DOCUMENT 3

Research Request – Respiratory Support Practice Guidance

Brief	**I am requesting some assistance from our research team for developing the Respiratory practice guidance.** Tracheostomy supports: • Clinical guidelines for tracheostomy indications and care – change of tracheostomy and regular maintenance care • Referring/monitoring health professionals – e.g. Respiratory Specialist of GP • Evidence that this support is directly related to any specific disabilities (e.g. spinal cord injury above C3 level) • Typical equipment required Constant Positive Airway Pressure (CPAP) • Clinical guidelines for CPAP use and indications • Referring/monitoring professionals – e.g. Respiratory Specialist of GP • Evidence that support is directly related to any specific disabilities (assist in sleeping and breathing for people with compromised breathing function as a result of their disability). • Typical equipment and consumables (such as mask, head straps and tubes) Same for: • Bilevel Positive Airway Pressure (BIPAP) • Air Humidifier • Cough assist machine • Suction machine
Date	26/08/19
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Researchers	Craig s47F - personal (Tactical Research Advisor – TAT) Aanika s47F - personal p (Senior Research Officer – TAT)

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Summary

As outlined in the DRC communique/policy docs all of the NDIS funded disability related health supports must be a regular part of a participant's daily life, and result from their disability.

For example the NDIS will not fund:

- A CPAP machine for a participant with autism and obesity who has sleep apnoea. Even though sleep apnoea may be a daily issue for the participant, it is not disability related; or
- An air humidifier if there was no assessable link to respiratory / skin health or comfort related to their disability.

Additionally, for any of these medical equipment items to meet R & N the need must be permanent and lifelong. For example, if a participant has a temporary, time-limited need for:

- A ventilator/portable suction machine to assist with care for a temporary tracheostomy post-surgery (acute episode), this is not appropriately funded by the NDIS. State and territory health systems have community health programs for this.

Respiratory supports – link to specific functional impairments/disability types

Machine / equipment	Disability related health conditions that may result in R & N need for this medical equipment
Ventilator	The requirement for the **permanent disability related** use of a ventilator may be attributable to: • spinal cord injuries, • health conditions that paralyse or weaken neck muscles or nerves involving breathing, • neuromuscular disorders • chronic respiratory failure • diaphragm paralysis • Guillan Barre Syndrome • Cystic Fibrosis • lung or heart issues resulting in permanent respiratory failure or • Acute injuries to the chest region resulting in permanent respiratory failure[1]. If a NDIS participant has a permanent tracheostomy, and consequently requires the use of a ventilator, this will now be fully funded by the NDIS. **<u>Paediatric diseases that are accompanied by respiratory failure and may require ventilation therapy</u>** **a) Lung Diseases** • Cystic Fibrosis

[1] https://intensivecareathome.com/mechanical-home-ventilation-guidelines/

Machine / equipment	Disability related health conditions that may result in R & N need for this medical equipment
	• Bronchopulmonary Dysplasia **b) Neuromuscular Disorders** • Duchenne's muscular dystrophy • Spinal muscular atrophy • Congenital muscular dystrophy • Myotonic dystrophy • Myopathy (congenital, mitochondrial, storage diseases) **c) Diseases und Syndromes with Primary and Secondary Thoracic Deformities** • Asphyxiating thoracic dystrophy • Achondroplasia • McCune-Albright Syndrome • Cerebral palsy • Meningomyelocele **d) Disorders of Central Respiratory Regulation** • Congenital central hypoventilation (Undine Syndrome) • Acquired central hypoventilation after trauma, encephalitis or CNS degeneration • Hydrocephalus with increased cranial pressure • Arnold Chiari malformation **e) Obesity Hypoventilation Syndrome** • Morbid alimentary obesity • Prader-Willi Syndrome **f) Diseases with primary, non- curable obstruction of the upper airway (when CPAP-therapy is inadequate)** • Down Syndrome • Mitochondriopathies • Mid-facial hypoplasias (Pierre-Robin Syndrome and others) • Morbid alimentary obesity

