

# 55. HIGH INTENSITY DAILY ACTIVITIES: Tracheostomy Management Policy and Procedure

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<b>Approval Date:</b> 19 Dec 2024	<b>Review date:</b> 19 Dec 2025	<b>Version:</b> 1
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## Purpose

The aim of this Policy and Procedure is to detail the process for tracheostomy support, including tracheostomy support that also requires ventilation, according to established standards and guidelines, to reduce clinical risk and ensure each participant with a tracheostomy receives appropriate suctioning and management, relevant and proportionate to their individual needs.

## Scope

The procedures apply to all Australian Quality Care staff providing tracheostomy supports, including tracheostomy supports that require ventilation, and meets relevant legislation, regulations and Standards as set out in *Schedule 1 Legislative References*.

## Applicable NDIS Practice Standards and NDIS High Intensity Support Skills Descriptors

### **Outcome**

Each participant with a tracheostomy (i.e. both fenestrated and non-fenestrated) receives appropriate suctioning and support of their tracheostomy relevant and proportionate to their individual needs, including ventilation support as needed and related equipment e.g. stoma appliances, heat / moisture exchange machines, humidifiers, nebulisers, suction bags and dressings and any required ventilator equipment.

### **Indicators (NDIS Practice Standards)**

- Each participant is involved in the assessment and development of the support plan for their specific tracheostomy suctioning and support and ventilator use where required. With their consent, the participant's health status is subject to regular and timely review by an appropriately qualified health practitioner. The plan identifies how risks, incidents and emergencies will be managed, including required actions and escalation to ensure participant wellbeing.
- Appropriate policies and procedures are in place, including timely supervision, support, resources, equipment and a training plan for workers, that relate to the support provided to each participant with a tracheostomy and those who require related ventilator support e.g. ventilator appropriate use of equipment and troubleshooting.
- All workers have completed training, relating specifically to each participant's needs for, managing any tracheostomy related incident and high intensity support skills descriptor for providing tracheostomy care (without ventilation) and supporting a person dependent on a ventilator, responsibilities include

supervision, delegation arrangements and activities, delivered by an appropriately qualified health practitioner or person that meets the high intensity support skills descriptor for tracheostomy suctioning / support and ventilator support.

### **Indicators (NDIS Skills Descriptors)**

- All workers to maintain open communication, seek regular feedback and work closely with participants to understand their specific needs, when and how to best deliver supports that meets with their timing, frequency and type of support required.
- All workers to deliver supports in ways that are least intrusive or restrictive and that fits into the participants daily routines and preferences and actively involves the participant in their support as outlined in their support plan to the extent they choose.
- Annual competency assessment of workers by appropriate qualified health professionals to be undertaken to ensure currency of skills and knowledge, awareness and understanding of the relevant support plan.
- Refreshers / assessments of competency by appropriately qualified health practitioners to be undertaken and successfully completed by the worker when the participants support plan changes, best practice requirements change or when the worker has not provided the required support in the last 3 months. Timeframe for refreshers and re-assessments can vary on the nature of supports and workers experience.
- Audit records to be maintained.

## **Definitions**

**Decannulation** - removal of a tracheostomy tube.

**Tracheal Suctioning** - a means of clearing the airway of secretions or mucus through the application of negative pressure via suction catheter.

**Tracheostomy** – a surgical opening through the trachea below the larynx. An indwelling tube is placed in the opening to overcome upper airway obstruction.

Primary reasons for tracheostomy are to:

- relieve upper airway obstruction
- allow access to the lower airway for suctioning and secretions removal
- provide a stable airway for those who require prolonged mechanical ventilation or oxygenation support.

**Tracheostomy Tube** – a curved hollow tube of rubber or plastic inserted into the trachea to relieve airway obstruction, facilitate mechanical ventilation, or remove tracheal secretions. A variety of different tracheostomy tubes are available.

**Ventilator Support** – support provided by machines that assist breathing or take over breathing completely. Ventilators move air in and out of the lungs to deliver breath to those who are physically unable to breathe themselves, or who are breathing insufficiently.

