals



De-Cannulation

- If patient is confirmed COVID negative and is to be moved to a COVID negative floor, then consider trials of cuff deflation
- Readiness for de-cannulation should be assessed by the team (MD, RN, RT)