Machine / equipment	Disability related health conditions that may result in R & N need for this medical equipment
	• Prader-Willi Syndrome[2]
Portable suction machine	The requirement of a portable suction machine usually accompanies the use of a ventilator. NDIS participants who require a ventilator would also usually require a portable suction machine.
Air humidifier	Participants with tracheostomies who are using a ventilator also commonly require a humidifier. The requirement for the **permanent disability related** use of an air humidifier is commonly attributable to: • Disabilities resulting in compromised skin integrity or respiratory comfort An air humidifier may also be required by participants with tracheostomies.
Cough assist machine	Participants with tracheostomies who are using a ventilator also commonly require a cough assist machine to remove/prevent build-up of secretions. The requirement for the **permanent disability related** use of a cough assist machine is commonly attributable to: • Muscular dystrophy • Cerebral Palsy • Motor Neurone Disease The cough assist device is to be used with patients who present with respiratory compromise and restricted lung patterns. These patients present frequently with; Decreased lung volumes, Retention of secretions, Impaired or absent cough, Increased work of breathing. The CAD can be used with a tracheostomy, via a facemask or mouthpiece with a nose clip[3]
BPAP and CPAP	The requirement for the **permanent disability related** use of a CPAP/BiPAP is commonly attributable to: • Neurological conditions that disturb breathing • Participants with sleep apnoea resulting from central sleep apnoea NDIS participants who require a CPAP or BPAP machine may also require an air humidifier to reduce nasal and eye dryness. People with down syndrome commonly require the use of a CPAP machine due to compromised sleeping. Anatomy accounts for many of the reasons why there is a higher incidence of obstructive sleep apnea (OSA) in individuals with Down syndrome. Some of those factors include: central apnea, low muscle tone in the mouth and upper

[2] https://intensivecareathome.com/mechanical-home-ventilation-guidelines/
[3] https://www.mascip.co.uk/wp-content/uploads/2015/10/Physiotherapy-use-of-Cough-Assist-Devices-or-Mechanical-Insufflation-BT-policy-general-1.pdf

Machine / equipment	Disability related health conditions that may result in R & N need for this medical equipment
	airway, poor coordination of airway movements, narrowed air passages in the midface and throat, a relatively large tongue, and hypertrophy (enlargement) of adenoid and tonsillar tissues. Increased upper airway infections and nasal secretions and a higher incidence of obesity further contribute to collapse and obstruction of both the oropharynx and the hypopharynx when the individual is sleeping[4].

Tracheostomy

When a participant requires the use of a ventilator, it is common to also require a portable suction machine, air humidifier and for some participants, also a cough assist machine. These items collectively maintain respiratory health.

Some participants may not require 24 hour attendant care for their ventilator because they have family members or other informal supports who are willing and able to monitor the ventilator.

Some participants may require a ventilator for non-disability related reasons, and therefore the ventilator and associated attendant care may be more appropriately funded through alternative schemes or systems.

- Clinical guidelines for indication and use

The American Association for Respiratory Care provides a Clinical practice Guideline for Long-term invasive mechanical ventilation in the home[5]. These clinical guidelines outline the required equipment, alarm and personnel required to safely deliver home ventilation. It also provides information about the frequency and monitoring of ventilation.

Basically, the article states that all of these things need to be determined in an individualised care plan created by the person's physician and that anyway providing care needs to be appropriately trained and qualified.[6]

A provider website includes the following information:

- This intensive care at home – mechanical home ventilation guidelines website provides comprehensive information about methods of home ventilation, associated consumables, standards of care, appropriate qualifications, monitoring and documentation, cough secretion and management, special considerations for paediatric ventilation and safety considerations7.
- Note: INTENSIVE CARE AT HOME™ is a specialised niche Intensive Home Care Nursing service provider, providing Quality of Life and/or Quality of-end-of Life for long- term mechanically ventilated Adults and Children with Tracheostomy and their Families. The service was founded in late 2011, by the Director Patrik Hutzel who has more than 15 years international Critical Care Nursing Experience in Germany, the United Kingdom and Australia. It is unclear if they are a NDIS provider.

[4] https://www.ndss.org/resources/obstructive-sleep-apnea-syndrome/
[5] https://www.aarc.org/wp-content/uploads/2014/08/08.07.1056.pdf
[6] https://www.aarc.org/wp-content/uploads/2014/08/08.07.1056.pdf
[7] https://intensivecareathome.com/mechanical-home-ventilation-guidelines/

In 2013 the **NSW Agency for Clinical Innovation** produced Clinical Practice Guidelines for the Care of Adult Patients in Acute Care Facilities with a Tracheostomy. The guidelines were developed to support local health districts and/or hospitals to develop local policies and practices that map to their specific patient population. The recommendations apply to adult patients with a temporary or permanent tracheostomy tube who are inpatients in acute care facilities, and include:

- Each hospital should establish referral processes to the MDT to ensure timely assessment and intervention.
- Patients may require re-training to enable them to become more independent, especially regarding activities of daily living (ADL). In addition, home modifications may also be necessary to facilitate discharge planning.
- Patient/caregiver competencies where *home ventilation* will be used.
- Clinicians caring for patients with a tracheostomy must be provided with a continuing professional development program that prepares them to provide safe and effective care of patients with a tracheostomy. [8]

➢ Referring/prescription and monitoring by health professionals?

Nothing could be sources other than within the NSW recommendations above.

