

	<p>Policies and Procedures</p> <p>Title: TRACHEOSTOMY TUBE CHANGE - PEDIATRIC - ELECTIVE & EMERGENT</p> <p>RN Specialty Practice: RN Procedure LPN Additional Competencies: Assisting with Tracheostomy Tube Change for Pediatric Clients with an Established Plan of Care and Reinsertion of Tracheostomy Tube in an Established Stoma in an Emergency or Urgent Situation as Part of a Team Response</p> <p>I.D. Number: 1154</p>
<p>Authorization:</p> <p><input checked="" type="checkbox"/> Former SktnHR Nursing Practice Committee</p>	<p>Source: Nursing Date Revised: June 2018 Date Effective: October 2008 Scope: Former SktnHR and Affiliates</p>

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For the purpose of this policy, client will be used when referring to clients, patients, and residents.

DEFINITIONS

Authorized Practitioner - Physician, Registered Respiratory Therapist (RRT) or Nurse Practitioner (RN(NP)) who has knowledge and skill in tracheostomies.

Established Plan of Care: The plan of care for a tracheostomy tube change is considered established when the tracheostomy stoma is established, when the tube change is scheduled and when the child has vital signs within normal range and no increased oxygen requirements. The plan of care must be documented in the nursing care plan. The plan of care is no longer considered established if an increased frequency of monitoring is required, or oxygen or suction needs are increased or the stoma shows signs of infection or other complications.

Established Tracheostomy Stoma – stoma that is more than 14 days post-op and has had one uncomplicated tracheostomy tube change. The stoma is mature and the tract is well healed.

Non-Established Tracheostomy Stoma – stoma that has not yet had an initial tracheostomy tube change and is less than 14 days old.

ROLES

Graduate Nurses (GNs) As assigned, GNs identified by the manager in targeted practice settings, will be certified in this RN Specialty Practice (RN Procedure): Tracheostomy Tube Change – Pediatric – Elective & Emergent and may change tracheostomy tubes ONLY with the direct supervision of a certified RN.

Licensed Practical Nurses (LPNs) LPNs identified by their manager in targeted practice settings will be certified in the LPN Additional Competencies (LPNACs) – Assisting with Tracheostomy Tube Change for pediatric clients with an Established Plan of Care, and Reinsertion of a Tracheostomy Tube in an Established Stoma in an Emergency or Urgent Situation as Part of a Team Response. Certified LPNs may provide care as assigned, for clients who are less complex, more predictable, and at lower risk for negative outcomes. If a change is required in the plan of care, the LPN will consult with a RRT, RN(NP), physician or certified RN, and work collaboratively to establish a new plan of care.

Registered Nurses (RNs) RNs identified by the manager in targeted practice settings will be certified in this RN Specialty Practice: RN Procedure Tracheostomy Tube Change – Pediatric – Elective (scheduled tube change) and Emergent (airway obstruction or accidental decannulation). If a change is required to a plan of care within an LPN’s assignment, an RN will provide consultation as needed and work collaboratively with the LPN until a new plan of care is established. At any time, if tracheostomy tube change care needs are beyond the individual competence of a certified RN, they will consult and work collaboratively with another certified RN, a RRT, RN(NP) or physician to provide care.

1. PURPOSE

- 1.1. To provide safe tracheostomy tube changes for the pediatric age group in both elective and emergent situations.

2. POLICY

2.1. Elective/Scheduled Tracheostomy Tube Change

- 2.1.1. A practitioner’s order is required.
- 2.1.2. Elective tube changes should be scheduled and performed Monday to Friday between the hours of 0900-1600 in the event of any complications (exception PICU).
- 2.1.3. Initial tracheostomy tube change should be performed by the physician, preferably the surgeon who performed the tracheostomy in a critical care setting (PICU).

Note: *If the initial tracheostomy tube change is performed by 2 RRTs or RRT/PICU RN, a physician specialist must be contacted and be immediately available to assist or problem solve.*

- 2.1.4. An elective tube change for a non-established tracheostomy stoma should be performed by either 2 RRTs or RRT/PICU RN.
- 2.1.5. An elective tube change for an established stoma should be performed by either: 2 RRTs or RRT/NP or RRT/PICU RN or an RRT. Their role is to remove the previous tube and insert the new tube. The role of the RN/ LPN is to assist only.

Note: Long term care: the RRT with an assistant (RN, LPN, family member).

Note: Home Care: Home setting by the parent/caregiver with the RN assisting only. The parent/caregiver will have received education on trach care and demonstrated how to do a tube change independently at least 3 times (until competent) before being discharged from acute care OR in the Pediatric Outpatient Dept by the RRT.

2.1.6 Cuffed tubes require a pressure in cuff measurement post insertion. This is performed by an RRT using a cuff pressure manometer.

Note: Home care: Physician will write specific instructions on cuff inflation. Parents/caregivers will be taught how to inflate /deflate cuff and with what volume of air.