## **Policy**

Australian Quality Care will ensure participants who require tracheostomy support, including those who also require ventilation, have it carried out safely, effectively, and competently, with correct methods used by staff.

Tracheostomy support for a participant is usually required secondary to:

- respiratory failure
- chronic pulmonary disease
- neuromuscular disease
- tracheal damage / stenosis
- injury to, for instance, the chest wall or spinal cord
- paralysis
- neck or mouth difficulties and
- structural differences.

The goal of tracheostomy support is to maintain clear airways with routine suctioning.

Support workers providing tracheostomy care must:

- be competent in supporting participants reliant or dependent on ventilation
- have basic First Aid skills, and the knowledge to administer CPR and place a participant in the recovery position as clinically required.

All support workers are to work within their scope of practice appropriate to their level of training, responsibility, and experience.

## Risk Analysis

### Identified Risks

Listed below are common risks and complications associated with participants requiring tracheostomy or ventilator support. Individual risks must be assessed at initial assessment and included in participants' individual *Tracheostomy Support Plans*:

- lack of knowledge or understanding from support workers regarding safe, effective, and timely suctioning, tracheostomy and ventilation care, and emergency management
- risk of accidental decannulation when replacing tracheostomy dressings / ties
- haemorrhage
- pneumothorax
- respiratory or cardiac arrest because of accidental tube obstruction / dislodgment
- cuff leak.

Specific ventilator-related risks include:

- Ventilator Associated Pneumonia (VAP)
- nasal congestion or dry mouth
- facial sores from non-invasive ventilation (NIV) interface
- eye soreness from NIV interface caused by air leakage and
- lack of knowledge and understanding from support workers for safe and effective ventilation support and actions to take in an emergency.

### Risk Management Strategies

Strategies to reduce tracheostomy risks include:

- support workers deployed have completed high level training on tracheostomy and ventilator support and emergency management, specifically relating to each participant's needs, delivered by an appropriately qualified Health Practitioner who meets the High Intensity Support Skills Descriptors for tracheostomy and ventilator support
- support workers receive training on how to manage related incidents such as tracheostomy obstructions or accidental dislodgement, which could progress to cardio-respiratory arrest
- staff training includes identification and strategies for management of risks including actions and escalation

- two people are present at all times when replacing tracheostomy dressing ties. Old ties remain in situ until new ties are secured, to prevent decannulation
- support workers have completed basic First Aid training and have knowledge on how to administer CPR and place the participant in a recovery position
- an emergency action plan is readily available and accessible to support workers
- an information sheet that provides specific data regarding participants' tracheostomy and ventilation support and needs is placed at each participant's bedside for ease of access for support workers, health practitioners, and emergency workers.

Strategies to reduce risks for ventilator support include:

- bed elevation of 30 – 45 degrees
- assess ventilation needs regularly (if possible)
- maintain good oral hygiene (mouth and lip care)
- encourage mobility (including sitting up to improve gas exchange)
- promote adequate nutrition
- maintain aseptic techniques
- use saline nasal spray for mild nasal congestion
- use a humidifier for dry mouth, nose or throat
- clean any secretions around mouth and nose areas
- use water-based lubrication only (do not use petroleum jelly)
- staff to be provided with training and education by a health professional about proper ventilator use, how to recognise complications, and actions to be taken in managing participants who are ventilator dependent
- appropriate policies, procedures, and response plans in place and readily available to support workers for participants using a ventilator
- *Ventilator Support Plans* written by a health professional in consultation with other relevant health professionals involved in the participant's care
- *Ventilator Support Plans* to be readily accessible and available where care is provided
- regular review of *Ventilator Support Plans* and when any abnormality is observed and
- support workers to be up to date with emergency First Aid training and complete on-going training and education on how to follow operating instructions and troubleshooting on any appliance used.