➢ Typical equipment and associated consumables required

People with tracheostomies may require several pieces of equipment and associated consumables which are explained in the table below.

Machine / equipment	R & N consumables per annum
Ventilator	This mechanical home ventilation guidelines website has a lot of information about the consumables associated with ventilators.[9] **The equipment required for invasive Tracheostomy ventilation will include at a minimum** **1.** Tracheostomy tube and replacements, including inner cannulas **2.** Dressings for Tracheostomy site **3.** Volume-cycled ventilator with appropriate alarms and humidifier **4.** Backup ventilator for primary ventilator failure **5.** Handheld resuscitation bag with Tracheostomy adapter **6.** Suction device with catheters for secretion removal **7.** Backup power supply for ventilator (battery or generator)[10] **The equipment required for Non- Invasive ventilation at a minimum includes the following:**

[8] https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0005/181454/ACI_Tracheostomy_CPG.pdf

[9] https://intensivecareathome.com/mechanical-home-ventilation-guidelines/

[10] https://intensivecareathome.com/mechanical-home-ventilation-guidelines/

	1. Pressure- or volume-type ventilator **2.** Appropriate interface mask or mouthpiece **3.** Secretion management program or device **4.** Backup power supply for ventilator (battery or generator)

Suction Machine

Endotracheal suctioning (ETS) is one of the most common procedures performed in patients with artificial airways. It is a component of bronchial hygiene therapy and mechanical ventilation that involves the mechanical aspiration of pulmonary secretions from a patient's artificial airway to prevent its obstruction. The procedure includes patient preparation, the suctioning event, and follow-up care.

There are two (2) methods of endotracheal suctioning based on the selection of catheter: open and closed. The open suctioning technique requires disconnecting the patient from the ventilator, while the closed suctioning technique involves attachment of a sterile, closed, in-line suction catheter to the ventilator circuit, which allows passage of a suction catheter through the artificial airway without disconnecting the patient from the ventilator.

There are also two (2) methods of suctioning based on the catheter suction depth selected during the procedure: deep and shallow. Deep suctioning is defined as the insertion of a suction catheter until resistance is met, followed by withdrawal of the catheter by 1 cm before application of negative pressure, and shallow suctioning as the insertion of a suction catheter to a predetermined depth, usually the length of the artificial airway plus the adapter[11].

This journal article also provides information about the setting that suctions may be performed (Hospital, Extended care facility, Home, Out-patient clinic, Physician's office, Transport vehicle)[12].

It also provides information on associated care, monitoring, assessment of need, assessment of outcomes and the actual procedure.

- Clinical guidelines for indication and use

A journal article from 2010 by the American Association for Respiratory Care examining endotracheal suctioning of mechanically ventilated patients with artificial airways concludes that:

> (1) It is recommended that endotracheal suctioning should be performed only when secretions are present, and not routinely;
>
> (2) It is suggested that pre-oxygenation be considered if the patient has a clinically important reduction in oxygen saturation with suctioning;
>
> (3) Performing suctioning without disconnecting the patient from the ventilator is suggested;
>
> (4) Use of shallow suction is suggested instead of deep suction, based on evidence from infant and pediatric studies;

[11] https://www.aarc.org/wp-content/uploads/2014/08/06.10.0758.pdf
[12] Page 759.

(5) It is suggested that routine use of normal saline instillation prior to endotracheal suction should not be performed;

(6) The use of closed suction is suggested for adults with high FIO2, or PEEP, or at risk for lung derecruitment, and for neonates;

(7)Endotracheal suctioning without disconnection (closed system) is suggested in neonates;

(8) Avoidance of disconnection and use of lung recruitment maneuvers are suggested if suctioning-induced lung derecruitment occurs in patients with acute lung injury;

(9) It is suggested that a suction catheter is used that occludes less than 50% the lumen of the endotracheal tube in children and adults, and less than 70% in infants;

(10) It is suggested that the duration of the suctioning event be limited to less than 15 seconds [13].

A clinical guideline has been developed by Intensive Care NSW, to provide clinicians with recommendations to guide the development of local policy/procedures in related to suction through an artificial airway in critically ill adult patients in NSW acute care facilities. [14]

- Referring/prescription and monitoring by health professionals?

No information could be sourced.

- Typical equipment and consumables required

This information is covered off in the tracheostomy table above. Most participants with a ventilator will also require suctioning.

