

Version	Date	Comments / Changes
1.0	July 2022	Initial Clinical Practice Guideline Released

## 1. FOCUS

The main purposes of this Clinical Practice Guideline (CPG) within Long-Term Care (LTC) homes are to:

- Ensure the care of residents with a tracheostomy is consistent with the residents' goals of care designation and the palliative approach to care philosophy.
- Support and facilitate structured and timely communication and documentation of relevant information among the care team when caring for residents with a tracheostomy.
- Provide evidence-based tools for the prevention and identification of complications, such as accidental decannulation and occluded tracheostomies.
- Support staff in assessing, monitoring, and caring for residents with tracheostomies.

## 2. APPLICABILITY

### Inclusion:

This CPG applies to residents within LTC homes who meet ALL of the following criteria:

- Has established tracheostomy with cuffless tube (tracheostomy has an inner cannula unless otherwise ordered by a physician) \*AND\*
- Is hemodynamically stable and medically predictable in order to live in LTC homes \*AND\*
- Has well-established individualized care plans

### Exclusions:

This CPG does not apply to residents of LTC homes who meet ANY of the following criteria:

- Breathes with mechanical ventilator
- Has cuffed tracheostomy
- Is medically unstable
- Does not have well-established care plans
- Is a total laryngectomy
- For transition of the resident with cuffless tube tracheostomy (Refer to [Appendix H](#))

## 3. PRACTICE LEVEL

### Registered Nurse (RN)/Registered Psychiatric Nurse (RPN)

RNs/RPNs working within LTC homes can provide tracheostomy care to clients once the Level 1 and Level 2 Education requirements are met. Refer to the [Staff Education](#) section for more information.

### Licensed Practice Nurses (LPNs)

LPNs working within LTC homes can provide tracheostomy care to clients with well-established tracheostomies if the following requirements are met:

- BCCNM limits and conditions (this means additional education must be met, as per below)
- Complete the "Respiratory Therapy Education Tracheostomy Care Session (LTC)" (See [Staff Education](#))
- Achieve competency verification with a Respiratory Therapist (RT)/or Registered Nurse (RN) mentor
- Tracheostomy care is assigned by an RN/RPN (Refer to [assessment](#) section)

#### 4. BACKGROUND

The tracheostomy may be temporary or permanent and is created surgically by a tracheotomy

A tracheostomy is an artificial opening in the trachea performed to:

- Maintain a safe airway (this may include bypassing upper airway obstructions such as tumors or vocal cord paralysis)
- Treat other airway problems, such as sleep apnea when non-invasive therapies are not tolerated
- Facilitate removal of secretions (e.g. following major head and/or neck surgery)
- Provide long term ventilation

#### 5. DEFINITIONS

**Tracheostomy:** An artificial opening in the trachea performed to protect the person's airway. The tracheostomy may be temporary or permanent and is created through a tracheotomy.

**Tracheotomy:** A procedure where the anterior wall of the trachea is entered below the level of the larynx and a tracheostomy tube is inserted. The upper airway remains intact. This may be done surgically or percutaneously using dilators.

**Stoma:** An artificial opening made into a hollow organ, especially one on the surface of the body leading to the gut or trachea.

**Established, stable tracheostomy stoma:** A stoma that is more than 14 days post-operative, has had 2 or more uncomplicated tracheostomy tube changes. For established, stable tracheostomy stomas, the volume and viscosity of secretions do not compromise the airway.

**Secretion clearance:** Removal of respiratory tract secretions either via the body's natural mucociliary clearance mechanisms, by airflow (cough), or the artificial means of removal via tracheal suctioning.

**Decannulation:** Removal of artificial airway can be planned or unplanned (accidental).

#### 6. EXPECTED OUTCOMES

- Well-established, evidence-based, and person-centered care plans are provided for residents with tracheostomies.
- Tracheostomy emergencies and complications are prevented.
- Transitions and transports of resident with tracheostomy are performed safely.
- Staff feel supported in completing and maintaining their competencies.

#### 7. ASSESSMENT

The Registered Nurse (RN)/Registered Psychiatric Nurse (RPN) determines if tracheostomy care should be assigned to an LPN based on an assessment of the resident, which includes the following details:

- Risk of tracheostomy tube dislodgement
- Risk of bleeding
- Airway clearance
- Overall medical condition of the resident

**Infection Prevention Control (IPC):**

Don the appropriate PPE after completing a Point of Care risk assessment. Refer to the following IPC Guidelines:

- [Aerosol Generating Procedures Standard Operating Procedures](#)
- [Selection and Use of Personal Protective Equipment for Infection Prevention and Control - Clinical Practice Guideline](#)

FH supports using clean procedure when assessing a tracheostomy not sterile, like as described in the [Elsevier Clinical Skills](#).

Assessment	Details	Resource
<b>1. Respiratory Assessment</b>	This should include inspection and palpation of the chest and auscultation of the resident's lung fields (anterior and posterior). Vital Signs (respiratory rate, oxygen saturation).	<ul style="list-style-type: none"> <li>• <a href="#">Assessment: Thorax and Lungs - CE - Clinical Skill</a></li> <li>• See <a href="#">Appendix E: Tracheostomy Daily Care Checklist</a> for assessment and monitoring frequencies</li> </ul>
<b>2. Safety Equipment</b>	<p>Emergency management and emergency kit/equipment must be with the resident with a tracheostomy at all times, including when off home unit (e.g. all transports, outings, visits to rehab etc.).</p> <p>In case of emergency tracheostomy tube dislodgement (decannulation) appropriate supplies and equipment to be kept at the bedside and/or immediately accessible; this includes times when the resident is being transported from unit to unit or anytime the resident leaves the facility.</p> <p>The emergency kit should be checked every shift or if have tamper seals in place with monthly expiry date checks. Expiry dates must be checked monthly.</p>	See <a href="#">Appendix I: Tracheostomy Bedside Emergency Airway Kit Equipment List</a>
<b>3. Tracheostomy Site</b>	Inspect stoma and surrounding skin for redness, edema, drainage, bleeding, foul odor, granuloma formation, infection or skin breakdown. Pay particular attention to areas underneath the flange and along the path of the tracheostomy ties and those residents with long hair or deep skin folds. Change dressing and clean surrounding skin as appropriate.	See <a href="#">Appendix E: Tracheostomy Daily Care Checklist - Long-Term Care - Form</a>
<b>4. Secretions</b>	Assess for change in the amount, colour or consistency of secretions. E.g.: absent or decreased amount, tenacious, excess and/or watery, or stained with tube feed, food/drink coloured secretions	
<b>5. Risk of Decannulation</b>	Ensure trach ties remain intact and secure leaving two fingerbreadth slack under tie. Replace or secure ties as necessary.	See <a href="#">Appendix B: Tracheostomy Tube, Emergencies and Complications</a>

