

**COMMUNITY HEALTH, TRANSITIONAL AND SUPPORT SERVICES –
COMMUNITY OXYGEN THERAPY SERVICES
TIER LEVEL TWO
SERVICE SPECIFICATION**

STATUS: Approved for use for the mandatory nationwide description of services to be provided.	MANDATORY
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Note: Contact the Service Specification Programme Manager, National Health Board Business Unit, Ministry of Health to discuss the process and guidance available in developing new or updating and revising existing service specifications. Web site address of the Nationwide Service Framework Library: <http://www.nsfl.health.govt.nz/>.

**COMMUNITY OXYGEN THERAPY SERVICES -
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TIER LEVEL TWO
SERVICE SPECIFICATION**

The overarching Tier One Community Health, Transitional and Support Services specification contains generic principles and content common to all the tiers of specifications below it. This Tier Two service specification for Community Oxygen Therapy Service (the Service) is used in conjunction with the Tier One Community Health, Transitional and Support Services service specification.

Refer to the Tier One Community Health, Transitional and Support Services service specification sections where applicable, for generic details on:

- Service Objectives
- Service Users
- Access
- Service Components
- Service Linkages
- Exclusions
- Quality Requirements.

The above sections are applicable to all the Service delivery.

1. Service Definition

This Service is for Eligible¹ people of all ages with health conditions who are identified as meeting the criteria for long term² community oxygen therapy services described in Appendix 1A, Adult Indications, Assessment and Equipment for Community Oxygen Therapy (based on the Position Statement of the Thoracic Society of Australia and New Zealand (TSANZ)³ and Appendix 1B, Paediatric Assessment and Indications for Community Oxygen Therapy.

Where appropriate, the Service supports Service Users to achieve their optimal clinical benefit from community oxygen therapy and maximise their independent function. This service specification provides for the supply of prescribed oxygen and the initial education by the community - based Oxygen Therapist of the community oxygen therapy service.

Respiratory / Designated Physicians or Paediatricians and clinical staff with delegated authority are the prescribers of the Service and are referred to in this service specification as the appropriate 'Oxygen Specialist'.

Refer to Section 10 Definitions below, for the explanation of terms used in this service specification.

2. Exclusions

The specialist clinical assessment, ongoing monitoring, clinical care and supervision of the Service Users with respiratory failure is covered by the relevant service specifications under the Tier One Services for Children and Young People, or the Tier Two General Medicine service specification and purchase units for specialist respiratory outpatient or inpatient services.

¹ Not all Service Users who are referred or present to the Service are eligible for publicly funded services. The eligibility criteria for publicly funded health and disability services are prescribed by Ministerial Direction. Refer to <http://www.moh.govt.nz/eligibility> for information on the latest eligibility criteria.

² Long Term Oxygen Therapy: Oxygen therapy for all or part of the day with an anticipated duration of ≥ 4 weeks in paediatrics or ≥ 6 weeks in adults.

³ <http://www.thoracic.org.au/professional-information/position-papers-guidelines/oxygen-therapy-home-ventilation/>

Funding for this Service will not duplicate services already funded by the District Health Board (DHB), Ministry of Health (the Ministry) or where the responsibility for funding is with the Accident Compensation Corporation (ACC).

People will not be eligible for services provided under the Community Oxygen Therapy Services service specification if:

- the assessment of the Service User's home environment demonstrates that family and whanau who smoke in the presence of the Service User's oxygen usage contravenes the safe use of oxygen by the Service User
- people are current smokers where there is no demonstrated clinical benefit from community oxygen services, or, as they continue to smoke while receiving oxygen therapy, they then risk burns, fires and explosions, so that smoking offsets the treatment benefit
- people with a loss of respiratory function that is being actively managed by a specialist assessment, treatment and rehabilitation team and / or a medical team
- people are receiving hospital level care in Age Related Residential Care (ARRC) facilities. The ARRC facility provides oxygen supply to any patient that is under their long term residential care, no matter what the age of the resident or under which residential contract / funder they have been admitted under.⁴

Note: Oxygen equipment and supplies that are of an appropriate standard to meet the assessed needs of each subsidised resident, as set out in the resident's care plan are the responsibility of the service provider.

