

## TRACHEOSTOMY REVIEW AND MANAGEMENT SERVICE

### CLINICAL PROCEDURE

#### RECOGNISING AND MANAGING A BLOCKED TRACHEOSTOMY TUBE

##### Staff this document applies to:

Medical Staff, Nurses, Physiotherapists and Speech Pathologists on all campuses

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

[Mandatory Tracheostomy Equipment & Emergency Tracheostomy Management Poster](#)

[Humidification of Inspired Gases in Patients with Tracheostomy](#)

[Changing a Tracheostomy Tube](#)

[Suctioning via the Tracheostomy](#)

[Tracheostomy Cuff Management](#)

[Escalation Response to Clinical Deterioration - Austin Hospital](#)

##### Purpose:

To describe the procedure of recognising and managing a blocked tracheostomy tube.

##### Definition:

- A blocked tracheostomy tube is one in which airway patency is compromised by:
  - Secretions
  - Blood clots
  - A displaced over-inflated cuff
  - The tracheal wall (if the tracheostomy tube is malpositioned)

##### Key Points

- All tracheostomised patients should have a completed Emergency Tracheostomy Management Poster at the head of their bed.
- Maintaining a patent tracheostomy tube is vital to the safety of the patient.
- A blocked tracheostomy tube is an emergency and can result in respiratory arrest or death. Call a Respond Blue.
- Indicators that a tracheostomy tube is blocked:
  - The tracheostomy tube feels roughened when passing a suction catheter.
  - There is resistance felt when passing a suction catheter.
  - Inability to pass a suction catheter through the tracheostomy tube.

- A partially blocked tracheostomy tube can quickly progress to becoming completely blocked and should be regarded as an impending emergency. If unable to restore complete patency, the tracheostomy tube should be changed.
- Respiratory distress, increased work of breathing, or increased airway pressures in mechanically ventilated patients, should be assumed to be due to tracheostomy tube blockage until proven otherwise.

#### Equipment:

- Routine tracheostomy personal protective equipment (PPE)
  - Clean gloves
  - Safety shield, goggles, or glasses
  - Disposable apron
  - Surgical mask
- Working suctioning equipment
- Suction catheters: standard size 12 Fr.
- Spare tracheostomy tubes – 1 x the same size and 1 x a size smaller.
- Sterile normal saline ampoules
- 10ml syringes
- Cuff manometer (if tracheostomy has an air-filled cuff)
- Bag-Valve-Mask (e.g. Air Viva) with face mask and tracheostomy connector.
- Pulse oximeter.
- Refer also to: [Mandatory Tracheostomy Equipment & Emergency Tracheostomy Management Poster](#)

**Procedure: If Tracheostomy Tube is Blocked or Apparently Blocked:**

**Interventions for PRIMARY responders**

Primary responder = any RN, physiotherapist, or speech pathologist competent in tracheostomy management

| Blocked tracheostomy  |                            |                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                                                                                        | Initiate Respond Blue      | <ul style="list-style-type: none"> <li>■ Call 2222</li> </ul>                                                                                                                                                                                                                                                                             |
| 2                                                                                                        | Remove                     | <ul style="list-style-type: none"> <li>■ Inner cannula (if present)</li> <li>■ Speaking Valve</li> <li>■ HME</li> </ul>                                                                                                                                                                                                                   |
| 3                                                                                                        | Deflate the cuff           |                                                                                                                                                                                                                                                                                                                                           |
| 4                                                                                                        | Instill/ Suction/ Nebulise | <ul style="list-style-type: none"> <li>■ Instill 5ml saline lavage</li> <li>■ Suction</li> <li>■ Apply saline nebuliser and suction PRN</li> </ul>                                                                                                                                                                                        |
| 5                                                                                                        | Oxygen                     | <ul style="list-style-type: none"> <li>■ Apply oxygen via nose/ mouth and tracheostomy</li> </ul> <p>If tracheostomy remains blocked:</p> <p>&gt; 7 days post initial insertion, consider tracheostomy change by experienced staff</p> <p>&lt; 7 days post initial insertion, do NOT change the tracheostomy. Wait for CODE BLUE team</p> |

### Interventions for **ADVANCED** responders

Advanced responder = any trainee or consultant doctor with specialist airway skills e.g. anaesthetist, intensivist, ENT / thoracic / maxillofacial surgeon

## Difficulty breathing or ventilating via tracheostomy tube

**Stop when patient is stable**

|          |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>Remove attachments and inner cannula</b> | Remove / disconnect <ul style="list-style-type: none"> <li>■ Ventilation circuit and filter</li> <li>■ Speaking valve or heat moisture exchanger</li> <li>■ Inner cannula</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>2</b> | <b>Suction</b>                              | Pass suction catheter through entire length of tracheostomy tube <ul style="list-style-type: none"> <li>■ If suction catheter does not pass: <b>DO NOT VENTILATE VIA TRACHEOSTOMY TUBE</b> and proceed to Step <b>3</b></li> <li>■ If suction catheter passes easily, look listen and feel at tracheostomy               <ul style="list-style-type: none"> <li>- If breathing, apply oxygen via tracheostomy, consider partial obstruction</li> <li>- If not breathing, ventilate tracheostomy with air viva. <b>STOP IF HIGH RESISTANCE</b></li> </ul> </li> </ul> |
| <b>3</b> | <b>Deflate tracheostomy tube cuff</b>       | Look, listen and feel at mouth <ul style="list-style-type: none"> <li>■ If breathing via upper airway, apply oxygen to face</li> <li>■ If not breathing, manage upper airway               <ul style="list-style-type: none"> <li>- mask ventilate/LMA/ intubate</li> </ul> </li> </ul> Consider partial obstruction whether or not breathing                                                                                                                                                                                                                        |
| <b>4</b> | <b>Patient causes</b>                       | <ul style="list-style-type: none"> <li>■ Rapidly consider patient causes e.g. large pneumothorax, anaphylaxis, sputum plugging</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>5</b> | <b>Consider immediate bronchoscopy</b>      | Consider immediate bronchoscopy of tracheostomy tube if scope available and the following apply <ul style="list-style-type: none"> <li>■ New tracheostomy (&lt;10 days old) and</li> <li>■ Obstructed upper airway</li> </ul>                                                                                                                                                                                                                                                                                                                                        |
| <b>6</b> | <b>Remove tube</b>                          | <ul style="list-style-type: none"> <li>■ Remove tracheostomy tube and proceed to the next emergency pathway (Completely removed tracheostomy tube)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                        |

- These graphics are taken directly from the Tracheostomy Emergency Management poster.
- If the tracheostomy remains blocked, the tracheostomy should be changed:
  - Remove tracheostomy and proceed to the accidental decannulation pathway on the Emergency Tracheostomy Management poster.

### Post Procedure:

- Recheck all oxygen and humidification equipment.
- The treating medical team and ward physiotherapist should be notified.
- If this occurs on the weekend or out of business hours, please notify: the treating medical team, the ICU outreach team and the weekend physiotherapy team via RBC.
- 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 via Role Based Communicator on MS Teams during business hours to review the patient and assist with strategies to prevent further episodes of tube obstruction.
- Complete Riskman
- Document in medical history (including Riskman number)

### Document Author/Contributors:

TRAMS Policy and Procedure Committee (Updated December 2024)

### Legislation/References/Supporting Documents:

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### Endorsed by:

Deteriorating Patient Committee

Austin Airway Group

Clinical Nursing Standards Committee

CLIPP

### Document Owner /Person Responsible for Document:

- Prue Gregson, Tracheostomy Review and Management Service