**8. INTERVENTION**

Refer to the “Responsibilities and Frequency of Tracheostomy Related Procedures in Long-Term Care” table below.

<b>Responsibilities and Frequency of Tracheostomy Related Procedures in Long-Term Care</b>		
Intervention	Who	Frequency
Respiratory resident assessment	RT/RN/RPN/LPN	Every 12 Hours and as needed
Inner cannula care	RT/RN/RPN/LPN	Inner cannula check/clean BID and as needed  Disposable inner cannula changes BID and as needed
Tracheostomy stoma care and dressing change	RT/RN/RPN/LPN	BID and as needed
Changing tracheostomy ties	RT/RN/RPN/LPN	Change weekly on bath day and as needed only (when soiled or unable to secure Velcro). Note: Tracheostomy tube ties should not be changed for the first 24 hours after surgery unless the tube is not secure
Secretion clearance techniques (including suctioning of tracheostomy)	RT/RN/RPN/LPN	PRN
Changing tracheostomy tube	RT	Every month and as needed
Bedside equipment set up and maintenance	RT/RN/RPN/LPN	Checked/stocked every shift and as needed
Set up equipment for transports/wheelchair equipment	RT/RN/RPN/LPN	As needed Note: The nurse who escorts or sends the resident outside their room is responsible for setting up/checking supplies for the transport/outing
Checking emergency kit	RT/RN/RPN/LPN	Check contents are all present: every shift Check expiry dates: every month
Bathing	Nurse/RCA	As per resident care plan
Dining	Nurse/RCA	As per resident care plan
Monitoring resident	Shared responsibility between entire team	Ongoing and as per care plan

The following Clinical Skills provide details on completion of the interventions listed above:

- [Tracheostomy Management - Clinical Skill](#)
- [Tracheostomy: Suctioning in Med-Surg - Clinical Skill](#)

**Discharges and Transports**

- Emergency management and emergency kit/equipment must be with the resident with a tracheostomy at all times, including when off home unit (e.g., all transports, outings, visits to rehab etc.).
- In case of emergency tracheostomy tube dislodgement (decannulation) appropriate supplies and equipment to be kept at the bedside and/or immediately accessible; this includes times when the resident is being transported from unit to unit or anytime the resident leaves the facility.

- The emergency kit should be checked every shift or if tamper seals in place with monthly expiry date checks. Expiry dates must be checked monthly.
- Tracheostomy tubes rarely fall out on their own if proper care is taken to keep them well secured.
- Soft Velcro ties are comfortable and more commonly used for long term tracheostomies. Ties should not be removed unless the tracheostomy tube is held in place at all times (manually). For procedures in which the ties must be removed (i.e., tube changes), there should always be two people present so that the tube can be held in place for the duration of the procedure.
- The following steps describe the procedure to follow for an accidental decannulation:
  - If the patient is not breathing, cover the stoma and ventilate with mask over mouth and bag connected to oxygen
  - Call 911
  - Prepare for re-insertion if appropriate personnel on site
  - Otherwise prepare for transfer to hospital
  - See [Appendix B](#)

### Respiratory infections:

- Residents with tracheostomies are at increased risk of developing respiratory infections, and regular respiratory assessments are necessary to identify developing infections. Prevention strategies include:
  - Humidification to prevent drying and damage of airway mucosa and to improve secretion clearance.
  - Oral hygiene for the resident with a tracheostomy tube to reduce the oral pathogen load and associated risk of pneumonia
  - Adequate hydration to keep secretions thin and mobile.
  - Consult Speech Language Pathologist (SLP) where available for swallowing and speech/communication issues.

### Care Plan: See [Appendix G](#)

Every resident with tracheostomy will have an individualized care plan

- This care plan will include all of the following, at minimum:
  - Mobilization: resident mobilization and exercise goals as tolerated.
  - Stoma care: provide tracheostomy stoma care at least twice daily and as needed (as per care plan) depending on the healing of the stoma and amount of secretions.
  - Secretion clearance care: to prevent infection and airway occlusion, as well as to provide comfort.
  - Humidification: to provide humidification for the tracheostomy/laryngectomy and adequate hydration. Airvo circuit is changed every 2 months. Resident connector is changed every month.
  - Oral Care: refer to the [Oral Health - Adult - Integrated Standards for Long-Term Care Facilities and Group Homes - Clinical Protocol](#)
  - Bathing: Resident should have showers ensuring water does not enter the tracheostomy or around the stoma. If tracheostomy is attached to inline suction catheters, the open end should be facing down to prevent water from going into the tube, while keeping it open, and put a towel around the stoma site to prevent water from going into the stoma around the tube. If inline suction is not present, a tracheostomy mask could be used to protect the airway and use a towel around the stoma while keeping it patent.
  - Communication
  - Activities of daily living (ADLs)

## 9. DOCUMENTATION

The [Documentation - Clinical Policy](#) must be followed and the following must be used:

- Tracheostomy Daily Care Checklist - Long-Term Care - Form ([Appendix E](#))