Air Humidifier

- Clinical guidelines for indication and use

A journal article from 2012 by the American Association for Respiratory Care investigating humidification during invasive and non-invasive mechanical ventilation provides the following information:

- When the upper airway is bypassed during invasive mechanical ventilation, humidification is necessary to prevent hypothermia, disruption of the airway epithelium, bronchospasm, atelectasis, and airway obstruction. In severe cases, inspissation of airway secretions may cause occlusion of the endotracheal tube.1 While there is not clear consensus on whether or not additional heat and humidity are always necessary when the upper airway is not bypassed, such as in non-invasive mechanical ventilation (NIV), active humidification is highly suggested to improve comfort.2-7 Two systems, active humidification through a

[13] Page 758 https://www.aarc.org/wp-content/uploads/2014/08/06.10.0758.pdf
[14] https://www.aci.health.nsw.gov.au/networks/icnsw/intensive-care-manual/statewide-guidelines/suctioning-an-adult-icu-patient

heated humidifier (HH) and passive humidification through a heat and moisture exchanger (HME), are available for warming and humidifying gases delivered to mechanically ventilated patients. There are 3 types of HME or artificial nose: hydrophobic, hygroscopic, and a filtered HME[15].

- Humidification is recommended on every patient receiving invasive mechanical ventilation. Active humidification is suggested for NIV, as it may improve adherence and comfort [16]

➢ Referring/prescription and monitoring by health professionals?

No information could be sourced.

➢ Evidence that this support is linked with any specific disabilities?

See "Respiratory supports – link to specific functional impairments/disability types" table above.

➢ Typical equipment and consumables required

The basic parts of a humidifier:

- Water Control Valve (Float): Allows the humidifier to receive water flow
- Fan: The fan assists the evaporation of the water by blowing air into the wick. (Not in all humidifiers)
- Reservoir: The reservoir holds the water, which is needed to produce evaporation.

Other components that are needed for a humidifier to operate, but are not in all types, are:

- Wick (Filter)
- Evaporator Pad
- Heating Element [17]

Cough Assist Machine

Cough assist machines are also referred to as Mechanical Insufflation-Exsufflation. Mechanical Insufflation-Exsufflation (MIE) or a Cough Assist Device (CAD) is the use of positive airway pressure which rapidly changes to negative pressure to assist the patient's cough. Patients for a wide variety of reasons and conditions are unable to cough or clear airway secretions effectively due to reduced peak cough flow. These devices assist in the mobilisation and clearance of bronchial secretions by inflating the lungs. MIE is an alternative to suctioning providing decreased mucosal trauma and increased patient comfort[18].

➢ Clinical guidelines for indication and use

A 2019 policy guideline for Derby & Derbyshire in the UK, states: "*There is currently insufficient evidence to support the use of Mechanical Insufflation-exsufflation (MI-E) for patients with neuron*

[15] Restrepo, RD & Walsh BK, 'Humidification During Invasive and Noninvasive Mechanical Ventilation: 2012', American Association for Respiratory Care, *Respiratory Care*, May 2010 Vol 57 No 5, Page 782 <http://www.rcjournal.com/cpgs/pdf/12.05.0782.pdf> accessed 23 August 2019.
[16] Page 786 http://www.rcjournal.com/cpgs/pdf/12.05.0782.pdf
[17] http://www.lumacomfort.com/article/how-your-humidifier-works.htm
[18] https://www.mascip.co.uk/wp-content/uploads/2015/10/Physiotherapy-use-of-Cough-Assist-Devices-or-Mechanical-Insufflation-BT-policy-general-1.pdf

muscular dystrophy (NMD) or spinal cord problems. Derby and Derbyshire CCG therefore do not routinely fund MI-E.

Guidance from a range of professional bodies has supported its use, based on low quality evidence or expert opinion. Further research is needed to establish the effects relating to reducing infections, safety, its use in the longer term and its cost effectiveness. Some of this has started to be addressed at a national and international level but will take some time to be available.

There may be exceptional circumstances where a clinician can demonstrate that a patient can derive significantly greater benefit from the technology than other patients. In these circumstances please read the Individual Funding Request (IFR) policy and complete the relevant form.

This policy statement applies to both children and adults". [19]

➢ Referring/prescription and monitoring by health professionals?

No information could be sourced. No public schemes/programs could be found in Australia other than a Cough Assist Program administered by Spinal Muscular Atrophy Australia Inc. This is a members loaning scheme, with a pool of 15 CA-3200 and 10 E-70 Cough Assist Machines. The criteria for loan is:

- Any person/family requesting to use a machine MUST be a member of Spinal Muscular Atrophy Australia Inc.
- Any person/family requesting a machine must complete an Application for Equipment Form
- A letter from a Respiratory Specialist must accompany the application. The letter must state;

  i) The name of person using machine.

  ii) The machine will be of benefit to that person.

  iii) That the person/family has been trained and can appropriately use the machine.

➢ Evidence that this support is linked with any specific disabilities?

See "Respiratory supports – link to specific functional impairments/disability types" table above.