2.1.7 Prior to the tube change a thorough assessment and preparation of the client is required to promote a safe and timely procedure.

2.1.8 The client should be NPO 4 hours prior to tube change to prevent risk of aspiration.

2.1.9 Infection Control Practice

2.1.9.1 Non-Established Stoma Tube Change use sterile technique.

2.1.9.2 Established Stoma Tube Change use clean technique. Wear clean gloves and keep the portion of trach tube entering the client sterile.

2.1.10 Frequency of subsequent tube changes:

2.1.10.1 Tubes without an inner cannula should be changed weekly to monthly as per physician order and/or client need because these tubes have a narrower inner diameter and are at a higher risk of partial or complete occlusion from buildup of secretions.

2.1.10.2 Tubes with an inner cannula should be changed every thirty ((30) days as per physician order and/or client need.

Note; Long term care/ Home care: All types of tubes may be changed every 3 months.

2.2. Emergent Tracheostomy Tube Reinsertion

2.2.1 Tracheostomy tubes may require reinsertion on an emergent basis due to airway obstruction or unplanned decannulation.

2.2.2 For a non-established stoma:

2.2.2.1 An RRT/NP/ PICU RN may perform tube reinsertion in an emergency situation.

2.2.2.2 An RRT/NP/PICU RN must accompany the client upon transport and when the client is off the unit, with supplies for emergent tube replacement and suction.

2.2.3 For an established stoma:

2.2.3.1 An RN or LPN may perform tube reinsertion in an emergency situation when an authorized practitioner is not available.

2.2.3.2 An RRT/NP/RN/LPN or parent/caregiver who has received the trach care and tube change education must accompany the client upon transport and when the client is off the unit, with supplies for emergent tube replacement and suction.

2.2.3.3 Home Care in an emergency situation:

2.2.3.3.1 Parent/Caregiver will have received education and demonstrate how to reinsert the tracheostomy tube at least 3 times (until competent) before being discharged from acute care.

2.2.3.3.2 A certified RN may perform tube insertion when the parent /caregiver is not available.

2.2.4 Supplies for emergent tracheostomy tube replacement/change must be available in a readily accessible location at all times including not only when on the unit but during transport or anytime the client leaves the unit.

Note: A tracheostomy insertion tray must be available on the unit for the first 14 days post-operatively or until after the first tracheostomy tube change.

3. PROCEDURE

3.1 Elective Tracheostomy Tube Change

3.1.1 Verify the practitioner's order on the client chart.

3.1.2 Contact RRT to arrange a time to perform the tube change.

3.1.3 Gather supplies needed:

- Personal Protective Equipment (PPE): Mask with attached visor, gown, clean gloves
- Tracheostomy tube of same type and size and one size smaller
- Obturator (size of existing tube inserted)
- Manual ventilation device (MVD) of appropriate size with face mask
- Securement Device - Velcro/Twill tape ties
- Oximeter
- Suction catheter of appropriate size

- Tracheostomy dressing
 - 10mL syringe
 - Scissors
 - Rolled up towel
 - Normal Saline
 - Cuff Pressure Manometer (cuffed tube only)
- 3.1.4 Explain the plan for the tube change to child and family as appropriate.
- 3.1.5 Perform hand hygiene and don mask with attached visor, gown and gloves.
- 3.1.6 RRT/NP/PICU RN to prepare and inspect the new tracheostomy tube prior to insertion:
- 3.1.6.1 Without inner cannula: Insert obturator into the tube.
- 3.1.6.2 With disposable inner cannula:
- 3.1.6.2.1 Remove inner cannula and insert the obturator into the outer cannula.
- 3.1.6.2.2 Insert inner cannula into the tube and check that it can lock into place.
- 3.1.6.3 Cuffed Trach:
- 3.1.6.3.1 Inflate cuff, using a 10 mL syringe with the volume of air as ordered by the RRT or physician and squeeze the cuff to ensure it has no leaks.
- 3.1.6.3.2 Deflate the cuff using the syringe before reinsertion.
- 3.1.7 Position child in supine position with neck slightly extended (unless contraindicated) using a rolled towel under the shoulders.
- 3.1.8 Attach oximeter for continuous monitoring of O₂ saturations.
- 3.1.9 Suction trachea and mouth only if indicated (e.g. client can't cough or can't manage oral secretions).
- 3.1.10 If the client is on supplemental oxygen, preoxygenate by increasing oxygen to the client.
- 3.1.11 Thread the tube securement device through one of the openings in the neck plate.
- 3.1.12 Cuffed Tracheostomy:
- 3.1.12.1 RRT/NP/PICU RN to deflate the tube cuff before removing by withdrawing air slowly from balloon using a 10 mL syringe.
- 3.1.13 Lubricate the new tube cannula with sterile normal saline.
- 3.1.14 RRT/NP/PICU RN to loosen the Velcro fasteners or untie the twill tapes while the second person assisting holds the tube plate in place to prevent the tube from dislodging.

