

Ventilation Management Policy, Guidelines & Framework

Current Version

Service Area	Disability, Aged, Community	Version	1.0
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Modification History

Version	Date	Author	Approved by	Description of change
1.0	10/2022	Stacey Madden	GL / CL	New policy

In conjunction with:

All NCC Policy

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Ventilation Management

POLICY STATEMENT

To ensure each participant requiring ventilator management receives appropriate support relevant and proportionate to their individual needs and the specific ventilator used.

SCOPE

This policy applies to all employees of National who support any participant with ventilation requirements.

ALERT

Each participant that requires ventilation will require their own individualised management plan / procedures.

DEFINITION

Non-Invasive Mechanical Ventilation: a simple method of assisting a participant's breathing without using an invasive airway (tracheostomy tube). Example: Continuous Positive Airway Pressure (CPAP) or Bilevel Positive Airway Pressure (BPAP or BiPAP)

Invasive Mechanical Ventilation: is a lifesaving intervention for participants with respiratory failure. **Ventilation:** carried out via an artificial airway (tracheal cannula) to the trachea.

NIV: is delivery of mechanically assisted or generated breaths without placement of an artificial airway using a mask or similar interface. This technique is distinguished from those which bypass the upper airway with an endotracheal tube, laryngeal mask, or tracheostomy and are therefore considered invasive. This is the preferred term and supersedes BPAP, BiPAP and BIPAP. BiPAP and BIPAP are registered trade names for NIV modes on ventilators from specific manufacturers.

CPAP: is positive airway pressure therapy throughout the respiratory cycle to spontaneously breathing patients. One nominated pressure splints the airway open throughout the respiratory cycle thereby maintaining oxygen saturation, functional residual capacity and preventing alveolar collapse.

Inspiratory Positive Airway Pressure (IPAP): is titrated to maintain tidal volume, support and augment ventilation, reduces the work of breathing and thereby reduces CO2 retention. **Expiratory Positive Airway Pressure (EPAP):** is titrated to eliminate airway obstruction and prevent end expiratory collapse of airways and thereby able recruit alveoli. Combination of above two thereby maintains oxygenation.

Mode: Delivery system selected on the machine – may be CPAP, Spontaneous, Spontaneous/Timed or Timed.

Spontaneous Mode (S): The machine provides ventilatory support in response to the patient's breathing effort but provides no back-up safety rate, should the patient not trigger the machine. This mode is referred to 'Spontaneous' mode on NIV machines **Spontaneous Timed Mode (ST):** The machine provides ventilatory support in response to the patient's breathing effort but provides back-up safety rate, should the patient not trigger the machine. This mode is referred to 'spontaneous / timed' mode on NIV machines (S/T) **Timed Mode (T):** There is no patient effort required and the ventilator provides full ventilatory support. On NIV machines this is referred to as 'timed' mode (T)

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PRINCIPLES FOR VENTILATION MANAGEMENT

- To improve oxygenation and ventilation
- Confirm the need for ventilation and recognise the need for suctioning and follow procedures to clear airways as required.
- To follow personal hygiene and infection control procedures;
- To operate a ventilator for operation (identify and connect or assemble components of ventilation equipment according to instructions, fit the breathing mask)
- To start ventilation and monitor that it is working effectively,
- Trouble-shooting procedures to respond to alarms and maintain equipment.
- To maintain charts/records;
- To recognise and respond to signs that airways are obstructed;
- To implement emergency procedures, deteriorating health or infection.

ROLES AND RESPONSIBILITIES

Clinical Lead is responsible for the overall clinical management of a high intensity supported participant's care. This policy is to be used in conjunction with National Community Care's Tracheostomy Care and Management Policy and Stoma Care Policy (where required). The participant's care plan is also included and overseen by a relevant health practitioner (e.g. Medical doctor, Registered Nurse). This care plan will be regularly reviewed where procedures and information will be given to the participant/carer/ advocate.

All participants are ensured their desired level of involvement is respected and maintained. NCC will ensure that each participant requiring Ventilation Management will receive support for care of their equipment and components as well as their tracheostomy and/or stoma, relevant and proportionate to their individual needs.

Please Note: That any cares required outside of what's written in this policy and procedure must be performed by a qualified health practitioner e.g. Medical Doctor or Registered Nurse. In some cases, Staff may respond when a tracheostomy and/or ventilation requires emergency procedures to be implemented; there must be active oversight by a health practitioner Registered Nurse.

Carers supporting the participant will be provided with resources and individualised parameters for the participant. NCC will endeavour to always roster a senior carer to lead and train new and/or unfamiliar carers with the participants individualised supports.

CARE PLAN

National Community Care participant care plan is developed with the involvement of the participant/carer/advocate, Program Coordinator and health practitioners (e.g. Registered Nurse). Included in the plan is how to care for the participants tracheostomy and ventilation requirements. See Care Planning Policy.

Staff are to nature and consequences of a participant's respiratory condition follow documentation procedures, including:

- How to identify and connect or assemble components of ventilation equipment according to instructions, and operate a ventilator and cleaning procedures,
- How to fit the breathing mask and equipment,
- How to monitor that the ventilation is working effectively, following trouble-shooting procedures to respond to alarms and maintain equipment, and recording requirements

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- Reporting on signs and symptoms such as: unexplained dyspnoea; severe coughing; bleeding around tracheostomy site; haemoptysis; changes in consistency and colour of secretions; erythema or soreness around stoma.
- Immediate intervention strategies for: signs of respiratory distress, pressure sores and discomfort, common problems with ventilation and the actions required,
- Incident and emergency procedures

STAFF TRAINING

National Community Care will train their Staff in ventilation management (invasive and non-invasive) subject to participant requirements. The Staff will hold relevant and additional qualifications and experience. National Community Care Staff will be competent in the high intensity support descriptor: support a person dependent on ventilation and can implement emergency procedures relevant to the participant and employment scope of practice.

PROCEDURE BASICS

Note: please refer to each participants individualised care plan.

- Access Non-Invasive Ventilation resources through employee resources page: <u>Training Resources | NCC (nationalcommunitycare.com.au)</u>
- Have a basic understanding why the participant requires the NIV
- Familiarise yourself with the participant's individualised care plan requirements
- Familiarise yourself with the participant's machine.
- The manufacture manual will be assessable within the home
- Cleaning guideline will be available within the home
- Troubleshooting guide will be available within the home
- 24/7 on call support to NCC
- Call 000 in the event of respiratory distress and/or medical emergency.

REFERENCE:

Ventilation Non-Invasive Adults – ACT Health