➢ Typical equipment and consumables required

Cough Assist equipment would typically be the machine and a mask. [20]There are various products on the market.

New assisted cough machines are small, lighter, and convenient for home and travel. The mechanically assisted cough, or cough assist machine uses a facemask, mouthpiece, or tracheostomy to deliver gradual positive air pressure to the airway. [21]

[19] http://www.derbyshiremedicinesmanagement.nhs.uk/assets/clinical-policies/clinical_policies/other/cough_assist_policy.pdf

[20]http://incenter.medical.philips.com/doclib/enc/9984488/CAT70_Quick_start.pdf%3ffunc%3ddoc.Fetch%26nodeid%3d9984488

[21] https://www.parentprojectmd.org/care/care-guidelines/by-area/care-for-lung-muscles/assistive-devices-for-coughing/

A typical guideline for the therapy including use of equipment can be found on Philips.com

CPAP

- Clinical guidelines for indication and use

The Sleep Association Australia website contains best practice guidelines for the provision of CPAP therapy. [22]

The document sets out the minimum expected standards for a business or organisation which intends to provide a CPAP service. The basic requirements are:

- An organisational framework that demonstrates a commitment to CPAP provision as a significant activity
- Premises that are appropriate for the services provided.
- Staff who are appropriately trained
- A choice of CPAP equipment sufficient to meet individual patient needs
- A CPAP initiation service which provides patients with adequate information and education to instil confidence in their treatment.
- A CPAP follow-up service which comprises an appropriate number of follow-up contacts and the opportunity for patients to access the service on an as-needed basis.
- An infrastructure that enables timely and efficient communication with sleep clinics and referring doctors about their patients.

Government Support for CPAP Therapy (Eligibility Criteria/ Equipment Provision)

State and Territory Governments provide funding to patients for CPAP therapy if they meet a range of financial, medical, and in some cases geographical criteria.

The table below summarises information provided by the ASA on support provided by state and territory governments to assist people access CPAP equipment. [23]

Jurisdiction	Key Eligibility Criteria	Equipment Provision	Other Notes
ACT	Pensioner or Health Care Card holder OSA of 'significant severity'	CPAP	Patients must demonstrate ability to use CPAP through self-funded trial 2 week waiting period

[22] Thornton A. Best Practice Guidelines for Provision of CPAP Therapy, V2.2. Sleep Association Australia; 2009, https://sleep.org.au/common/Uploaded%20files/Public%20Files/Professional%20resources/Sleep%20Documents/Best%20Practice%20Guidelines%20for%20Provision%20of%20CPAP%20therapy.pdf

[23] Australian Government, Inquiry into Sleep Health Awareness in Australia, [website], 2018 (accessed 22 August 2019),https://www.aph.gov.au/Parliamentary_Business/Committees/House/Health_Aged_Care_and_Sport/SleepHealthAwareness/Report/section?id=committees%2Freportrep%2F024220%2F26956

Jurisdiction	Key Eligibility Criteria	Equipment Provision	Other Notes
NSW	Permanent or long-term disability 'Require the assistive technology to remain in a community setting'	CPAP device and some consumable products	4 month or more waiting period Co-payments range from a minimum of $100 per year to 20 per cent of the device cost
NT	Pensioner or Health Care Card holder or disability preventing work Significant OSA and meet clinical criteria	Rental of CPAP device, patients purchase mask and consumables	Patient rents CPAP at their expense for 4 to 6 weeks to demonstrate adherence Scheme not available in Alice Springs and Central Australia
Qld	Pensioner or Health Care Card holder	Loan of CPAP device Consumables and accessories such as the mask not provided	2 month rental period at patient's expense
SA	Pensioner or Health Care Card holder Severe OSA with 'significant medical co-morbidities'	CPAP device Replacement of consumables not provided	Only available in 2 of the 4 Local Health Network areas
Tas	Health Care Card holder	CPAP device rented at $50 per year Initial consumables provided but patients must fund replacements	A cap of the number diagnostic sleep studies that can be undertaken provides an effective cap on the number of devices that will be funded
Vic	Health Care Card holders with moderate to severe OSA. Hospital based funding and not all hospitals provide funding		No state-wide program. People living in rural areas and some metropolitan areas have 'no or very limited access' to CPAP funding
WA	Pensioner or Health Care Card holder At least moderate OSA	CPAP device	Patient must demonstrate use and benefit of CPAP through trial and own expense

Public funded CPAP schemes in Australia

The following table indicates the schemes available in each state/territory for public funding for home CPAP programs.