- Tracheostomy (Stable & Established) Care Plan - Long-Term Care - Form ([Appendix G](#))
- Using established process, document (and add to care plan) the following information as appropriate):
  - Informed consent
  - Respiratory assessment findings
  - Stoma and surrounding skin assessment findings
  - Reason for specific tracheostomy procedures, such as suctioning, dressing changes, tube changes
  - Care provided and outcomes
  - Resident and family education
  - [Preview-ED Tool - Resident - Form](#)
  - Fluid and food intake
  - Safe swallowing strategies
  - Bathing
  - Emergency kit contents and sign (See [Appendix I](#))

#### International Resident Assessment Instrument (**InterRAI**)

- Coding in InterRAI needs to be completed for residents with tracheostomy, section P1
  - I. RAI - P1ai. Suctioning – includes oropharyngeal, nasopharyngeal and tracheal aspiration
  - II. P1aj. Tracheostomy care – includes cleansing of tracheostomy and cannula

#### **Documentation and Communication During Resident Transitions**

Transferring a resident to and from acute care or other long-term care homes (e.g. transfer from hospital to long-term care) requires clear [documentation](#) and verbal handover. During transfer of care, the following information must be communicated about the tracheostomy on the [Transfer From Acute To Long-Term Care Checklist - Form](#)

- Size and type (cuffless)
- Date of tracheostomy
- Date tracheostomy tube inserted
- Date tracheostomy tube change due
- Suctioning needs
- Any other specific airway information such as use of a one way speaking valve
- Request information from the Access Care and Transitions (ACT) Team
- Transfer checklist to be kept on chart

## 10. EDUCATION

### **Residents and Families education:**

FHA booklet [Going Home with a Tracheostomy](#) and [Learning How To Care For My Tracheostomy Learning Journal - Booklet](#) can be used for education.

### **Staff Education**

**Note:** All nursing staff at care homes who provide care of residents with tracheostomies must complete both Level 1 and Level 2 Education, as outlined below. Upon successful completion of both Levels 1 and 2, staff will be awarded with a certificate.

#### **Level 1: Theory and Knowledge**

In order to achieve competencies, staff are required to:

1. Review CLINICAL PRACTICE GUIDELINE: Caring for a Resident with Established and Stable Tracheostomy in Long-Term Care Homes

2. Complete the [Learning Hub](#) modules on tracheostomy care:
  - [Acute Medical Surgical Nursing AMSN-201 Respiratory Assessment](#)
  - [Acute Medical Surgical Nursing AMSN-203 Tracheostomy Care \(online\)](#)
  - [Acute Medical Surgical Nursing AMSH-204 Suctioning in Respiratory Care](#)

All nurses must practice according to their respective college standards for acting within autonomous scope of practice. Nurses should refer to their Scope of Practice Document to ensure current awareness of limits and conditions.

1. [RN Scope of Practice](#)
2. [RPN Scope of Practice](#)
3. [LPN Scope of Practice](#)

The re-insertion of a tracheal tube (outer cannula) either routinely or following an emergency decannulation will only be conducted by a Respiratory Therapist (RT), Nurse Practitioner (NP) or Physician.

### **Level 2 Education: Hands-on skills**

Before performing care to a resident with a tracheostomy the nurse must observe and provide a return demonstration as observed by a FH Community Respiratory Therapist, CNE, or a Nurse with relevant training/experience. See [Appendix A](#) for the list of skills that must be successfully completed in order to complete this level.

Optional Staff Education:

Additional resources accessed as needed via Clinical Skills:

1. [Assessment: Thorax and Lungs - CE](#)
2. [Tracheostomy Management](#)
3. [Tracheostomy: Suctioning in Med-Surg](#)

**Please note:** Fraser Health Long-Term Care supports use of **clean** procedure, **not sterile** as described in the Clinical Skills for established tracheostomies.

## **11. MONITORING/EVALUATION**

**LTC sites need to ensure the following are implemented:**

### **Resident:**

- All residents with tracheostomy tube have a personalised care plan ([Appendix G](#))
- Care plan updated quarterly and with changes in conditions
- Tracheostomy Daily Care Checklist or an equivalent list is in place and completed fully ([Appendix E](#))

### **Equipment:**

- Tracheostomy bedside emergency airway equipment is present and there is a process in place for daily checking and replacement as needed ([Appendix I](#))
- Tracheostomy equipment list is present and extra equipment is readily available ([Appendix C](#))

### **Education and tools:**

- Staff reports of feeling supported in completing and maintaining their competencies. Education competency records kept on site
- Tools and resources are available

### **Outcome:**

- Reduction in transfers to Emergency Department
- Transitions and transports of resident with tracheostomy are performed safely as evidenced by patient safety/reportable incidents reports

## 12. REFERENCES

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**13. APPENDICES**

[Appendix A: Competency Checklist for Staff](#)

[Appendix B: Tracheostomy Tube, Emergencies and Complications](#)

[Appendix C: Medical Equipment Supply List](#)

[Appendix D: Emergency Tracheostomy Management - LTC](#)

[Appendix E: Tracheostomy Daily Care Checklist - Long-Term Care - Form](#)

[Appendix F: Community Respiratory Services Referral](#)

[Appendix G: Tracheostomy \(Stable & Established\) Care Plan - Long-Term Care - Form](#)

[Appendix H: Resident with Tracheostomy \(uncuffed tube\) Pathway Transition to Long-Term Care Homes](#)

[Appendix I: Tracheostomy Bedside Emergency Airway Kit Equipment List](#)

