TRACHEOSTOMY REVIEW & MANAGEMENT SERVICE (TRAMS)

CLINICAL GUIDELINE

MANAGEMENT OF PATIENTS WITH A MONTGOMERY LONG-TERM™ CANNULA

Staff this document applies to:

All campuses (patients may be transferred to subacute campus with a Montgomery Cannula in situ)

Medical staff, Nurses, Physiotherapists and Speech Pathologists

Related Austin Health policies, procedures or guidelines:

Planned Tracheostomy Decannulation Procedure

Tracheostomy – Management of patients with a tracheostomy

Tracheostomy – Mandatory equipment and emergency tracheostomy management poster

Montgomery Long-term Cannula Insertion Video: https://youtu.be/Crhu7m14zPg

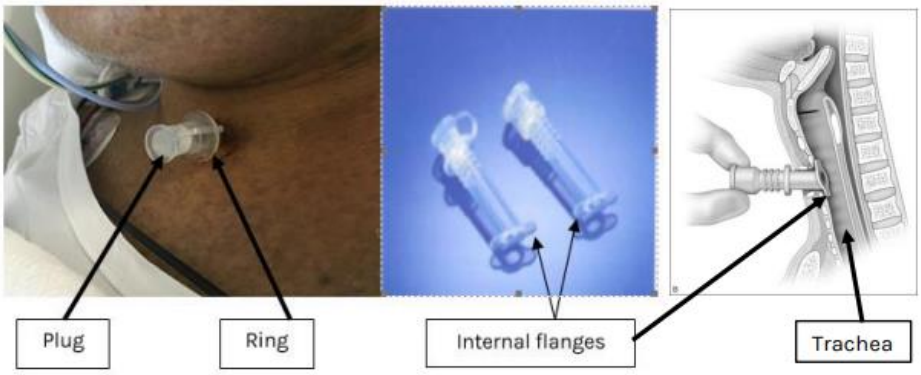
Purpose:

This document describes the use and care of the Montgomery Cannula (MC) including emergency management.

The MC can be used by inpatients of Austin Health on all three campuses as well as patients living in the community. All patients with an MC in place will be under the care of the Tracheostomy Review and Management Service (TRAMS) as well as their parent medical unit.

Key points:

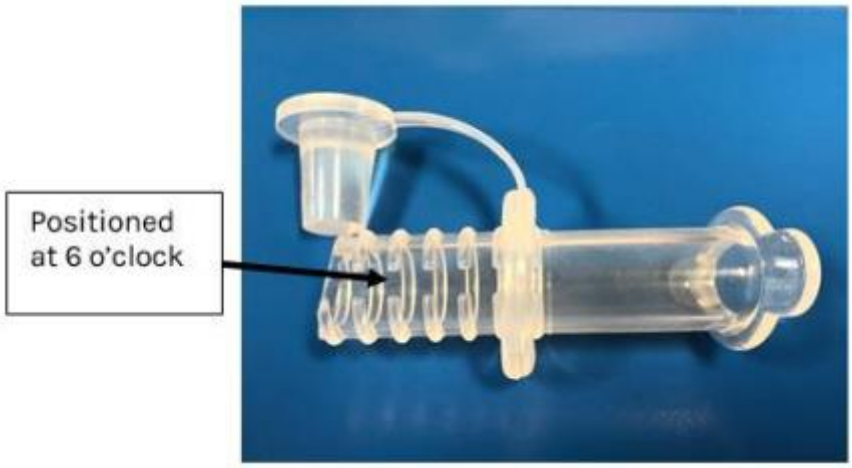
- The MC is a hollow silicon tube which sits in the tracheostoma without impinging on the tracheal lumen. It simulates decannulation but maintains stoma patency thus allowing for reinsertion of a tracheostomy tube if required.
- The MC has a plug inserted into the distal/external end which can be opened to allow the patient to breathe via the cannula if upper airway patency is compromised.
- The MC has internal flanges which hold it in place against the anterior tracheal wall which means the MC does not occupy space in the tracheal lumen. An external ring prevents the cannula from slipping posteriorly into the trachea.



Clinical Alerts:

- The MC cannot be attached to a ventilator or air viva.

- The MC is not suitable for use as a suctioning port as the horizontal orientation of the device directs the catheter to the posterior wall of the trachea and can lead to trauma.
- The external plug/ring set must be appropriately secured at all times to prevent posterior movement of the MC into the airway.
- There is a small opening in the ridges of the MC on the underside of the tube. This opening should sit at 6 o'clock when the cannula is in the tracheostoma indicating that the internal flanges of the MC are correctly oriented internally.



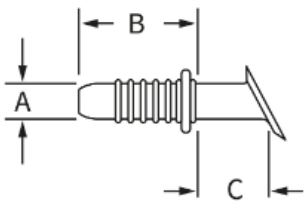
- If the MC is accidentally dislodged, call a Respond Blue. To avoid closure of the tracheostoma, either the MC or a tracheostomy should be reinserted as soon as possible by a staff member who has been trained to do so.
- If ventilation or suctioning are required a tracheostomy must be reinserted.