3. Service Objectives

3.1 General

The objectives of the Service are to:

- achieve, maintain or regain as much self-care, independence (functional ability) quality of life and social participation as practical for the Service User by delivering oxygen therapy services to best meet their health needs
- prevent a Service User's avoidable admission to hospital
- enable appropriate and timely hospital discharge of a Service User
- prolong the life of a Service User by helping to avoid anticipatable health complications and minimise the impact of a Service User's personal health problem
- achieve optimal growth and development for infants, children and young people Service Users
- support adjunctive, evidence based non pharmacological interventions
- palliate a Service User's end-of-life symptoms
- improve or maintain the health of the Service User by delivering services to best meet their needs.

3.2 Māori Health

See the Tier One Community Health, Transitional and Support Services service specification Section 4.2 Māori Health.

4 Service Users

Service Users are those people who fulfil the criteria as described in Appendix 1A or Appendix 1B and who can be appropriately managed in the community.

⁴ Hospital level care services are expected to provide concentrators, or have several available for resident use.

See also Section 5.2 Entry Criteria, below.

5. Access

5.1 Community Oxygen Therapy Referral Criteria

Referral to the adult Service will be from a registered Medical Practitioner, Respiratory Nurse Practitioner or Respiratory Clinical Nurse Specialist for Service Users who meet the access criteria for the Service. Oxygen will be prescribed in accordance with TSANZ Position statement on oxygen. The appropriate Oxygen Specialist will make the final decision in conjunction with the community oxygen community service provider(s).

Referral to the paediatric Service will be from a paediatric Oxygen Specialist or paediatrician with an interest in Oxygen Therapy, following the Service's referral pathways.

5.2 Entry Criteria

- Referrals for the paediatric Community Oxygen Therapy Service must meet the criteria in Appendix 1B. Paediatric Service Users will have an anticipated need for oxygen therapy for a minimum of four weeks and a stable prescription for the preceding week.
- The assessed health status risk for adults will guide the determination of entry to the Service and priority for entry. See Appendix 2 for the Adult Risk Assessment Framework.
- People who are Eligible long-term users of prescribed oxygen and related consumables will receive this Service throughout their assessment, treatment and rehabilitation event.
- Residents of Residential Homes / Care Facilities⁵ are eligible for the Service under the same criteria as people living in their own homes.
- Residents of ARRC facilities that provide hospital level are eligible under this service specification only for the specialist assessment and oxygen therapy advice component.

5.3 Exit Criteria

5.3.1 General

Service Users will be discharged from the Service when:

- the use of oxygen therapy is no longer clinically indicated, or
- they do not adhere to their prescribed oxygen treatment, or
- all attempts to enable safe service delivery (for the Service User, their family and / or whanau, or carers and the Service Provider) have been exhausted, or
- they no longer wish to receive the Service, or
- they cease to meet the Entry Criteria (Section 4.1 above), or
- they have transferred to another service provider, or another country
- they have deceased.

5.3.2 Paediatric Community Oxygen Therapy Exit Criteria

As the majority of paediatric Service Users on Paediatric Community Oxygen (PCOT) are expected to be able to wean off their prescribed oxygen therapy, an active review and weaning programme is expected (see Appendix Three for the appropriate paediatric clinical guidelines for community

⁵ Includes ARRC facilities, rest homes; retirement homes, and contracted facilities that provide homes (including 'housing and recovery services' or 'community support services with accommodation') for people of any age who may have chronic health conditions, intellectual, physical or sensory disabilities and / or mental health and addiction problems. Includes people who are mental health and addiction services clients; and Community Residential Support Services for Ministry of Health funded Disability Support Services clients.

oxygen). When oxygen is discontinued through weaning, the oxygen may be retained for a period of up to three months for supervised intermittent oxygen therapy.

When a Service User transfers between DHBs, or between paediatric and adult services, reassessment will be required by the receiving Oxygen Specialist to ensure the appropriateness of ongoing Community Oxygen Therapy. The receiving Oxygen Service will provide ongoing oxygen source(s) and consumables until this re-assessment of the Service User can take place (usually within a six week time frame).

5.4 Response Time

5.4.1 Adult Community Oxygen Therapy Response Time

Receipt of referral and Service response times for adults will be as given in the table below. The Service response may be by direct and / or indirect review or assessment of the Service User.

Risk Level	Receipt / Acknowledgement of the Referral by the Service to Adult Service Users	Service response to the Service User for an assessed risk for the provision of the Service
Low Risk	Within 10 Working Days of receipt of referral and oxygen script.	Within 15 Working Days of receipt of referral and oxygen script.
Medium Risk	Within 2 Working Days of receipt of referral and oxygen script.	Within 10 Working Days of receipt of referral and oxygen script.