**Appendix A: Competency Checklist for Staff**

Tracheostomy Management	Date	Completed	
		YES	NO
States the indications for a tracheostomy			
Identifies path of airflow and understands function of the tracheostomy tube			
Able to differentiate between cuffed and cuffless tracheostomy tubes			
Able to identify various tracheostomy brand, types, size, labeling/ terminology of brands			
Able to understand the inner cannula locking mechanisms			
Able to differentiate between reusable and disposable inner cannulas			
Able to differentiate between corked and uncorked tracheostomies			
For all procedures: <ul style="list-style-type: none"> <li>• Gathers necessary equipment</li> <li>• Performs hand hygiene and dons/doffs appropriate Personal Protective Equipment (PPE)</li> <li>• Explains procedure to patient/resident/client</li> <li>• Appropriately documents</li> </ul>			
<b>Tracheostomy Emergency Equipment</b>			
Manual Ventilation Unit (MVU): Understands how the MVU works Identifies the components of the MVU Able to complete a functionality and safety check of the MVU, mask and oral airways			
Tracheostomy Emergency Kit: Lists emergency equipment required with resident at all times including portable suction machine when resident leaves the room			
Portable Suction Machine: Demonstrates suction equipment set up (wall and portable) and is able to trouble shoot equipment Demonstrates cleaning and battery changing procedure for portable suction equipment			
<b>Tracheostomy Care</b>			
Inner Cannula Care: Explains the importance of maintaining inner cannula patency Identifies when to check and change inner cannula Demonstrates how to change inner cannula Demonstrates procedure for cleaning non-disposable inner cannula			
Stoma and Dressing Care: Demonstrates proper skin assessment. Demonstrates proper cleaning technique and how to change tracheostomy dressing Demonstrates correct technique for changing/adjusting tracheostomy ties. Ensures a secured airway Disposes of secretions and soiled supplies appropriately			
<b>Secretion Clearance Techniques</b>	<b>Date</b>	<b>Completed</b>	

		YES	NO
Recognizes the indications for bronchial hygiene and chooses the appropriate secretion clearance technique.			
Suctioning: <ul style="list-style-type: none"> <li>• Lists possible complications of tracheostomy suctioning and what actions are required (mucus plug, bleeding, change in secretions, hypoxia etc.)</li> <li>• Demonstrates correct instillation of saline in to the tracheostomy (if required)</li> <li>• Demonstrates appropriate suction technique</li> <li>• Clean technique</li> <li>• Uses appropriate catheter size</li> <li>• Uses appropriate suction depth</li> <li>• Uses appropriate suction pressure (generally 100-120 mm Hg)</li> <li>• Each suction attempt less than 15 seconds</li> <li>• Observes resident response and pauses between suction attempts</li> <li>• Demonstrates correct set up of specimen trap and procedure for specimen collection</li> </ul>			
Manual Assisted Cough Technique <ul style="list-style-type: none"> <li>• Understands the indications, contraindications and precautions for performing an assisted cough</li> <li>• Assesses resident tolerance to procedure and effectiveness of therapy</li> </ul>			
<b>Oxygen Therapy</b>			
<ul style="list-style-type: none"> <li>• Demonstrates oxygen therapy via various delivery modes and proper cleaning techniques for:                             <ul style="list-style-type: none"> <li>○ Heated High Flow via tracheostomy mask (AIRVO/Optiflow)</li> <li>○ Medication Delivery Devices (Aeroneb, spacer, small volume neb)</li> <li>○ Nasal Prongs (with One Way Speaking Valve [OWSV] or corked tracheostomy)</li> </ul> </li> <li>• Identifies various portable oxygen sources (Grab and Go, Liquid, H size)</li> <li>• Able to estimate oxygen tank duration</li> <li>• Demonstrates proper use of oxygen concentrator including filter and battery check and procedure for flows greater than 5 lpm (if applicable)</li> <li>• Able to titrate oxygen therapy based on clinical status</li> <li>• Able to recognize if consult to Respiratory Therapist or Physician is required</li> </ul>			
<b>Humidification</b>			
Humidification Therapy: <ul style="list-style-type: none"> <li>• Understands the indications for humidification</li> <li>• Able to select appropriate humidification device (HME, Airvo, etc.)</li> <li>• Demonstrates correct application of the humidification device to the tracheostomy</li> <li>• Demonstrates correct filling of humidifier and emptying of condensation</li> <li>• Able to troubleshoot humidification devices</li> </ul>			
<b>Monitoring</b>			
<ul style="list-style-type: none"> <li>• Demonstrates knowledge of oximeters, when to apply and when to change probe site</li> </ul>			

<ul style="list-style-type: none"> <li>Identifies oximeter limitations and understanding of waveform</li> <li>Able to properly set oximeter alarms</li> <li>Performs a full respiratory assessment</li> <li>Demonstrates correct monitoring of the flow sheet and completes relative documentation</li> </ul>			
<b>Speaking Valves (e.g. One Way Speaking Valve [OWSV])</b>			
<ul style="list-style-type: none"> <li>Lists the indications and contraindication for application for OWSV</li> <li>Reviews <a href="#">Tracheostomy Care - Passy-Muir Speaking Valve - Clinical Policy</a></li> <li>Identifies situations when OWSV is to be removed</li> <li>Demonstrates proper cleaning of OWSV</li> <li>Coordinates with SLP when applicable</li> </ul>			
<b>Tracheostomy Changes – done by RT</b>			
<b>Tracheostomy Emergencies</b>			
<p>Manual Ventilation:</p> <ul style="list-style-type: none"> <li>Identifies indications for using the resuscitation bag and signs of respiratory distress</li> <li>Demonstrates appropriate manual ventilation technique via bag mask and via tracheostomy (1 and 2 person procedures)</li> <li>Understands the differences in manual ventilation techniques in spontaneously breathing patients vs apneic patients</li> <li>Demonstrates how to correctly insert an oral airway</li> </ul> <p>Clinical Application:</p> <ul style="list-style-type: none"> <li>Follows the emergencies algorithm for tracheostomy tube occlusion and complete decannulation</li> <li>Explains the steps performed if the tracheostomy tube is partially dislodged, during an aspiration event, and in the case of respiratory arrest</li> <li>Recognizes how to check for an interstitial tracheostomy</li> <li>Able to recognize when to call for help and when to initiate manual ventilation</li> </ul>			

**Tracheostomy Competency Checklist Sign-off**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor: \_\_\_\_\_

Comments: \_\_\_\_\_

Staff Member Signature:

\_\_\_\_\_

Assessor Signature:

Date:

