RECOGNISING AND CLEARING A BLOCKED TRACHEOSTOMY TUBE

Staff this document applies to:

- Medical Staff, Nurses, Physiotherapists and Speech Pathologists on all campuses
- Does not apply to ICU staff or to staff working in the community

Who is authorised to perform this procedure:

Medical staff, Nurses and Physiotherapists

State any related Austin Health policies, procedures or guidelines:

- Humidification of Inspired Gases in Patients with Tracheostomy
- Changing a Tracheostomy Tube
- Suctioning via the Tracheostomy
- Tracheostomy Cuff Release, Deflation & Reinflation
- Emergency Tracheostomy Management poster
- Patient Identification

Definition:

- A partially or completely blocked tracheostomy tube is one in which airway patency is compromised, usually by
  - dried secretions
  - blood clots
  - a displaced over-inflated cuff or
  - the tracheal wall if the tube is malpositioned
- Partial blockage is indicated by resistance to the passage of the suction catheter over the first 10 cm or when the inside of the tracheostomy tube feels roughened by accumulated dried secretions. A completely blocked tube is indicated by the inability to pass suction catheter down the tracheostomy tube.
- A minitracheostomy is used as a suctioning port and is not an airway. This procedure is not applicable to minitracheostomy.

Expected Outcome:

- Maintaining a patent tracheostomy tube is vital to the safety of the patient
- A patient who has a tracheostomy tube that is partially or completely blocked will have the airway cleared or re-established quickly and safely.

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Clinical Alert:

- A completely blocked tracheostomy tube is an emergency, and can result in respiratory arrest or death. Call a Code Blue.
- A partially blocked tracheostomy tube can quickly progress to becoming completely blocked, and should be regarded as an impending emergency.
- Respiratory distress, increased work of breathing, or increased airway pressures in ventilated patients, should be assumed to be due to partial tube blockage until proven otherwise.
- [Emergency Tracheostomy Management poster]

Equipment:

- Suction source.
- Suction catheters: standard size 12 should always be available, (Size 14 may be requested at the discretion of the physiotherapist.)
- Tracheostomy tube of the same size and 1 size smaller.
- Vials of sterile normal saline.
- 10ml syringes.
- Non sterile gloves.
- Cuff manometer (contact TRAMS on pager 1291 to arrange loan).
- Stethoscope (optional).
- Air viva with face mask, tracheostomy connector
- Pulse oximeter.

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Procedure: If Tube is Completely Blocked:

- **Completely Blocked Tracheostomy Tube**
  - If an inner cannula is present, remove it
  - **Does the patient now have a clear airway?**
    - **No**
      - Deflate the cuff so that the patient can breathe around the tube
    - **Yes**
      - Clean and replace the inner cannula
  - **Is the patient ventilated?**
    - **Yes**
      - Call a Code Blue and ventilate via the nose and mouth using an AirViro with mask attachment.
    - **No**
      - Call a code blue and oxygenate via the nose/mouth in order to maintain oxygen saturations within acceptable limits

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Procedure: If tube is partially blocked:

**Partially blocked tracheostomy tube (TT)**
In the ventilated or non-ventilated patient

- Remove inner cannula if present

  - Clean and replace inner cannula
    - Yes
      - Patency restored?
        - Yes
          - Provide supplemental oxygen
            - Saline Lavage: Instil 5mls N/Saline into the TT and suction immediately
            - Patency restored?
              - Yes
                - Deflate cuff so the patient can breathe around TT. Escalate to involve a senior clinician eg TRAMS, Senior Physio or Senior Nurse
                - Alert: Cuff deflation in a ventilated patient will lead to leakage of ventilation
              - No
                - Reinflate cuff and address humidification requirements to prevent recurrence
                - Patency restored?
                  - Yes
                    - Ensure correct position of TT and reinflate cuff
                  - No
                    - Deflate cuff and apply oxygen via face + TT
                    - Patency restored?
                      - Yes
                        - Ensure correct TT position maintained
                      - No
                        - Change TT
                          - If inserted <7 days ago will require ICU – (Call MET)
                          - If inserted >7 days ago – trained staff can insert new TT, otherwise call MET

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Post Procedure:

- Recheck all oxygen and humidification equipment.
- The medical team and ward physiotherapist should be notified.
- The patient must remain on a humidifier that heats to a guaranteed 37°C. The use of a Heat Moisture Exchanger (HME) is not acceptable until reviewed by the TRAMS team, a senior physiotherapist or medical staff.
- Monitor oxygen saturations continuously with 30 minute vital observations for 2 hours
- Contact TRAMS pg 1291 to review the patient and assist with strategies to prevent further episodes of tube obstruction.
- Document in medical history.

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