5.4.2 Paediatric Community Oxygen Therapy Response Time

The majority of paediatric referrals are hospital inpatients. As the referral comes from a paediatric Oxygen Specialist or a paediatrician with an interest in oxygen therapy, it will be uncommon that the referral is declined, but if the appropriateness of the prescription or indication is contested, review may be sought from a paediatric respiratory or sleep specialist. The receipt of referral and Service response times for paediatrics will be as given in the table below.

Receipt / Acknowledgement of the Referral by the Service to Paediatric Service Users	Service response to approve, decline or query the request provision of the Service	Issue / Installation of Oxygen Therapy Equipment
Within 1 Working Day of receipt of referral and oxygen script.	Within 2 Working Days of receipt of referral and oxygen script.	Within 3 Working Days of approval, or timing as otherwise directed as part of the planned discharge plan that is agreed with the receiving DHB.

6. Service Components

6.1 Processes

Refer to Tier One Community Health, Transitional and Support Services service specification for sections on, 6.2 Health, 6.3 Health for Other Ethnic Groups, and 6.5 Consumables and Equipment.

The following service components are included in the price for this Service:

Service Components	Description
Referral management	The Service provider will operate an effective and efficient system to receive and prioritise all service referrals. The Service provider will record, review and respond to referrals within the time frame specified in Section 5.4, above. The Service provider will assess the referral to ensure appropriate data has been provided. This will include the patient's details, clinician details, urgency of response time (section 5.4.1 and 5.4.2 above), risk indication as per Appendix

Service Components	Description
	1A or 1B, oxygen prescription (such as type, duration, flow rates), the absence of oxygen therapy exclusion criteria listed in Section 2 above, and baseline data as required for reporting.
Assessment of Service User Requirements for Oxygen Therapy	<p>Involving the Service User, and where appropriate, their family and /or whanau / carers, the Oxygen Specialist and the Oxygen Therapist, the Service provider will:</p> <ul style="list-style-type: none"> • make an assessment of the prospective Service User's community setting in terms of appropriateness for community oxygen therapy • determine what equipment and supplies will be required to meet the prospective Service User's needs for community oxygen. This assessment will take account of the Service User's indication for oxygen therapy, the oxygen prescription provided by the Oxygen Specialist, and the Service goals including promoting the Service User's independence and social participation.
Planning and Provision	<p>Having determined the Service User's needs (and that of the family and whanau (where appropriate) the Service will provide advice on the installation of appropriate equipment and supplies for community oxygen. Installation advice will include safety aspects such as appropriate signage and fixation (in residence and motor vehicle, as appropriate). The Service will provide ongoing support for this equipment / supplies including replacement of equipment and consumables as necessary. Refer to Provision of Supplies and Consumables below.</p> <p>In partnership with the Service User, their family and whanau, caregivers (where appropriate), the Oxygen Specialist and Oxygen Therapist, the Service will:</p> <ul style="list-style-type: none"> • formulate a plan for how the Service User will have their oxygen needs monitored, how any changes in prescription will be communicated to the Service, and a care plan for intercurrent respiratory illness / oxygen supply failure • all Service Users will have a review, with regard to continued indication and adequacy of community oxygen therapy, within one to two months of commencement of the therapy and regularly thereafter, as appropriate. • assist the Service User and their family and whanau / caregivers with appropriate notification of electricity suppliers • will have a consumer complaints system in place for dealing with complaints.
Clinical Audit	Provide data to the Ministry of Health, DHB and researchers and conducting clinical audit, as appropriate.
Education	<p>The Service will provide education on the appropriate and safe delivery of community oxygen therapy to the Service User, their family and whanau, caregiver, teachers and health workers, as appropriate, to help prevent deterioration and to maximise self-management. This education may be provided on an individual basis (eg. to a new Service User and their family and / or whanau) or in groups (eg. to teachers / health workers / caregivers).</p> <p>Education provided to Service Users, family and whanau / caregivers, will</p>