\_\_\_\_\_

\_\_\_\_\_

**Appendix B: Tracheostomy Tube, Emergencies and Complications**

Prevention	Intervention	Additional Information
<b>Hemorrhage</b>		
<p>Assess stoma for bleeding</p> <p>Report swelling of lower neck and all episodes of bleeding other than minor oozing.</p> <p>Suspect a trachea-Oinnominate artery fistula in any resident who has more than 10mL of blood from the tracheostomy stoma or cannula 48 hours or more after tracheostomy.</p>	<p>If massive hemorrhage or sudden rapid bleeding occurs:</p> <ul style="list-style-type: none"> <li>• Call 911 and Notify physician STAT</li> <li>• Suction airway/maintain patency as best as possible</li> <li>• Apply pressure if possible</li> <li>• Monitor vital signs</li> </ul> <p><b>Note:</b> Heavier bleeding may require the surgeon to pack the wound, or resident may need to go to the OR for surgical hemostasis.</p>	<p>Frequent suctioning can result in blood-streaked sputum.</p> <p>In long term tracheostomy tubes, granulomas at stoma site or in trachea can result in frank blood.</p>
<b>Discomfort</b>		
<p>Assess position of the tracheostomy tube in trachea.</p> <p>Perform trach related procedures gently (e.g., suctioning, stoma care, etc.).</p>	<ul style="list-style-type: none"> <li>• Reduce pulling and tension on tracheotomy tube.</li> <li>• Check tightness of ties.</li> <li>• Consult with FH Community Respiratory Therapy or Physician if discomfort persists.</li> </ul>	<p>Additional tracheostomy tube options are available.</p>
<b>Pneumothorax or Pneumo-mediastinum</b>		
<p>Caused by a direct injury to cervical pleura.</p> <p>Especially prominent in children and resident with COPD.</p>	<ul style="list-style-type: none"> <li>• Notify Physician if suspected.</li> <li>• CXR to confirm if suspected.</li> <li>• Usually requires chest tube.</li> <li>• Monitor SpO<sub>2</sub> and vital signs</li> </ul>	
<b>Subcutaneous Emphysema/ Pneumothorax/Pneumo-mediastinum</b>		
<p>Can occur with:</p> <p>Interstitial tracheostomy tube placement.</p> <p>Tube which is too tightly sutured (air enters neck tissue rather than leaking around tube)</p> <p>Partial dislodgement of tube.</p>	<ul style="list-style-type: none"> <li>• Notify Physician if crepitus felt on palpitation.</li> <li>• Monitor for changes/increase and ensure trach tube is properly secured.</li> <li>• A respiratory assessment should be performed before and after trach tube insertion.</li> </ul>	<p>Air can become trapped in the subcutaneous tissues of the thorax during tube insertion.</p> <p>Air may re-absorb spontaneously or chest tube may be required.</p>

Adapted from: Vancouver Coastal Health. Tracheostomy and Laryngectomy - Care and Management. 2019. Policy D-00-12-30376.

Prevention	Intervention	Rationale
<b>Tube Occlusion</b>		
<p>Ensure inner cannula is in situ at all times.</p> <p>Inspect patency of inner cannulas</p> <p>Maintain clean technique for trach care (stoma and inner cannula care) and suctioning.</p> <p>Adequate humidification is recommended</p> <p>Keep resident well hydrated (as evidenced by thin secretions, moist mucous membranes).</p> <p>Regular mouth care with toothbrush and toothpaste. Be aware of secretions at back of throat.</p> <p>Maintain bronchial hygiene. Use a secretion clearance technique if cough is not effective.</p>	<p>If tube occludes:</p> <ul style="list-style-type: none"> <li>See <a href="#">Appendix D</a>: algorithm for management of tracheostomy tube occlusion.</li> </ul>	<p>Increased amounts of sputum are natural response to a tracheostomy tube.</p> <p>Trach care and prn suctioning to minimize risk.</p>
<b>Aspiration</b>		
<p>All residents with tracheostomy require a swallow assessment (which requires a physician order) prior to commencement of oral feeding - consult with SLP and RT as indicated.</p> <p>Keep the head of the bed elevated at least 30 degrees if there is risk for aspiration.</p> <p>Mouth care for residents who are unconscious or unable to expectorate:</p>	<ul style="list-style-type: none"> <li>If resident vomits, suction immediately, raise bed to &gt;30 if possible and notify physician/RT.</li> <li>Report signs of aspiration should it occur: excessive coughing &amp; gagging, (especially around meal times), increased/change in secretions, presence of ingested food in tracheal aspirate, or drop in O<sub>2</sub> saturation.</li> </ul>	<p>The physiologic anti-aspiration reflexes are bypassed.</p> <p>The underlying diagnosis necessitating a tracheotomy may put the resident at a high risk of aspiration</p> <p>Swallowing assessment by SLP can be completed on tracheostomy residents who are alert, able to sit upright, can manage oral secretions, tolerate cuff deflation, and who have no gastrointestinal contraindications to oral intake. Refer to <a href="#">Oral Health - Adult - Integrated Standards for Long-Term Care Facilities and Group</a></p>

position patient's head to side for aid with draining and remove excess moisture with a gauze/washcloth, use suction as needed.		<a href="#">Homes - Clinical Protocol</a> and <a href="#">Speech Language Pathology - Care Standard</a>
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Prevention	Intervention	Additional Information
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**Tube Displacement or Accidental Decannulation**

<p>Ensure trach ties/sutures remain intact and secure leaving two fingerbreadth slack under tie.</p> <p>Tracheostomy tubes can come completely out of the stoma (visible), or they can become dislodged from the trachea but not come out onto the neck, having been displaced into the paratracheal tissues (interstitial).</p> <p>Risks for this complication include patient movement, excessive coughing, obese patients, patients with thick necks, and inadequately secured tube</p>	<p><b>Call 911 and transfer to ER</b></p>	<p>Okay to change inner cannula.</p> <p>If re-cannulation is not possible, endotracheal intubation may be necessary.</p>
--	---	--