## Roles and Responsibilities

To ensure Australian Quality Care's standards and commitments are met and delivered, the following actions are taken, and responsibilities assigned for tracheostomy support, including support that requires ventilation:

1. A *Tracheostomy Support Plan* has been developed for each participant and is overseen by a relevant health practitioner, and each participant is involved in the assessment and development of their *Tracheostomy Support Plan*. Other professionals that may be involved as part of the participant's multi-disciplinary team include a Respiratory Physician, Physiotherapist, Speech Pathologist, Pharmacist, and Occupational Therapist.
2. *Tracheostomy Support Plans* are up-to-date, readily available, clear, and concise, and clearly identify and describe the support needs and preferences of participants. They also include procedures for supporting a participant who uses both fenestrated and non-fenestrated tracheostomy-related equipment and appliances, such as stoma appliances, heat moisture exchange machines, humidifiers, nebulizer devices, suctioning bags, and dressings.
3. Participants are supported to seek regular and timely reviews of their health status by an appropriately qualified health practitioner.

4. Each participant's *Tracheostomy Support Plan* is communicated, where appropriate and with their consent, to their support network, other providers, and relevant government agencies. Copies of the *Tracheostomy Support Plan* are provided to the participant and readily available where care is provided.
5. Staff understand the support needs outlined in *Tracheostomy Support Plans* such as:
  - specific tracheostomy support procedures relevant to the participant's tracheostomy circuit
  - stoma care
  - what risks to look for and
  - action required to respond to risks, incidents, and emergencies.
6. Staff are provided with access to timely supervision, support, equipment, consumables, and additional staff to help replace tracheostomy dressings and ties.
7. Participants who have a tracheostomy and who also require ventilator support, have a *Ventilator Support Plan* that sets out ventilation supports, airway clearing devices, suction, manual ventilation devices, oxygen, what risks to look for and actions required to respond to risks, incidents, and emergencies.
8. Policies, procedures, and plans are in place and easily accessible to staff, including a training plan for staff, that relates to the specific support provided to each participant who requires tracheostomy support, including those who require ventilator management as well.
9. A holistic approach to tracheostomy and ventilator support is taken, consistent with current contemporary practice, and is aligned with the *Infection Control Policy and Procedure*.
10. Skilled, trained, and experienced workers are allocated to manage participants who need tracheostomy support, including those on ventilation, as support provided is high risk and complex and can be life threatening if not effectively managed.
11. Where supports are delivered by a competent worker who is not a qualified or allied health practitioner, the Registered Nurse ensures:
  - the worker is suitably trained and equipped with the skills and knowledge required for safe service delivery and maintains currency of skills and knowledge
  - competency of workers' skills and knowledge is assessed annually
  - refreshers are completed when participants' needs change, best practice requirements change, or when the worker has not provided the required support in the last three (3) months
  - supports are not provided until workers have successfully completed competency assessments and refresher training and
  - competency assessments are documented and regularly audited, with audit records and a Training and Development Register maintained.
12. Support workers who are deployed to provide tracheostomy and ventilator support have the pre-requisite knowledge and have completed training by an appropriately qualified health professional or person who meets the High Intensity Support Skills Descriptor for tracheostomy and ventilator support. They receive regular supervision, support, equipment, and consumables required to provide tracheostomy and ventilator supports.

Tracheostomy support training must include:

- basic anatomy of the respiratory system
- indicators of common problems, including infection both at the tracheostomy stoma site and in the respiratory system
- common indicators of equipment malfunction, associated risks, and action required
- warning signs of a blocked tracheostomy tube, such as blood or phlegm in the tube, breathing difficulties, or an inability to pass a catheter through the tracheostomy tube
- techniques to respond to tube blockages, such as suctioning, humidification management, and

- awareness of when to escalate to emergency services or an appropriate health professional
- first aid techniques to check and clear airways, administer CPR, and place a person in a recovery position
- basic knowledge of stoma care and awareness of common risks, problems and signs of infection or deteriorating health, such as sore skin, leakage, ballooning, pancaking, bleeding, hernia, and prolapse
- when and how to involve or get advice from the appropriate health practitioner
- monitoring circuits and the need for cuff inflation or deflation
- trouble shooting for appliances
- personal hygiene and infection control procedures
- cleaning and maintaining suction equipment
- supporting routine tube tie changes (as per the *Tracheostomy Support Plan* with support of an appropriate Health Practitioner)
- maintaining appropriate charts and records
- emergency procedures when deteriorating health or infection is detected and
- reporting responsibilities including handover, recording observations, and incident reporting.