Jurisdiction	Criteria/Link	Referring/prescription and monitoring by health professionals?	Details
NSW Government: NSW Health: EnableNSW	Adult CPAP - Clinical Criteria	Prescribed by a qualified Sleep Medicine Practitioner or Respiratory Physician Prescribing physician/team perform a clinical review within 3	NSW offers a co-ordinated state based approach, administered through ENABLE NSW. The criteria for CPAP supply are strictly applied to target only the most severe group in greatest financial need. In practice, only patients on a pension or health care card with severe OSA can access an ENABLE machine, and there is a wait of at least 4 months to access supply of a machine. [24]

[24] Australasian Sleep Association, Public funding for CPAP in Australia, submission 118, [website], 2019, (accessed 22 August 2019), https://www.aph.gov.au/Parliamentary_Business/Committees/House/Health_Aged_Care_and_Sport/SleepHealthAwareness/Submissions

Jurisdiction	Criteria/Link	Referring/prescription and monitoring by health professionals?	Details
		months	The criteria document : • Specifies the criteria to access assistance through EnableNSW for this equipment group, and provides a basis for consistent and transparent decision making. • Provides information regarding eligible persons, eligible prescribers and equipment provided. • If the person is prescribed oxygen, a separate equipment request will need to be made for this equipment as per the Adult Home Oxygen Clinical Criteria. • There is equipment eligibility requirements
Queensland Government: Queensland Health: Queensland Health Sleep Disorders Program	Accessing the CPAP Program	Patients need a doctor's referral to a Queensland Health Sleep Disorders Prescriber Centre and a clinical assessment by a Royal Australasian College of Physicians Accredited Sleep Physician.	The Queensland program operates under state-wide eligibility guidelines to promote equity of access to equipment across the state. Patients must be holders of a concession card (a Queensland Pensioner Concession Card or Queensland Health Care Card or equivalent federal card) and must be under the direct case management of a Queensland Health Facility. The program does not cover "accessories" including masts, replacement tubing or heated humidification. [25] • Sleep Disorders Program services include: - Consultation with dedicated sleep medicine specialists - Advanced sleep investigation and diagnostic tests - Monitoring of patient treatment and adherence to therapy - Long-term loan of in-home therapy devices including CPAP - Patient education, support and follow-up • The Queensland Health Sleep Disorders Prescriber Centre prioritises patients via various criteria.
South Australian	Website	Referral by a medical practitioner.	• South Australia has no coordinated State-based approach to CPAP funding and provision.

[25] Australasian Sleep Association, Public funding for CPAP in Australia, [website], 2019, (accessed 22 August 2019), file:///C:/Users/COR529/Downloads/Sub0118.1%20Australiasian%20Sleep%20Association%20(2).pdf

Jurisdiction	Criteria/Link	Referring/prescription and monitoring by health professionals?	Details
Government: SA Health			• Funding for CPAP therapy varies between Local Health Networks (LHNs), and hospitals within a single network, with significant disparities. • SA is made up of four local networks and only two provide a budget for sleep service and CPAP provision. • Appointments require a referral by a medical practitioner, and additional CPET Clinical Information Form.
Victoria State Government	Website General Guidelines: Psychiatric Illness and Intellectual Disabilities Donations Trust Fund (PIIDDTF)	Could not be sourced	• In Victoria, the system for CPAP funding is fragmented and highly variable, depending on where the patient is located. • It is provided through individual public hospitals/health service networks and there is no co-ordinated state-wide approach or consistency. • A fund exists (Psychiatric Illness and Intellectual Disabilities Donations Trust Fund- PIIDDTF) which broadly provides for payments to be made for the treatment or welfare of people with a mental illness or intellectual impairment. The intellectual disability component of the fund is administered by the Corporate Services Group of the Department of Human Services.
WA	Australasian Sleep Association, Public funding for CPAP in Australia [26]	Based on severity, demonstrated use, benefit. See details.	Sir Charles Gairdner Hospital, one of the largest tertiary public hospitals in WA, provides government funded CPAP for patients with health care cards or pension card holders, if they qualify as follows: 1. at least moderately severe OSA (AHI>15/hr); and 2. demonstrated satisfactory use (average at least 4 hours per night), at their own expense; and 3. benefit (either a reduction in Epworth or clinician indicating clinical benefit was obtained) during a CPAP trial.