**Skin Breakdown**

<p>Perform regular skin assessment underneath the flange and along the path of the tracheostomy ties. Close attention should be paid to those with long hair or deep skin folds.</p> <p>Frequent removal of secretions around the stoma and under the flange will help minimize tissue maceration.</p> <p>Ensure trach ties remain intact and secure leaving two fingerbreadth slack under tie. A loosely tied tube will move freely in the stoma, eroding the surrounding tissue and enlarging the opening.</p>	<ul style="list-style-type: none"> <li>• Notify physician and FH wound care clinicians if there are signs of skin breakdown.</li> </ul>	<p>Tracheal ulceration may occur if incision has been closed too tightly, or tube is ill fitting causing pressure necrosis of skin.</p> <p>Proper trach care is an important factor in prevention of skin breakdown.</p>
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**Appendix C: Medical Equipment Supply List**

Necessary Equipment	Quantity (Monthly Average)	Vendor's Name
<b>Tracheostomy Care Supplies</b>		
Trach care cleaning kit	2	
Trach ties	4	
2x2 Gauze	60	
Trach dressing (4x4) – precut	60	
Cotton tip applicators	240	
Trach cleaning brush	2	
Disposable gloves	1 box	
Sterile dressing trays	4	
Trach tube	1 every 6 weeks	
Normal Saline	4 – 1 L bottles	
<b>Suction Supplies</b>		
Suction machine	One time purchase	
Suction catheters (e.g. flexible tubing, Yanker)	4	
Suction tubing and canister	1	
Addi-PAK saline 15mL (inhalation)	100	
<b>Additional Equipment</b>		
<b>Humidity Supplies</b>		
Heat Moisture Exchanger (HME)	6	
Nebulizer	One time purchase	
My AirVo 2	One time purchase	
My AirVo 2 accessories	Monthly circuit and pt connector	



Appendix E: [Tracheostomy Daily Care Checklist - Long-Term Care - Form](#)



**Tracheostomy Daily Care Checklist  
Long-Term Care**



Form ID: NUXX107612A

New: July 07, 2022

Page: 1 of 2

<b>Directions:</b> Initial to indicate assessment/procedure performed. Write "N/A" when assessment/procedure was NOT performed or does not apply.							
	<b>Date</b>						
<b>Respiratory Assessment</b>	AM						
	PM						
<b>Bedside emergency equipment Kit *</b> Check once/shift List of contents on pg. 2	0700 to 1500						
	1500 to 2300						
	2300 to 0700						
<b>Inner cannula change</b> (BID and PRN)	AM						
	PM						
	PRN (indicate time and initial)						
<b>Suctioning</b> (PRN)	Time						
<b>Stoma care and dressing change</b> (BID and PRN)	AM						
	PM						
	PRN (indicate time and initial)						
<b>Tracheostomy ties securely fastened</b> <b>Yes/No</b>	0700 to 1500						
	1500 to 2300						
	2300 to 0700						
<b>Date of next outer tracheal tube change by Respiratory Therapist</b> (every month and PRN)							
<b>Heat Moisture Exchanger (HME)</b>  (Change every 24 hrs)	Time						
	PRN						
<b>Other daily care needs:</b>							

\*See back page for list of bedside emergency equipment list

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Note: This screenshot may not reflect the latest version of the form.

## Tracheostomy Daily Care Checklist Long-Term Care

Page: 2 of 2

### Tracheostomy Bedside Emergency Airway Kit Equipment List

In **Community/Long-term Care areas**, spare Trach Tubes (same type and size) with gloves, water soluble lubricant and trach ties are commonly seen.

It is recommended to have:

- a spare tracheostomy tube - same size and one size smaller
- 10cc syringe
- 1 pack water soluble lubricant and obturator (to fit tube in situ if displaced)
- Manual Ventilation Unit with oxygen tubing
- Heat and Moisture Exchanger (HME)
- Flex tube and swivel adaptor connected and ready to be used
- Face mask
- 2 oral airways

Permission for use obtained from: Vancouver Coastal Health. Tracheostomy and Laryngectomy - Care

Note: This screenshot may not reflect the latest version of the form.

Appendix F: [Community Respiratory Services Referral - Form](#)



**COMMUNITY RESPIRATORY SERVICES REFERRAL**



Form ID: RTXX103101E

Rev: April 21, 2020

Page: 1 of 1

CLIENT NAME:	DIAGNOSIS:
PHN:	LAST HOSPITAL ADMISSION DATE:
DATE OF BIRTH:	HOSPITAL SITE:
ADDRESS:	FAMILY PHYSICIAN / NURSE PRACTITIONER:
CITY:                      POSTAL CODE:	PHONE:                      FAX:
PHONE:	SPECIALIST:
ALTERNATIVE CONTACT:	
RELATIONSHIP:	PHONE:                      FAX:
PHONE:	

Date: \_\_\_\_\_

**Reason for Referral:**

- |   |  |
|---|--|
| <input type="checkbox"/> Respiratory Education                              | <input type="checkbox"/> Home Health Monitoring (HHM)          |
| • COPD  |  |
| • Asthma  | <input type="checkbox"/> Spirometry / Screening                |
| • Fibrosis  | • Pre / Post   |
| <input type="checkbox"/> Smoking Cessation Education                        | • Consent to give 4 puffs Salbutamol                           |
| <input type="checkbox"/> Home Oxygen Assessment<br>(for home bound clients) | <input type="checkbox"/> Tracheostomy Assessment and Education |
| <input type="checkbox"/> Respiratory Muscle Test (MIP/MEP)                  | <input type="checkbox"/> Tracheostomy Change Request           |

**Comments:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Referred by: \_\_\_\_\_  Physician/Nurse Practitioner  RRT  RN  Other: \_\_\_\_\_

Signature: \_\_\_\_\_ Contact Information: \_\_\_\_\_

**Please fax to: Community Respiratory Services FAX 604-514-6079**

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# 256771

Note: This screenshot may not reflect the latest version of the form.