Ventilator support training must include:

- basic anatomy of the respiratory system
  - musculoskeletal problems associated with respiration, and common conditions that can result in respiratory failure, including conditions specific for the participant
  - principles for infection control and hygiene, e.g., hand washing, use of gloves, disinfecting the environment, and safely handling ventilator equipment such as the mask
  - signs and symptoms of respiratory distress, for example, drowsiness, reduced alertness, breathing rate, nose flaring, colour changes, wheezing, bracing upper body, and large chest movements when breathing
  - indicators of deteriorating skin condition, and techniques to ensure breathing masks are fitted and positioned correctly to minimise discomfort and reduce the risk of pressure sores
  - signs of a healthy stoma and how these can change over time
  - indicators and action required to respond to common health problems at the stoma site, such as wetness, or signs of infection or inflammation
  - common indicators to initiate emergency procedures, including the use of back up and manual ventilators (e.g., loss of electricity, or battery failure in the ventilator machine)
  - causes of common alarms and action required to resolve them, e.g., a high airway pressure alarm
  - when and how to involve or get advice from the appropriate health practitioner
  - fitting and adjusting breathing masks and
  - reporting responsibilities, including handover, recording observations, and incident reporting (handover may include observations on positioning, length of time on the ventilator, and the participant's preferred communication methods).
13. In addition to the above, staff must also complete all relevant eLearning modules available on the NDIS Commission's website, keep their first aid knowledge and CPR training up-to-date, and be trained on the specific needs of each participant, including the appropriate use of equipment.
  14. The *Tracheostomy Support Plan* and/or *Ventilator Support Plan* is signed by the participant, their health practitioner and the Registered Nurse, agreeing to the Plan and providing informed consent.
  15. *Tracheostomy Support Plans* and *Ventilator Support Plans* are reviewed, evaluated, and updated regularly, and when changes occur.
  16. Referrals are facilitated by the [Position Title] to other relevant health professionals, where required, in consultation with the participant and their health practitioner, e.g., Respiratory Consultant.

17. Australian Quality Care accesses appropriate equipment for participants who require tracheostomy or ventilator support and provides staff with the required training on equipment use and maintenance.
18. Staff communicate with participants using their preferred communication method, e.g., use of devices, aides, or language resources as needed, e.g., picture cards.
19. The Registered Nurse monitors compliance with the NDIS Practice Standards and High Intensity Support Skills Descriptors via an audit process and stakeholder feedback surveys, to ensure service provision is appropriate and effective.
20. The Registered Nurse:
  - ensures all support workers undertake the necessary training
  - maintains training records and appropriate registrations and
  - monitors staff compliance.
21. All health professionals and consulting Health Practitioners are accountable for their own practice and are aware of their own legal and professional responsibilities within the Code of Practice of their professional body.

## Precautions/Considerations

Check and ensure participant consent and *Support Plans* are current for tracheostomy and ventilator support.

Replacing tracheostomy dressings or ties requires two workers to be present due to the high risk of accidental decannulation.

Support workers must be experienced and competent in supporting participants reliant on ventilation via tracheostomy tube and have the required First Aid skills and knowledge to administer CPR.

Support workers must have access to a working and always charged phone and / or mobile phone for emergency contact.

It is recommended that all participants requiring tracheostomy support have continuous pulse oximetry (SpO<sub>2</sub>) during all periods of sleep (day and night) and when out of line of sight of support workers.

For participants with a newly established tracheostomy it is recommended that tracheal dilators are available at participants' bedsides until after the first successful tube change.

An information sheet is to be placed at each participant's bedside for ease of access to workers, Health Practitioners, and emergency workers that provides specific data regarding:

- date of last tracheostomy tube change
- type and size of tracheostomy tube (including inner diameter, outer diameter, length cuffed or uncuffed tube)
- cuff inflation
- suctioning distance
- critical alerts.

## Equipment Required

- Personal Protective Equipment (PPE) – gloves, masks, disposable gowns, etc.