[26] Australasian Sleep Association, Public funding for CPAP in Australia, submission 118, [website], 2019, (accessed 22 August 2019), https://www.aph.gov.au/Parliamentary_Business/Committees/House/Health_Aged_Care_and_Sport/SleepHealthAwareness/Submissions

Jurisdiction	Criteria/Link	Referring/prescription and monitoring by health professionals?	Details
NT	Australasian Sleep Association, Public funding for CPAP in Australia [27]	Diagnosis with significant OSA required.	There are no public hospital sleep laboratories and no public hospital sleep services. All patients have the OSA diagnosed while in hospital for another reason (eg lung disease) using an ambulatory device, or privately. The Respiratory Appliances Loan Scheme (RALS) provides a CPAP pump to patients who meet the following criteria, except those who live in Central Australia and Alice Springs. Eligibility Criteria: 1. Diagnosed with significant OSA and meet Clinical Criteria; 2. Hold a current Centrelink Pensioner Concession Card, Disability preventing to work or Health Care Card (Commonwealth Seniors Health Card or Seniors Business Card holders are not eligible); 3. Reside permanently in the Northern Territory; 4. Agree to rent a CPAP at his or her expense for a minimum of 4 to 6 weeks to ensure adherence; Agree to purchase his or her device consumable replacements including mask, headgear, filters and humidifiers; Use his or her CPAP adequately during the home treatment trial for a minimum of 4 weeks (minimum 4 hours/night). (Please note in certain circumstances patients requiring bilevel ventilation are exempted from the home trial due to high rental cost and potential seriousness of their medical condition.) 5. Not eligible for assistance through another funding source i.e. DVA or a private health fund 6. Applicants must complete a home treatment trial for at least 4 to 8 weeks and applicants must agree to purchase replacement consumables such as tubing, mask, headgear, chinstraps or humidifier chambers.
Tasmania	Australasian Sleep Association, Public funding for CPAP in Australia [28]	Could not be found.	• All health care card holders receive government subsidised CPAP equipment with a complete set of consumables inclusive of mask at first prescription

[27] Australasian Sleep Association, Public funding for CPAP in Australia, submission 118, [website], 2019, (accessed 22 August 2019), https://www.aph.gov.au/Parliamentary_Business/Committees/House/Health_Aged_Care_and_Sport/SleepHealthAwareness/Submissions

[28] Australasian Sleep Association, Public funding for CPAP in Australia, submission 118, [website], 2019, (accessed 22 August 2019),

Jurisdiction	Criteria/Link	Referring/prescription and monitoring by health professionals?	Details
			• The patients pay an ongoing annual $50 'rental' fee and are responsible for the costs of replacement masks/tubing etc • This funding is not limited by clinical definitions of severity or capped at a given total. Rather, the number of diagnostic sleep studies for HCC holders is severely limited e.g., 180/year in Southern Tasmania - which effectively 'caps' the number of machines receiving assisted ventilation
ACT Government	Domiciliary Oxygen and Respiratory Support Scheme (DORSS)	Be referred by an approved consultant or approved advanced trainee using the Referral to the ACT Domiciliary Oxygen Support Scheme form – 25505 (0212) found on the clinical forms register. Meet the medical eligibility criteria for the supply of oxygen and related respiratory supplies as stated in References in this document in line with the Thoracic Society of Australia and New Zealand (TSANZ) guidelines (Adult Domiciliary Oxygen Therapy)	The ACT government has a territory-wide scheme that provides CPAP through the Domiciliary Oxygen and Respiratory Support Scheme (DORSS). Eligibility requirements include both financial and medical criteria. • Persons 16 years and over are eligible if they hold a current means tested Centrelink pension or Health Care Card and meet the eligibility criteria. • Clients are not required to make any payments and/or contributions with the exception of replacement masks, filters, and tubing. • Supply of units: must be assessed and referred by an approved consultant and meet other cirteria contained in the scheme guidelines. • Annual review of need

➢ **Evidence that this support is linked with any specific disabilities?**

See "Respiratory supports – link to specific functional impairments/disability types" table above.

➢ **Typical equipment and consumables required**

CPAP relies on two main components: the pump and the mask. CPAP masks come in all shapes and sizes. There are typically four types of sleep apnea masks: nasal pillows, nasal masks, full-face masks, and oral masks. Each mask fits slightly differently. The two types of CPAP pumps are fixed pressure and automatic pressure. Fixed pressure pumps apply continuous pressure that has been pre-set to

https://www.aph.gov.au/Parliamentary_Business/Committees/House/Health_Aged_Care_and_Sport/SleepHealthAwareness/Submissions

suit your specific requirements. Automatic pressure pumps monitor airflow and continuously adjust air pressure based on changing needs throughout the night. These kinds of pumps are most useful for patients whose positive airway pressure requirements vary during sleep. [29]

Various equipment associated with CPAP:

CPAP MACHINES: Fixed Pressure, Automatic Variable Pressure, Travel CPAP Machines,
CPAP MASKS: Nasal Pillow, Nasal, Full Face, CPAP Mask Parts (Various)
CPAP ACCESSORIES: Battery Kits, Tubing, Humidifier, Filters, Power, Cleaning, Chin Straps, Lumin - CPAP Sanitiser

BIPAP

BIPAP is comparable to CPAP.