Service Components	Description
	<p>include education on:</p> <ul style="list-style-type: none"> • safe installation, storage and care of oxygen equipment, New Zealand Transport Authority guidance and regulations when driving,⁶ transport of oxygen cylinders used at the time, and signage, • usage of oxygen equipment (including bottles, regulators, concentrators, homefill, pulse devices) • risks / hazards of home oxygen including fire and provide the Service User, family and whanau with appropriate action plans (including those in the event of emergencies, failures of mains electrical supply⁷, for critical medical support and equipment failures) and assist with notification of electricity companies, if required • travel information, which should include the need for pre-planning, the likely costs, and assistance to access oxygen at their travel destination • how to seek review for oxygen therapy services. <p>Education provided to health workers and appropriate Oxygen Specialists will include education on:</p> <ul style="list-style-type: none"> • information on what the Service provides • how to refer to the Service, and • guidance on community oxygen equipment and as appropriate, sharing specialist Oxygen Therapist knowledge and skills to assist the staff of Residential Homes / Care Facilities and Aged Related Residential Care to become competent in managing residents in those facilities who use therapeutic oxygen. <p>In undertaking education activities the Service will recognise the Service User's culturally sensitive issues relating to these services.</p>
Transfer and Discharge Planning	<p>Service Transfer</p> <p>The Service will facilitate the transfer of the Service User when formal notification is received from the Oxygen Specialist that the Service User is transferring to another district or provider. The Oxygen Specialist will supply the Service with contact details for the Service User's new Oxygen Specialist.</p> <p>Any variation between DHBs in terms of indication and service provision should be acknowledged and discussed with the Service User and their family when the transfer is being considered.</p> <p>Discharge</p> <p>When the Oxygen Specialist formally notifies the Service that the Service User no longer has an indication for community oxygen, the Service will:</p> <ul style="list-style-type: none"> • make arrangements, for the removal of oxygen therapy equipment, if required • ensure all Service Users, where age appropriate, or their caregiver / family and whanau understand the planning discharge process and know how to request a reassessment for oxygen therapy if required. <p>In either transfer or discharge the Service will provide written correspondence to</p>

⁶ NZTA Refer to: 10.2 Respiratory conditions, Medical standards for all licence classes and/or endorsement type. Individuals on continuous oxygen therapy are generally considered unfit to drive.
<http://www.nzta.govt.nz/resources/medical-aspects/10.html#102>

⁷ Refer to The Electricity Authority website <http://www.health.govt.nz/our-work/environmental-health/medically-dependant-consumers-electricity>

Service Components	Description
	the Service User, their General Practitioner and Oxygen Specialist, noting their discharge or transfer, and in the latter case, who the Service User will be transferred to, together with a description of their current oxygen therapy support.
Provision of Oxygen Supplies and Consumables	<p>The Service provider will:</p> <ul style="list-style-type: none"> • establish and maintain policies and protocols for a Service User's care agreed by the appropriate prescribing Oxygen Specialist and the Oxygen Therapist • in liaison with the appropriate Oxygen Specialist, devise the appropriate equipment including oxygen source(s) and consumables to ensure that Service Users receive the necessary range of services, equipment, care, information and support within the timeframes required by their health need. (For adults, see Appendix 2 for the Adult Risk Framework.) • facilitate access to an identified and / or prescribed amount of consumables and / or supplies and ensure that the equipment supplied is appropriate to the Service User's age, lifestyle, ability to manage and is within the Service's budget • where appropriate, install equipment and consumables in a safe manner • advise and provide information to Service Users (where age appropriate) and their family and whanau to enable them to purchase additional equipment privately, if they wish to do so

6.2 Settings

The Service will generally be provided at the Service User's usual place of residence or at other sites as negotiated and at the discretion of the clinician, as clinically indicated including in the Service User's workplace, school, marae etc.

6.3 Oxygen Therapy Equipment

6.3.1 General

The Service will, in accordance with Section 2 Exclusions, supply or facilitate access to identified / prescribed consumables, supplies and equipment as determined by the Service User's care plan delivered under this service specification.

Within the Service User's individual care plans, consideration is given to providing portable oxygen equipment in line with the assessment criteria in Appendices 1A or 1B and the current position statement of the Thoracic Society of Australia and New Zealand.

Adult Service Users on Long Term Oxygen Therapy (LTOT) who desaturate to less than 88% on exercise, particularly those who are continuing to work or study, will be considered for portable oxygen cylinders with an oxygen conserving device.

Equipment will be installed and maintained as per Section 13.12.1 of the Health and Disability Standards⁸.

