



## TRACHEOSTOMY REVIEW AND MANAGEMENT SERVICE (TRAMS) CLINICAL PROCEDURE

### SUCTIONING VIA THE TRACHEOSTOMY

#### Staff this document applies to:

- Medical staff, Nurses, Physiotherapists and Physiotherapy Assistants on all campuses including ICU
- Only those individuals who have received training in suctioning should perform this procedure.

#### Related Austin Health policies, procedures or guidelines:

- [Tracheostomy - Mandatory Equipment & Emergency Tracheostomy Management Poster](#)
- [Recognising & Clearing a Blocked Tracheostomy Tube](#)
- [Tracheostomy Cuff Management](#)
- [Use of the Suctionaid Tracheostomy Tube](#)
- [Aseptic Technique](#)
- [Tracheostomy Learning Package – Suctioning](#) (Austin staff access via ATLAS)

#### Purpose:

- To describe the clinical procedure of suctioning a tracheostomy tube
- Suctioning is performed to remove secretions from the airways in order to maintain adequate ventilation for gas exchange and ensure tracheostomy tube patency
- To ensure that the patient with a tracheostomy tube will have a patent airway and adequate clearance of pulmonary secretions. The nurse caring for the patient will assess the patency of the tracheostomy at commencement of each shift and throughout the shift.

#### Clinical Alert:

- Passing a catheter through the tracheostomy tube can be used to assess tube patency. If resistance is encountered when passing the suction catheter or if the inner surface of the tracheostomy is roughened due to collection of dried secretions, the tube **MUST** be cleared as a matter of urgency.
- Hypoxia and arrhythmias are a potential complication of tracheal suctioning. Tetraplegic patients may suffer bradycardia due to vagal stimulation.
- Excessive suctioning can cause trauma to the trachea
- Fenestrated tubes: When suctioning a fenestrated tube, ensure non-fenestrated inner cannula is in situ

## Definition:

- Removal of secretions from the trachea and tracheostomy tube using a suction catheter connected to a suction source.
- Suctioning is used when patients are unable to clear their secretions independently by coughing or huffing
- Open suction technique is used in most areas of Austin Health. Closed suction technique is used predominantly in ICU

## Equipment:

- Routine tracheostomy personal protective equipment (PPE)
  - Clean gloves
  - Safety shield, goggles or glasses
  - Disposable apron
  - Surgical mask
- Tap water for rinsing suction tubing only. Suction catheters should NOT be rinsed.
- 10ml syringe
- Yankuer sucker
- Waste disposal bag
- Suction source with adequate/operational suction
- **Open technique:** Suction catheters standard size 12FG. If a mini-tracheostomy tube is in situ, use size 8FG or 10FG catheters.
- **Closed technique:** Purpose made device allowing repeated suction with one single catheter enclosed in a plastic sheath.  
e.g. Covidien DAR™ Tracheostomy Length (12Fr) REF 444SP01312 (or comparable product)

## Procedure:

**Open suctioning technique:** (see also [e-learning package](#) for video demonstration. Austin staff access eLearning via ATLAS)

- Explain procedure, consider privacy and inform patient when you are about to begin suctioning
- Ensure suction unit is turned on and at an appropriate pressure level
- Ensure patient is well oxygenated, pre-oxygenate if necessary
- Debrief and don routine tracheostomy PPE (protective eyewear or face shield, surgical mask, disposable apron and gloves)
- Open suction catheter packet to expose adaptor only. Attach to suction tubing
- Put additional clean glove on dominant hand
- Remove catheter from packaging. Note: there are various techniques for maintaining a **clean technique** with suction. The important principle is that the glove that touches the sterile catheter **MUST NOT** be contaminated by contact with any other surface.
- Introduce catheter into tracheostomy tube using dominant clean hand without applying suction. If the patient is invasively ventilated, allow the ventilator to deliver a breath prior to introducing suction catheter. Gently insert catheter until cough reflex is stimulated and/or gentle resistance is felt.

- Withdraw catheter slightly and apply suction by placing the thumb over the suction port. Continue to withdraw catheter with suction applied
- The procedure should not take longer than 10 seconds
- The same suction catheter may be inserted a second time when there are copious secretions, provided that it has not come into contact with exterior contaminants (e.g. skin or bedclothes), and is not coated with or blocked by sputum. Do NOT rinse the catheter between suction passes.
- When the patient's airway is clear of secretions, disconnect the suction catheter and discard suction catheter and gloves into the waste bag.
- Ensure the oxygen and humidification source replaced over the tracheostomy once suctioning is completed.
- Rinse the suction tubing with water

#### **Closed suctioning technique:**

- This technique is performed with a purpose made device allowing repeated suction with one single catheter enclosed in a plastic sheath in patients who are invasively ventilated.  
e.g. Covidien DAR™ Tracheostomy Length (12Fr) REF 444SP01312 (or comparable product)
- This is a 12 FG catheter enclosed in an outer sheath for insertion and withdrawal many times over a limited no. of days (e.g. 3 days) before the device is changed to minimise colonisation of bacteria. The connection to the tracheostomy is via a standard connection with an inner lumen to allow swivel action (the device can rotate around the connection point).
- High-pressure suction is used, and the device includes the ability to lavage the airway (during suction technique) or suction solution through the catheter (after suction), cleaning sections out of the catheter.
- High-pressure suction can remain connected to the device for immediate use as an ON - OFF valve is operated to initiate suction. This valve can be locked OFF for safety in this situation.
- The suction catheter is marked to prevent withdrawing the catheter outside the swivel connector, as this would cause a loss of a sealed airway during positive pressure ventilation.
- Usual hand hygiene is performed prior to this procedure, but gloves and additional PPE are not required

#### **Post procedure:**

- Perform hand hygiene
- Reassure patient, assess oxygenation and breathing.
- Evaluate nature and volume of secretions.
- Document nature and amount of secretions and any adverse effects

#### **Author/Contributors:**

Document Owner: Tanis Cameron, Manager TRAMS

Contributor(s) Document Writer: Jack Ross and Caroline Chao (Senior Clinician Physiotherapists, TRAMS)  
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## Legislation/References/Supporting Documents:

Agency for Clinical Innovation (2013), Care of Adult Patients in Acute Care Facilities with a Tracheostomy: Clinical Practice Guideline

[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0005/181454/ACI\\_Tracheostomy\\_CPG.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0005/181454/ACI_Tracheostomy_CPG.pdf)

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National Tracheostomy Safety Project:

<http://www.tracheostomy.org.uk/healthcare-staff/basic-care/suctioning>

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## Authorised/endorsed by:

Tracheostomy Policy and Procedure Review Committee

Clinical Nursing Standards Committee

## Primary Person/Department Responsible for Document:

Tanis Cameron, Manager TRAMS