**COMMUNITY RESPIRATORY SERVICES  
REFERRAL**

Back of Page 1

Terms:

By completing and signing this form you are:

- A. Completing a referral to Community Respiratory Services for:
  - Respiratory Disease Education
  - Tracheostomy Assessment and Education
- B. Permitting respiratory assessments and tracheostomy education for referred clients
- C. Physician / Nurse Practitioner signed Community Respiratory Services referrals are permitting pertinent client diagnostic testing which may include:
  - Spirometry (including 4 puffs of Salbutamol)
  - Respiratory Muscle Strength testing (MIP/MEP/SNIP/ Vital Capacity)
  - Pulse oximetry (on and/or off oxygen therapy) at rest and with activity
  - Nocturnal oximetry assessments (on and/or off oxygen therapy)
  - Tracheostomy education, assessment and care

Once completed, this form is to be faxed to:

**Community Respiratory Services at 604-514-6079**

CRS will contact the client within 72 business hours from receipt of referral, to schedule the at-home education and assessment by the Registered Respiratory Therapist.

**Community Respiratory Services:**

**Phone: 604-514-6106 or 1-888-514-6106**

**Fax: 604-514-6079**

Note: This screenshot may not reflect the latest version of the form.

**Appendix G: [Tracheostomy \(Stable & Established\) Care Plan - Long-Term Care - Form](#)**

**Tracheostomy (Stable & Established) Care Plan  
Long-Term Care**


Form ID: NUXX107613A

New: July 07, 2022

Page: 1 of 2

MRP: \_\_\_\_\_ Contact Number: \_\_\_\_\_ Reason for Tracheostomy: \_\_\_\_\_

 Tracheostomy Tube: Type: \_\_\_\_\_ Size: \_\_\_\_\_  Cuffed  Non-cuffed Original Insertion Date: \_\_\_\_\_

Date due for next Tracheostomy Tube (Inner and Outer Cannula) Changeover: \_\_\_\_\_

 Who will do the trach tube changeover:  Respiratory Therapist  Physician

 Continuous oxygen flow rate: \_\_\_\_\_  Using room air Humidified air via: \_\_\_\_\_ Suction catheter size: \_\_\_\_\_ French

Respiratory assessment/Tracheostomy Care	Supplies needed	Interventions
<b>Respiratory assessment - Q12h and PRN</b> <ul style="list-style-type: none"> <li>Auscultate lungs bilaterally</li> <li>Respiratory: Accessory muscles/flow rate/quality/use</li> <li>O2 saturation (%)</li> <li>Assess humidification device</li> <li>Assess for signs of infection</li> </ul> <b>Routine tracheostomy care</b> <ol style="list-style-type: none"> <li>Conduct a respiratory assessment prior to providing tracheostomy care</li> <li>Provide daily tracheostomy care:                             <ul style="list-style-type: none"> <li>Check/Clean inner cannula <b>BID &amp; PRN</b>. Disposable inner cannula changes <b>BID &amp; PRN</b></li> <li>Inspect, clean and dry stoma site <b>BID and PRN</b></li> <li>Suction PRN only</li> <li>Dressing change (if present) BID &amp; PRN</li> <li>Replace humidification device which includes filter, (Portex thermovent) <b>BID and PRN</b></li> <li>Airvo circuit is changed every 2 months; resident connector change every 1 month</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li><b>Keep</b> the obturator of the trach tube that is in situ at the bedside in case of emergency decannulation</li> <li>Vitals signs monitor, SaO2 monitor</li> <li>Perform hand hygiene before and after procedures</li> </ul> <b>Tracheostomy care supplies:</b> <ul style="list-style-type: none"> <li>Stethoscope</li> <li>PPE (face shield)</li> <li>Extra sterile disposable inner cannula</li> <li>Dressing tray</li> <li>Sterile fenestrated trach gauze (if needed)</li> <li>Sterile Q tips</li> <li>Sterile gloves</li> <li>Sterile suction catheters</li> <li>Sterile normal saline and sterile water</li> <li>Trach ties (Twill or Velcro)</li> <li>Towel to use as drape</li> </ul>	<ul style="list-style-type: none"> <li>Identify the expected outcomes and gather necessary equipment</li> <li>Keep 1 to 2 (extra) disposable inner cannulas in the resident's room</li> <li>Auscultate and assessment for abnormalities that indicate respiratory compromise</li> <li>Report any unusual findings following respiratory assessment to the physician</li> <li>Provide regular oral care</li> </ul> <b>Tracheostomy care: Refer to <u>Clinical Skills: Tracheostomy Management</u></b> Assess the integrity of tracheostomy securement device, dressing and cannula. <ol style="list-style-type: none"> <li>Inner cannula care:                             <ul style="list-style-type: none"> <li>Disposable type: Replace inner cannula with new sterile inner cannula BID &amp; PRN</li> <li>Non disposable type: Clean, dry and replace existing inner cannula BID &amp; PRN</li> </ul> </li> <li>Stoma care: BID &amp; PRN                             <ul style="list-style-type: none"> <li>Inspect, clean and dry the stoma. Apply dry trach dressing only if needed</li> </ul> </li> <li>Replace humidification filter device <b>BID and PRN</b></li> </ol>

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Note: This screenshot may not reflect the latest version of the form.