6.3.2 Paediatric Community Oxygen Therapy Equipment

⁸ NZS 8134:2008 *Health and Disability Services Standards* are available from Standards New Zealand. <http://www.standards.co.nz/services/publications/8134+2008+Information+page.htm>

Appropriate oxygen sources include tank and concentrators. Generally a concentrator is a more appropriate and economical primary source of oxygen in those requiring flows of more than 0.25l/min. Service User needs should be considered within the family context and provide for reasonable participation in schooling, the workplace and social activities. As infants and children are not independent, oxygen supply will be sufficient for the caregiver to carry out their normal activities of daily living such as shopping or picking up other children from school, etc. If the paediatric Service User is viewed as oxygen-dependent, emergency oxygen supply will be necessary (usually tank oxygen) sufficient for them to reach an alternative oxygen source.

Equipment will be available to accommodate the paediatric flow rate requirements (1/16 l/min through to 9 l/min - individual needs will vary). Available flow rates for portable supply (outside the home environment) will be more limited. Humidification of oxygen will be provided where appropriate. Oxygen source(s) will be installed in a safe manner bearing in mind the presence of children. Sufficient consumables will be supplied, consistent with the infant, child or young person's specific needs.

At home, large oxygen cylinders will be secured to prevent them falling over, small cylinders may be stored on their sides or in racks. In the car, cylinders should be laid on the floor or restrained in carriers.

Housing appropriateness for community oxygen therapy should be assessed as part of the discharge planning.

7. Service Linkages

The Service will demonstrate effective relationships with the following services, as appropriate, to facilitate open communication, continuity and smooth referral, follow-up and discharge processes for Service Users:

- Aged Related Residential Care service providers
- assessment treatment and rehabilitation and other rehabilitation services
- Civil Defence / coordination emergency services
- community, social services, organisations, including Māori and Pacific Peoples organisations, as appropriate
- community nursing, allied health services and community support services
- consumer advocacy services
- emergency medical services
- key worker / service coordinator
- oxygen equipment suppliers
- palliative care services
- primary medical and nursing services
- Residential Home / Care Facilities service providers who have Service Users that use oxygen equipment prescribed by an appropriate Oxygen Specialist
- sleep clinics
- smoking cessation programmes
- specialist respiratory, medical, surgical and maternity services ,specialist paediatric and neonatal services*
- support needs assessment and services co-ordination services or equivalent.

*Refer to Appendix 3, Roles / responsibilities for Oxygen Specialist clinical services associated with the Community Oxygen Therapy Service.

8. Quality Requirements

8.1 General

The Service will:

- develop and implement an evidence based quality improvement programme that identifies requirements to be included in individual plans to ensure that all the Service's processes consider and meet the needs of all Service Users
- endeavour to achieve the referral guidelines at least 95% of the time
- report quarterly on the development and implementation of the quality improvement plan and compliance with standards
- ensure that staff providing the Service have knowledge of the scope and nature of community oxygen therapy services and meet professional standards of practice required by regulatory authorities as per the Health Practitioner Competence Assurance Act (2003) and relevant professional authorities for self-regulated professions
- ensure that Service Users requiring treatment, will have a short-term outcome-oriented plan with time frames developed and documented within 24 hours of completing the initial assessment.

8.2 Acceptability to the Service Users

Ensure Service Users have their health and disability related support needs met in a manner that respects and acknowledges their individual and cultural values and beliefs.

Consider and meet the age appropriate needs of the Service Users, and their family and whanau, and / or carers where applicable.

Goals with achievable outcomes will be developed and annually reviewed, or more frequently as required, in partnership with each Service User and their family / whanau / carers according to the Service User's wish and / or health condition.

Every Service User and their family and whanau / carers will be provided with meaningful information on his or her oxygen therapy service.

Service Users and carer satisfaction surveys will be undertaken annually to assess:

- the Service User's satisfaction with their level of involvement in the oxygen therapy service
- the Service User's and / or carer's satisfaction with the level of information they are given on their oxygen therapy service
- how well their cultural needs were recognised and met.

8.3 Safety

Service Users and their carers must be informed of the risk of burns or explosions from anyone smoking or other risks (tripping over tubing, crush injuries from falling bottles, etc) in the home / premises and comply with the safety guidelines provided when using oxygen therapy.

Individuals on continuous oxygen therapy are generally considered unfit to drive.

