Cleaning and Changing of a Tracheostomy Tube Inner Cannula

Expected Outcome
The integrity of the tracheostomy tube will be maintained by appropriate cleaning and changing of the tracheostomy tube inner cannula.

Policy Statement

- All patients with a dual lumen tracheostomy tube must have an inner cannula in situ.
- An accredited nurse will change the tracheostomy tube inner cannula at least once every 8 hours. The inner cannula may be changed more frequently as indicated.
- Only sterile normal saline 0.9% or sterile water will be used to clean the inner cannula.
- The inner cannula is to be removed from the soaking solution and air-dried prior to re-use.
- Sterile 0.9% normal saline/sterile water bottles must be changed every 24 hours.
- Note: The entire tracheostomy tube should be changed regularly according to policy No. P12.11 – Tracheostomy Tube Change. Intervals are based upon the tube and cuff integrity and generally a full change is performed between a four and six week interval.

Background
An inner cannula is a removable and generally reusable inner tube that fits within the main “outer lumen” of a tracheostomy tube. The ability to change an inner cannula in the event of tube occlusion may enable the blocked inner cannula to be removed, with subsequent maintenance of the outer tube’s lumen. This may avoid the trauma of an emergency complete tube change. Fenestrated inner cannulae are coloured differently for ease of identification when in use. An inner cannula will reduce the inner diameter of the tracheostomy tube slightly.

For the purposes of this policy, an accredited nurse is a registered or enrolled nurse who has been deemed competent by the ward/unit NUM and education staff to perform a tracheostomy inner cannula change and clean.

Equipment
- 100mL bottle sterile 0.9% normal saline or sterile water
- Spare dry and clean inner cannulae.
- Clean gloves, goggles, apron.
- Sanitised kidney dish.
- Biohazard plastic ziplock bag.

Process
- Wash hands, don goggles, apron and clean gloves.
- Open sterile saline bottle, do not contaminate cap.
- Explain procedure to patient and reassure as required.
- Remove inner cannula:
  ⇒ Shiley: twist anti-clockwise and remove. Replace with dry and clean inner cannula (where available) by twisting clockwise into position until click is heard.
  - The replacement spare inner cannula produced by Shiley is recommended for a 10 minute duration of use only.
  ⇒ Boots Portex (Thermosensitive Blueline Ultra): locate ring-tab and pull out towards operator, replace with a dry and clean inner cannula by inserting it until click is heard, do not twist ring tab.
If a replacement inner cannula is not available, clean and replace the existing inner cannula as soon as possible.
Ensure the inner cannula being replaced is dry - to avoid pseudomonas infection.
Obtain replacement inner cannulae from Stores or as per Ward stock usage.

Cleaning of Inner Cannula
• Place dirty inner cannula into 100mL bottle of sterile normal saline or water, replace cap.
• Agitate inner cannula within the bottle to assist in dislodging debris.
• Soak inner cannula for up to 30 minutes – 1 hour to assist in removal of debris.
• Remove inner cannula from saline, allow to air dry in sanitised kidney dish/receptacle. When drying is complete, return the clean, spare inner cannula to a biohazard plastic ziplock bag located next to tracheostomy emergency equipment (at the patient’s bedside) until required.
• A dry inner cannula is required to reduce growth of organisms such as Pseudomonas.

Documentation: CR 168 Tracheostomy Care Chart or flowchart
• Record date and time of inner cannula change.
• Record amount of debris within the inner cannula.
• Recommend future frequency of tube change based upon amount of debris within the inner cannula. Eg. If minimal debris, continue to change inner cannula as per the protocol: maximum of 8 hours. If large volume of debris found, recommend frequent change at 2 hourly intervals or more frequently as required.

References