Indications for use of the Montgomery Cannula:

- Patients with compromised or variable upper airway patency who experience intermittent stridor can have an MC inserted to assess the patency of the airway over time.
- Patients who are having repeated trips to theatre for surgery (e.g. repeated wound irrigations) can have an MC between theatre visits. A tracheostomy tube is inserted for the duration of the anaesthetic and the MC used between procedures. TRAMS can assist with changing the MC to a tracheostomy for these repeated surgeries if required.
- Patients who are otherwise ready for decannulation but are considered to be high risk for medical deterioration or decannulation failure requiring reinsertion of the tracheostomy tube. Examples may be unstable or fluctuating medical status, difficult airway clearance or those requiring non-invasive ventilation.
- Patients with severe obstructive sleep apnoea who cannot use continuous positive pressure ventilation (CPAP) at the time of decannulation (e.g. due to facial fractures).

Measuring/sizing of the Montgomery Cannula:

- Dimension A: To select the appropriate size MC, TRAMS will select a cannula with an external diameter which corresponds most closely to the external diameter of the existing tracheostomy tube.
- Dimension C: The length of the MC will be determined by the TRAMS registrar performing a tracheoscopy prior to the insertion of the MC, to determine the depth of the pre-tracheal tissues. Insertion of the wrong size MC can result in premature closure of the tracheostoma.



SIZE	Dimensions (mm)		REF for the following stoma lengths (dimension "C") in millimeters					
	A	B	17–25	25–33	33–41	41–49	49–57	57–65
4	9	37	330425	330433	330441	330449	330457	330465
6	11	37	330625	330633	330641	330649	330657	330665
8	12	37	330825	330833	330841	330849	330857	330865
10	13	37	331025	331033	331041	331049	331057	331065

Emergency Management:

- **If patient is having difficulty breathing or clearing secretions:**
  - Open plug of MC for 15 minutes. If breathlessness is not resolved call a UCR, MET or Respond Blue as appropriate
- **If the MC falls out:**
  - Call a Respond Blue and reinsert the MC as soon as possible if you have been trained to do so
  - If unable to reinsert an MC, insert the emergency tracheostomy tube located in the bedside tracheostomy emergency box

Mandatory Montgomery Kit:

TRAMS will supply the Mandatory MC Kit containing:

- Booklet containing:
  - Information detailing the outer diameter and length of the MC
  - Information about the number of rings anterior to ring of the ring/plug set
  - Emergency Management procedures
  - Product information leaflet for the MC
- Artery forceps which can be used to grip the distal end of the MC in case of loss of the plug/ring set
- Lubricant
- Wooden single ended swab applicators for cleaning the inside of the cannula (Swab Sticks 15cm wooden shaft single ended, available from Austin Supply, Item Code 00008)
- 2 x Tracheostomy Tubes:
  - 1 size tube with corresponding outer diameter to the MC
  - 1 smaller size tube

Roles and Responsibilities:

When an MC is inserted following removal of a tracheostomy tube:

- Prior to removal of the tracheostomy tube, a Decannulation Documentation Form is completed on cerner. This entry will record the insertion of the MC and subsequent management plan.
- The patient will be provided with the Mandatory MC Kit.
- All tracheostomy mandatory equipment must remain at the bedside as when a tracheostomy is in place, including suction and humidification equipment. See Tracheostomy – Mandatory equipment and emergency tracheostomy management poster

- TRAMS will continue to review the patient and provide support and education for staff caring for the patient.
- TRAMS will work in co-operation with the home unit responsible for the patient and any other consulting teams (e.g. ENT) to plan for removal of the MC when appropriate.

Patient with an MC discharged to subacute care or community setting:

- TRAMS will assist in discharge planning for the patient if they are to be discharged from the acute site with the MC in situ
- The patient will be provided with the Mandatory MC Kit
- Suction and humidification equipment are not required if the patient is discharged to the community but should be available if the patient is in subacute care
- Patients in sub-acute care or in the community will be followed by TRAMS Community or VRSS Outreach (if the patient is receiving non-invasive ventilation). A referral (either by phone, RBC, cerner or written) required from the treating medical team.
- TRAMS will be responsible for routine changes of the MC every 2 months

Routine daily care of the Montgomery Cannula:

- Check that the plug of the cannula remains in place at all times. If replacement plug/ring set is required, contact TRAMS.
- Ensure ring is appropriately positioned according to the personalised instructions in the patient's Mandatory MC Kit booklet.
- Ensure the line to mark internal position is correctly positioned at '6 o'clock' (see Clinical Alert)
- Clean the stoma with swabs supplied (wooden single ended applicators, 15cm. Item code 13537). If the stoma is wet with secretions, a Topper split drain swab can be used (5cm x 5cm, Supplier: KCI Medical, Item Code MCKK100).
- Patency of the MC should be checked once per shift by gently inserting a wooden single ended swab applicator. This is will also enable removal of any dried secretions that may have collected inside the cannula.
- Monitor skin for signs of infection or irritation. If signs of wound break down or infection are observed contact TRAMS for advice.
- The stoma can be cleaned daily in the shower once the stoma is clean and well epithelialized.

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Legislation/References/Supporting Documents:

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Endorsed by:

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