



Rush University Medical Center
COVID-19 Tracheostomy Protocol - FINAL
Last Updated 4/1/2020

Background – Due to the COVID-19 Pandemic, a dedicated Tracheostomy protocol is being implemented for the purposes of a standardized care pathway, maintenance of infection control, provider safety, and optimization of patient care outcomes.

Protocol Development – Coordination and development of the protocol done after consultation with representatives from Otolaryngology, General Surgery, Critical Care, Anesthesia, Infection Control, OR Nursing, and Respiratory Therapy. Additional literature review of SARS experience conducted by team. Unpublished data from Wuhan hospitals reviewed.

Indications for Surgery – Currently there is no available evidence to support early or aggressive tracheostomy for COVID-19 patients. In fact, early anecdotal evidence from China demonstrates a very low rate of tracheostomy overall in COVID patients. Concerns about the procedure center around intraoperative and postoperative infection control, care provider safety, post-hospital care setting availability (LTAC), patient safety related to prone positioning, and ultimate effect on mortality outcomes. Therefore, initial protocols will focus on limited consideration of tracheostomy after careful individual patient consideration.

- Mechanical ventilation >14-21d
- FiO₂ <50%
- PEEP <8-10
- PIP < 30
- Not requiring high-dose vasoactive agent, and/or more than 1 vasopressor
- Absence of uncontrolled dysrhythmia
- Absence of severe acidosis
- INR < 1.5
- Platelets > 100k
- No anatomic contraindications
- Availability of recommended PPE equipment
- COVID-19 PCR testing that is negative x 2 before surgery. If testing positive, conference between surgical and medical team will discuss risks and benefits of surgery taking into account all medical, safety and infection control factors.

Setting/Technique

- Initial technique consideration will be to perform Percutaneous Tracheostomy.
- If contraindicated medically or due to other limitations, will perform Open Technique.
- Bedside technique vs. Operating Room after consideration of medical status including COVID testing status.

Staff (Bedside) – Percutaneous tracheostomy

- Attending Physician
- Resident/Fellow Physician
- Unit Nurse inside Room
- Clean RT inside Room for postop care

Staff (Bedside) – open tracheostomy

- Anesthesia
- Attending Surgeon
- Resident Surgeon
- OR Scrub Nurse in room
- Clean Nurse unit nurse outside Room
- Clean RT outside Room for postop care

Staff (OR) – open tracheostomy

- Anesthesia
- Attending Surgeon
- Resident Surgeon
- OR Scrub Nurse in room
- Circulating RN in room

Preop preparation

- Overhead lights and portable headlight inside hood
- Neck extension with shoulder roll
- Paralyzed, 100% FiO₂
- Inject site with 1% Lidocaine w/ 1:100,000 Epinephrine
- Neck – sterile prep with face exposed for ETT access
- Enhanced PPE – surgical gowns, double gloves, PAPR hoods, shoe covers
- Tracheostomy Tray, Bovie machine and equipment, OR pack

Intraoperative considerations

- FiO₂ under 30% when incising trachea
- Ventilation held when cuff is deflated or when incising trachea
- Consider Steri (1010) drape coverage when incising trachea

Postop respiratory care

- HME > T-piece > trach collar
- T-piece preferred over trach collar
- Inline suction only
- Maintain cuff pressure 25-30 cmH₂O
- Minimize bronchial hygiene – no hypersal
- No prone position

Transfers from Outside Hospitals

- Transfers with “Reason for Transfer – Tracheostomy in COVID-19” will only be accepted from outside hospitals if they meet the Indications for Surgery after consultation with the surgeon and ICU attending.