

TRACHEOSTOMY REVIEW AND MANAGEMENT SERVICE (TRAMS)

CLINICAL PROCEDURE

TRACHEOSTOMY - USE OF HEAT MOISTURE EXCHANGERS (HMEs)

Staff this document applies to:

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

Related Austin Health policies, procedures, or guidelines:

- [Humidification of inspired gases in patients with a tracheostomy](#)
- [Suctioning via the Tracheostomy Tube](#)
- [Recognising & Clearing a Blocked Tracheostomy Tube](#)
- [Tracheostomy Care Changes in Response to Suspected or Confirmed COVID 19](#)

Who is authorised to perform this procedure?

- The decision to progress from a heated water humidifier to a heat moisture exchanger (HME) needs to be made by a senior physiotherapist, clinical nurse consultant or member of medical staff.
- All members of nursing, medical, physiotherapy and speech pathology staff can place an HME on a patient's tracheostomy tube.

Clinical Alert:

- HMEs provide less humidification than heated water bath humidifiers. If the patient is inadequately humidified, they are at risk of tracheostomy occlusion and/or sputum retention.
- Patients with large amounts of secretions are not suitable for HME use as they can block the tracheostomy with secretions when the HME is in place.
- HMEs may not be tolerated by some patients as they marginally increase work of breathing. Patients should be monitored for dyspnoea, fatigue and O₂ desaturation.
- HMEs should not be mistaken for Passy Muir Valves which offer no humidification
- In general, HMEs do not provide any anti-bacterial/anti-viral filtration. The exception is the antibacterial [Freevent Xtracare™ HME](#) (previously named ProTrach HME) which can be use with patients who are confirmed or suspected COVID-19. The [Freevent Xtracare™ HME](#) can be obtained from TRAMS or ED.

Purpose:

- To provide a convenient and portable form of humidification to patients with a tracheostomy
- HMEs can be placed directly onto the hub of a tracheostomy tube. The HME traps the moisture and heat from exhaled gas allowing it to be recycled on inspiration.

Common HMEs in use at Austin Health	
<p>Thermovent T™ (Portex Smiths Medical Code 70088) is the most commonly used HME at Austin Health</p> <p>Must be discarded when wet or soiled</p>	
<p>Foam HMEs: Has a connector which can connect oxygen tubing to provide low flow oxygen therapy</p> <p>Can be used in the shower and be re-used when dried.</p>	
<p>Trach-Vent: Has a connector which can connect oxygen tubing to provide low flow oxygen therapy.</p> <p>Must be discarded when wet or soiled</p>	
<p>Freevent Xtracare™ HME (previously named ProTrach HME): HME and anti-bacterial/anti-viral filter. An oxygen connector can be attached to provide low flow oxygen therapy.</p> <p>For use with patient with suspected or confirmed COVID-19. Contact TRAMS or ED.</p> <p>Must be discarded when wet or soiled</p>	

Procedure:

- Suction the patient to ensure a clear airway prior to placing the HME.
- Place the HME on the hub of the patient's tracheostomy tube.

Post procedure:

- Ensure the patient is adequately humidified whilst the HME is in use. Signs that the patient is inadequately humidified include:
 - Thick or tenacious sputum
 - An irritable cough
 - Difficulty coughing up or suctioning secretions
 - Secretions are collecting and drying within the tracheostomy tube
 - Secretions are very slow to move up the catheter during suctioning
 - Secretions are collecting on the outside of the catheter during suctioning
 - The HME should be discarded when visibly soiled with secretions or every 24 hrs
- Document in the patient's history.

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Legislation/References/Supporting Documents:

Atos Medical Freeevent® XtraCare™ HME Product Information:
<https://www.atosmedical.com.au/product/protrach-xtracare/>

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Endorsed by:

Tracheostomy Policy and Procedure Review Committee

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