**Tracheostomy (Stable & Established) Care Plan  
Long-Term Care**

Page: 2 of 2

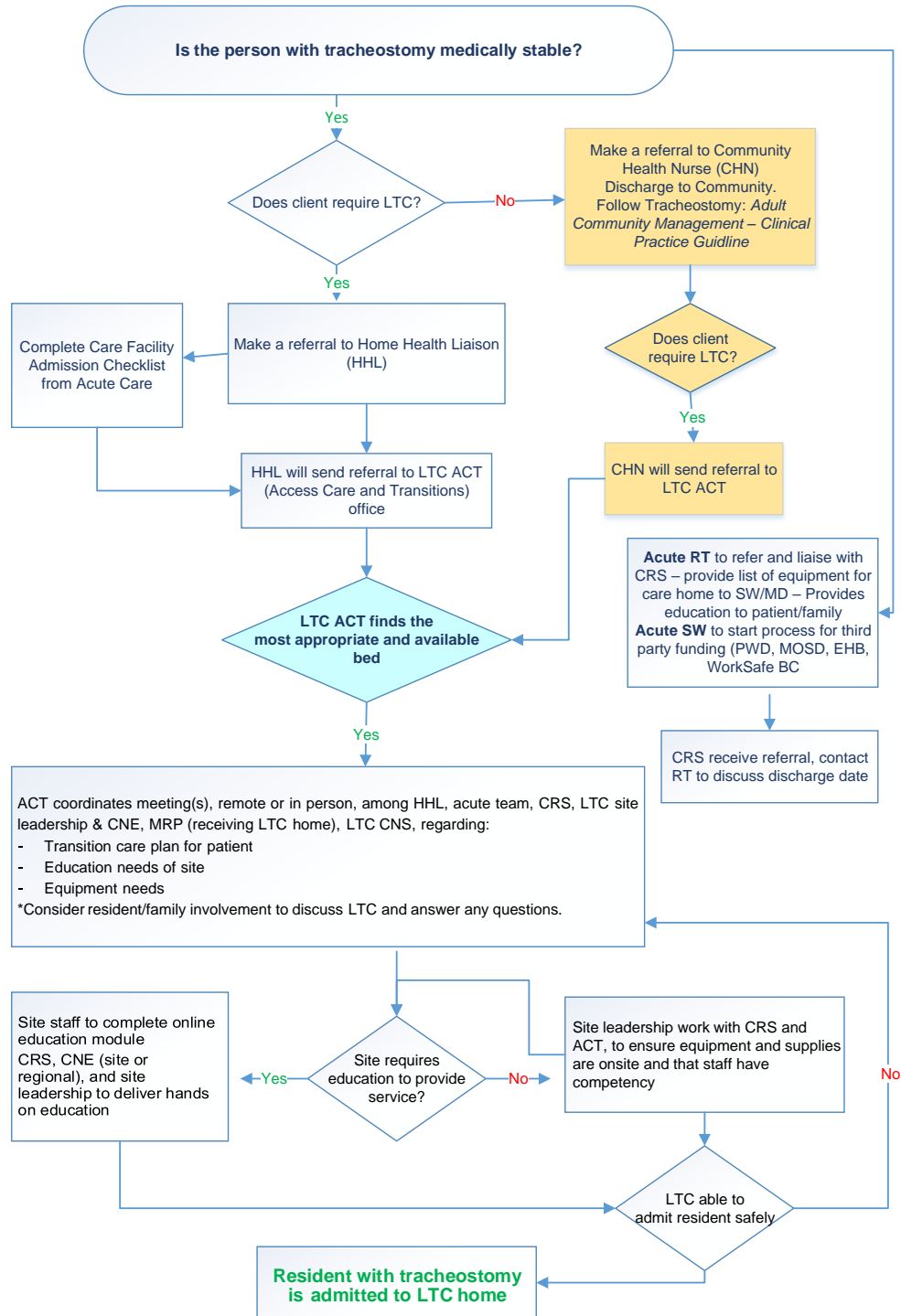
Respiratory assessment/Tracheostomy Care	Supplies needed	Interventions
<p><b>Ongoing assessment:</b></p> <ol style="list-style-type: none"> <li>1. Ensure tracheostomy securement device is secure continually</li> <li>2. Ensure emergency trach kit is available at the bedside and has all the needed supplies</li> <li>3. Ensure suction equipment is available and functioning</li> <li>4. Ensure availability of oxygen and equipment</li> </ol> <p><b>Other resident needs to be addressed:</b></p> <ul style="list-style-type: none"> <li>• Monitor for risk of aspiration</li> <li>• Ensure resident comfort and security</li> <li>• Communication needs</li> <li>• Altered body image</li> </ul>	<p><b>Emergency tracheostomy kit</b> (at the bedside): <b>Checked/Stocked Q shift &amp; PRN</b></p> <ul style="list-style-type: none"> <li>• Spare tracheostomy tubes with obturator/</li> <li>• Introducers (same size as in situ and size smaller)</li> <li>• Water based lubricant</li> <li>• Spare trach ties/holder</li> <li>• Resuscitation bag with masks (adult and round pediatric for stoma use)</li> <li>• Suction equipment</li> <li>• Oxygen (available on unit)</li> </ul>	<p><b>1. Replace trach ties weekly and PRN if needed</b></p> <ul style="list-style-type: none"> <li>• Have a second staff available to assist and stabilize tracheostomy</li> </ul> <p><b>PRN only</b> Suctioning: PRN only or as ordered.</p> <ul style="list-style-type: none"> <li>• Do not routinely instill N/S. Assess respirations/ventilation to determine if instillation is required.</li> <li>• Document type of secretions obtained from the suctioning.</li> </ul> <p><b>Monthly</b> Tracheostomy tube changeover (replacing inner and outer trach tube as ordered by prescriber): Only conducted by RT, nurse practitioner or physician</p>

Note: This screenshot may not reflect the latest version of the form.



**Appendix H: Resident with Tracheostomy (uncuffed tube) Pathway Transition to Long-Term Care Homes**

The purpose of this tool is to provide the care team in Acute, Access Care and Transitions (ACT), and Long-Term Care (LTC) with the steps to safely assess, plan, and transfer residents with tracheostomies to long-term care homes.



Permission for use obtained from: Vancouver Coastal Health. Tracheostomy and Laryngectomy - Care and Management. 2019. Policy D-00-12-30376.

## Appendix I: Tracheostomy Bedside Emergency Airway Kit Equipment List

**\*Must accompany the resident at all times.**

In **Community/Long-Term Care areas**, spare tracheostomy tubes (same type and size) with gloves, water soluble lubricant and trach ties are commonly seen.

It is recommended to have:

- a spare tracheostomy tube - same size and one size smaller
- 10cc syringe
- 1 pack water soluble lubricant and obturator (to fit tube in situ if displaced)
- Manual Ventilation Unit with oxygen tubing
- Heat and Moisture Exchanger (HME)
- Flex tube and swivel adaptor connected and ready to be used
- Face mask
- 2 oral airways

Permission for use obtained from: Vancouver Coastal Health. Tracheostomy and Laryngectomy - Care and Management. 2019. Policy D-00-12-30376.