- Other participant-specific equipment, where required, e.g., humidifier, suction equipment, oxygen equipment.
- Tracheostomy kit containing the following and any other participant-specific equipment:
  - one tracheostomy tube of the same size in situ (with introducer if applicable)
  - one tracheostomy tube one size smaller (with introducer if applicable)
  - spare inner tubes for double lumen trachea tubes (if applicable)
  - spare ties (cotton and/or Velcro)
  - scissors
  - resuscitation bag and mask (appropriate size for participant)
  - one way valve (community use only)
  - wall or portable suction equipment
  - appropriate size suction catheters
  - 0.9% sodium chloride ampoule and 1ml syringe
  - one Heat Moisture Exchanger (HME) filter or tracheostomy bib
  - fenestrated gauze dressing
  - cotton wool applicator sticks
  - water based lubricant for tube changes
  - mucous trap with suction catheter for emergency suction
  - occlusive tape (i.e., sleek)
  - 10 ml syringe if cuffed tube in situ.
- For participants who have tracheostomy support with ventilation, appropriate ventilation equipment as per their *Support Plan* must be available, e.g., suction machine, oxygen, and other participant-specific equipment.

## Procedures

As tracheostomy support and tracheostomy support with ventilation are highly personal in nature and high risk, staff need to maintain communication and work closely with participants to understand their specific needs, and when and how to best deliver supports that meet the participant's preferences and daily routines.

### Tracheostomy Support Procedures

**Note: Specific procedures for tracheostomy support are covered in Appendices (1 to 5)**

1. Check and confirm consent is current for tracheostomy Management and that the participant has received information related to any procedure to be performed and given appropriate consent.
2. Read and understand the *Tracheostomy Support Plan* and perform duties / procedures only within scope of practice.
3. Read any Advanced Care Directive in place.
4. Ensure the participant's privacy and dignity, as well as a safe environment, prior to commencing support.
5. Check for any specific issues, or adjustments needed, at the time of support being provided.
6. Check the required equipment is available and ready for use.
7. Communicate with participant as per their preferred communication method e.g., use of



devices, aides, or language resources as needed, e.g., picture cards.

8. Follow strict personal hygiene and infection control procedures before and after attending to the suctioning of tracheostomy.
9. Respect participants' privacy and dignity at all times.
10. Support the appropriately qualified health practitioner with routine tube tie changes and dressing changes (note tracheostomy tie and strap changes are to be carried out by a qualified health practitioner and need a second person to assist, to prevent accidental de-cannulation).
11. Provide tracheostomy support:
  - monitor the participant's skin condition daily, maintaining the cleanliness of the stoma area and changing dressings. Keep the area clean and dry to maintain skin integrity and avoid skin breakdown
  - daily cleaning of the stoma is recommended using a 0.9% sterile saline solution
  - perform routine suctioning to maintain patency of the participant's airway
  - monitor, report, and document abnormal secretions, clean and maintain suction equipment, and support routine tube tie changes (two workers to be present)
  - maintain appropriate recording charts and documentation
  - identify and immediately respond to any airway obstructions, abnormal breathing and secretions, and report to the [Position Title] and the health practitioner, or escalate to emergency services
  - implement appropriate emergency procedures if the participant's health deteriorates, or infection is observed
  - humidify the trachea to prevent thick mucus and tube blockage
  - undertake cuff and cuff pressure monitoring and management
  - undertake regular oral hygiene
  - maintain cleanliness and patency of the inner cannula
  - monitor and assist with swallowing.
12. As the humidification attached to a tracheostomy can make the participant feel hot, ensure they have a cooling device (e.g., fan, wet face washer on forehead, light bedlinen, frequent washes) for comfort.
13. **Emergency Management:**

Signs of respiratory distress displayed by participants may include:

  - laboured breathing
  - decreased or gurgling breath sounds
  - no breath sounds
  - oxygen desaturation
  - high inspiratory pressure if participants is mechanically ventilated
  - unable to pass the suction catheter due to blockage.