- 3.1.15 Observe stoma site for wound breakdown/granulation tissue, drainage, signs of infection.
- 3.1.16 The RRT/NP/PICU RN removes the existing tube using a smooth continuous motion preferably on exhalation (age dependent).
- 3.1.17 The RRT/NP/PICU RN gently and quickly inserts the new lubricated tube with obturator into the stoma following the inward and downward curve of airway while holding the tube securely in place.
- 3.1.18 The RRT/NP/PICU RN immediately removes the obturator.
- 3.1.19 Assess for correct tube placement: chest rising, equal and bilateral air entry.
- 3.1.20 RRT/NP/PICU RN to hold the outer cannula of the new tube in place while the second person secures the securing device allowing one finger to be placed between the securement device and the neck.
- 3.1.21 For tube with an inner cannula, insert inner cannula and lock in place.
- 3.1.22 Cuffed tube:
 - 3.1.22.1 The RRT/NP/PICU RN to inflate the cuff to the prescribed volume of air with a syringe. RRT will order the volume of air to inflate and measure with a pressure gauge. Document the volume of air in the client care plan and nursing record.
- 3.1.23 Suction tube followed by the mouth as required.
- 3.1.24 Place dressing on stoma site if required.
- 3.1.25 Remove PPE and perform hand hygiene.
- 3.1.26 Remove shoulder roll and place child in position of comfort with head elevated 30 degrees.

3.2 Emergent reinsertion of a tracheostomy tube

- 3.2.1 Supplies required:
 - Tracheostomy insertion tray on unit (for first 14 days post op)
 - Tracheostomy tube of same type and size plus one size smaller
 - Tracheostomy tube holder (Velcro device or twill tape)
 - Disposable inner cannula, same size as trach (if trach has an inner cannula)
 - Manual ventilation device (MVD) of appropriate size with face mask
 - Oxygen flowmeter
 - Suction regulator (continuous) with collection canister and tubing
 - Portable suction if off the unit
 - Suction catheter of appropriate size
 - Sterile 0.9% normal saline
 - Personal Protective Equipment (PPE): Mask with attached visor, gown, gloves:
 - Sterile gloves: fresh stoma (first 14 days)/ in PICU setting
 - Clean gloves for an established stoma
 - Cuffed tube: 10mL syringe & manometer device to measure cuff pressure (optional)

- 3.2.2 Perform hand hygiene and don mask with attached visor, gown and gloves.
- 3.2.3 Not all unplanned decannulations are life threatening emergencies. A code blue (321 urban acute care) or 911 (long term care/home care) may not need to be called. Assess client and if vital signs warrant, call a code, otherwise call for help on an urgent basis.
- 3.2.4 If the tracheostomy tube is not completely dislodged attempt to reinsert tracheostomy tube. Do not force.
- 3.2.5 If tracheostomy tube is completely dislodged:
- 3.2.5.1 Insert new tracheostomy tube of same type/size into stoma quickly.
- 3.2.5.1 If unable to insert the same size tube, attempt to insert a smaller sized tube.
- 3.2.5.1 Remove obturator and insert inner cannula (if tube with inner cannula).
- 3.2.5.1 Secure tracheostomy with securement device.
- 3.2.5.1 Ventilate client by attaching MVD directly to tracheostomy tube (If applicable).
- Note:** *If stay sutures still present, pulling them upward and outward may reopen stoma and enable tube insertion.*
- 3.2.6 If unable to reinsert tracheostomy tube of same size and one size smaller:
- 3.2.6.1 Insert end of a sterile suction catheter (approximately one inch) into stoma to help maintain opening. DO NOT connect catheter to suction.
- 3.2.6.1 Ventilate through stoma using MVD, or ventilate by mouth using MVD with face mask while occluding tracheostomy stoma.
- 3.2.6.1 If complete upper airway obstruction, gaping stoma or laryngectomy ventilate through stoma using MVD.
- 3.2.7 Remove PPE and perform hand hygiene.

3.3. Documentation

- 3.3.1 Document on the progress or nursing record
- date, time of procedure
 - type and size of tracheostomy inserted
 - child's response/ tolerance
 - use of oxygenation during the procedure
 - condition of stoma and surrounding skin, dressing on stoma site
 - cuffed tube : volume of air to inflate the cuff
 - cuff pressures recorded on ventilation record (PICU)
 - child and family/caregiver teaching

3.4. Reporting

3.4.1 Report immediately to the physician any difficulty during the procedure, including:

- Respiratory difficulties, desaturation, cyanosis, sustained change in vital signs
- Resistance or difficulty insertion
- Abnormal secretions, including bleeding
- Signs of infection at stoma site

4. RELATED POLICIES

Tracheostomy Care – Adult, Pediatric & Neonate #1184

Tracheostomy Tube Change –Adult and Pediatric Respiratory Therapy Services

5. REFERENCES

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