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CPAP Australia, What is CPAP? Everything you need to know, [website], 2019, (accessed August 22 2019), https://ww2.cpapaustralia.com.au/blog/what-is-cpap

Attachment A: Respiratory section

Support Type 2: Respiratory		
	Clinical intervention: • **Tracheostomy (insertion, removal and change)** • **Clinical care**	**NDIS Responsibility** The NDIS will fund this disability related health support **when it is a regular part of the participant's daily life and results from the participant's disability.** **Health System Responsibility** All supports provided in a hospital setting or **when not a regular part of the participant's daily life or resulting from the participant's disability.**
	Implementation of: • **Tracheostomy maintenance and care** This involves daily maintenance and care as required by the participant, such as cleaning and suctioning.	**NDIS Responsibility** Supports to implement maintenance and care where the participant is unable to do so due to their permanent functional impairment, which would otherwise be done by the participant themselves in the normal maintenance routines. For example, cleaning the tracheostomy site. Only an appropriately trained and competent support worker can provide suctioning.
	Training of the support worker to provide: • **Tracheostomy maintenance and care** This training will be to ensure the support worker is able to effectively: • Support the participant's individual care needs; and • Perform any required daily maintenance and care required by the participant.	Note: general maintenance and care is a standard competency held by disability support workers. **NDIS Responsibility** When required, the NDIS would fund a suitable number of hours for a support worker to attend training that is: • Provided by the health treatment team; • Specific to the implementation of the participant's care needs; • Required to ensure that support worker is able to perform day to day maintenance and care. **Health System Responsibility** The health system will provide training to ensure the tracheostomy maintenance and care is effectively implemented as prescribed.
	Consumable: • **Tracheostomy equipment and consumables**	**NDIS Responsibility** The NDIS will fund this disability related health support **when it is a regular part of the participant's daily life and results from the participant's disability.** **Health System Responsibility** All supports provided in a hospital setting or **when not a regular part of the participant's daily life or resulting from the participant's disability.**

	Equipment: • **Constant Positive Airway Pressure (CPAP) machine and consumables (such as mask, head straps and tubes)** • **Bilevel Positive Airway Pressure (BIPAP) machine and consumables (such as mask, head straps and tubes)** • **Ventilator**	**NDIS Responsibility** The NDIS will fund this disability related health support **when it is a regular part of the participant's daily life and results from the participant's disability** including: • The provision and maintenance of CPAP/BIPAP machines and ventilators to assist in sleeping and breathing for people with compromised breathing function as a result of their disability. **Health System Responsibility** All supports provided in a hospital setting or **when not a regular part of the participant's daily life or resulting from the participant's disability.**
	Equipment: • **Air Humidifier**	**NDIS Responsibility** The NDIS will fund this disability related health support **when it is a regular part of the participant's daily life and results from the participant's disability** including: • The provision and maintenance of air humidifiers to assist with skin and respiratory heath and comfort as a result of their disability. **Health System Responsibility** All supports provided in a hospital setting or **when not a regular part of the participant's daily life or resulting from the participant's disability.**
	Equipment: • **Portable suction machine** • **Cough assist machine**	**NDIS Responsibility** The NDIS will fund this disability related health support **when it is a regular part of the participant's daily life and results from the participant's disability** including: • The provision and maintenance of portable suction machines and cough assist machines are to maintain respiratory heath and prevent aspiration as a result of their disability. **Health System Responsibility** All supports provided in a hospital setting or **when not a regular part of the participant's daily life or resulting from the participant's disability.**
	Assistance with the use of all respiratory medical equipment • **CPAP**	**NDIS Responsibility** Supports to assist the participant with the use of the medical equipment, where the participant is unable to do so due to their permanent functional impairment. Only an appropriately trained and competent support worker can provide this.

	• **BIPAP** • **Ventilator** • **Cough assist machine** • **Portable suction machine** • **Air humidifier**	**Health System Responsibility** Initial consultations, assessments and development of any required care plans by a clinician, for the use of the medical equipment. Any periodic re-assessment of subsequent care plans for the use of the medical equipment where circumstances change.
	Training of the support worker to use the: • **CPAP** • **BIPAP** • **Ventilator** • **Cough assist machine** • **Portable suction machine** • **Air humidifier** A support worker must hold relevant competencies to perform this task.	**NDIS Responsibility** When required, the NDIS would fund a suitable number of hours for a support worker to attend training that is: • Provided by the health treatment team; • Specific to the use of the machine/equipment by the participant. **Health System Responsibility** If the medical equipment has been prescribed by a clinician for the participant's use, the health system would be responsible for providing any required health and safety instructions for the use of the equipment. To ensure the equipment is effectively used as prescribed, the health system will provide: • The initial training of the NDIS participant and/or their support worker(s) by the health treatment team.