Possible causes of respiratory distress are:

  - partial or complete airway obstruction due to blockage
  - tracheostomy tube dislodged
  - persistent cuff leak
  - faulty oxygen or ventilation device
  - ineffective humidification
  - tracheostomy in false passage.

### Action Plan

Call emergency services on "000".

Immediate steps to take include:

- Provide oxygen via tracheostomy or face mask
  - Manually ventilate if required with a bag-valve mask
  - Call for assistance
  - Re-assure the participant
  - Position the participant's head / neck and the tracheostomy tube to the midline. If the tube is not dislodged and obstruction is suspected apply suction. If the tube is obstructed deflate the cuff if one is present. (Note: only an appropriately trained worker may insert a new tube)
  - monitor patency of the tube and whether the participant is responding to suction
  - if the participant's respiratory distress eases, assess if airflow is present and unobstructed and whether the oxygen is adequate.
  - ensure a full clinical assessment by the Health Practitioner is undertaken to identify the cause of the respiratory distress.
14. Keep *Tracheostomy and Ventilator Support Plans* updated, reflecting current care and interventions required.
15. Stoma Care
- check and clean skin around tracheostomy tube and stoma with saline daily
  - apply dry gauze dressing to prevent irritation
  - do not apply powders or cream unless prescribed and
  - observe and report any abnormal changes, infection, or inflammation to the relevant health practitioner.
16. Actively involve the participant to the extent they choose, check any changes to tracheostomy support they are receiving, and any other areas where the *Tracheostomy Support Plan* is not meeting participant needs.
17. Encourage feedback from the participant and request changes from attending health professionals to their *Tracheostomy Support Plan* as required.
18. Identify, document, and report information where *Tracheostomy Support Plans* are not meeting participants' needs.
19. Undertake on-going training and education and maintain, up to date First Aid Knowledge (especially relating to techniques for addressing tracheostomy and ventilator support), and participate in regular competency assessments to ensure practices are safe and up to date with current best-practice guidelines for supporting participants with tracheostomy and or ventilator support.

## Ventilator Support Procedures

See the *Ventilator Support Policy and Procedure* for specific information on ventilator support procedures.

## Supporting documents

Procedural guidelines for tracheostomy Management are covered in the following documents for support workers and can be used for participants' reference.

Documents relevant to this policy and procedure include:

- *Ventilator Support Policy and Procedure*
- *Infection Prevention and Control Policy and Procedure*
- *Management of Medication Policy and Procedure*

- *Management of Waste Policy and Procedure*
- *Reportable Incident, Accident and Emergency Policy and Procedure*
- *Tracheostomy Support Appendices 1 to 5*
- *Tracheostomy Support Plans*
- *Staff Training Plan*
- *Staff Training and Development Register*
- *Staff Performance Reviews*
- *Tracheostomy Support Competency Assessment*
- *Incident Forms*
- *Service Agreements*
- *Continuous Improvement Plan*

## References

- *Non-invasive Ventilation Guidelines for Adult Patients with Acute Respiratory Failure: A Clinical Practice Guideline*, Sanchez, D., Smith, G., Piper, A., and Rolls, K., Agency for Clinical Innovation, NSW Government, 2014
- *NDIS Practice Standards: Quality Indicators: High Intensity Support Skills Descriptors December 2022*, NDIS Quality and Safeguards Commission, December 2022
- *Local Operating Procedure: Medication Administration*, The Royal Hospital for Women NSW, 19 October 2017

## Monitoring and review

This Policy and Procedure will be reviewed by the Board annually, or sooner if changes in legislation occur or new best practice evidence becomes available. Reviews will incorporate staff, participant, and other stakeholder feedback, and identified continuous improvement as relevant.

Review of procedures will assess if the implementation is efficient, effective, and able to be actioned.

Australian Quality Care's *Continuous Improvement Plan* will be used to record improvements identified and monitor the progress of their implementation. Where relevant, this information will be considered as part of Australian Quality Care's future service planning and delivery processes.

## Document Control

Version No.	Issue Date	Document Owner
1	19/12/2024	Kelly Masterton
<b>Version History</b>		
Version No.	Review Date	Revision Description