8.4 Quality Reporting Requirements for Clinical Auditing

The following minimum clinical information will be recorded in the clinical record for all Service Users for the purpose of clinical auditing:

- baseline observations of:
 - arterial blood gases on air at rest (adults only)
 - mean oxygen saturation on air (both adults and paediatrics)
 - mean oxygen saturation on flow of oxygen prescribed (both adults and paediatrics)

- the principal diagnosis for which oxygen is being supplied
- smoking assessments (never, past, current, passive)⁹
- type of Oxygen Prescription (may be more than one):
 - long term continuous / sleep oxygen therapy
 - intermittent oxygen
 - nocturnal oxygen therapy
 - palliative oxygen
 - portable oxygen (not cylinders for a car)

9. PURCHASE UNITS AND REPORTING REQUIREMENTS

9.1 Purchase Units are defined in the joint DHB and Ministry's Nationwide Service Framework Purchase Unit Data Dictionary. The Service must comply with the requirements of national data collections. The following Purchase Unit applies to this Service.

PU Code	PU Description	PU Definition	PU Measure	PU Measure Definition	Reporting to National Collections
DOM 102	Community Services - community oxygen therapy.	A regular supply of oxygen to Clients in the community by either oxygen concentrator and / or oxygen cylinders, as clinically indicated by the medical practitioner. Includes initial education to Clients and their families or carers on the correct use of domiciliary oxygen and the supplies or disposables required. Excludes ongoing domiciliary nursing visits.	Client	Number of clients managed by the service in the reporting period ie. all current cases in the period from 1 July to 30 June.	National Non-admitted Patient Collection (NNPAC)

9.2 Reporting Requirements

DOM102 has a mandatory monthly reporting requirement to NNPAC via the funding DHB. The NNPAC file specification and reporting requirements are on the following web site:

<http://www.health.govt.nz/publication/national-non-admitted-patient-collection-file-specification>

The Client measure reporting period is between 1 July and 30 June and includes the first oxygen therapy event and oxygen education each year and subsequent annual review.

Where the Service is provided by a non - DHB service provider, all information / data requested in the reporting requirements of the service specification will be sent to the Funder to upload into the Funder DHB's data warehouse.

9.3.2 Information Collection

You will **collect** the following information for all Service Users. This information may be reported to the Funder for the purposes of an audit.

- Service User Name
- Service User NHI

⁹ Smoking assessments information is collected to demonstrate the responsibility to give quit advice, as appropriate, and consider safety aspects of oxygen therapy treatment.

- Service User Date of Birth
- Service User Gender
- Service User Ethnicity. Ethnicity will be collected and reported at Level 2 according to the Ethnicity Data Protocols for the Health and Disability Sector and the supplementary notes and revised code set appendices.¹⁰
- Referring Practitioner Name
- Date of referral to the Service
- Date of receipt of referral to the Service
- Reason for Referral to the Service
- Date of assessment by the Specialist Oxygen Physician and the Oxygen Therapist
- Date of Service commencement
- Date of reassessment of the Service User by the Service, or Specialist Oxygen Physician, for continuing the Service
- Date the Service was declined by the Service (where this has occurred, following reassessment of the Service User).

10 Definitions of Terms used in this service specification

Aged Related Residential Care facilities: Age related residential care services provided in a facility in accordance with the Aged Related Residential Care Agreement.

Audit: Audit includes (without limitation) audit, inspection, evaluation or review of:

- a. quality
- b. service delivery
- c. performance requirements
- d. organisational quality standards
- e. information standards and organisational reporting requirements and
- f. compliance with any of your obligations in relation to the provision of the Services by you.

Continuous oxygen therapy: Oxygen therapy applied 24 hours per day.

Eligible people: Being eligible gives a person a right to be considered for publicly funded health or disability services (ie. free or subsidised). It is not an entitlement to receive any particular service. Individuals need to meet certain clinical and other assessment criteria to receive many services.

Intermittent oxygen therapy: Oxygen for intermittent use in the community during specific paroxysmal circumstances. Periods of therapy may be hours, days or weeks.

Long Term Oxygen Therapy (LTOT): Oxygen therapy for all or part of the day with an anticipated duration of ≥ 4 weeks in paediatrics or ≥ 6 weeks in adults. Also refer to Appendix 1A.

Oxygen Service: An identified DHB based service with the responsibility for providing the logistical support and funding for adult and paediatric community oxygen therapy. See Appendix Three Guidelines on Roles / responsibilities for Oxygen Specialist clinical services associated with the Community Oxygen Therapy Service below.

Oxygen Specialist: A medical specialist (vocational registration) with experience in appropriate oxygen therapy who provides clinical assessment and ongoing clinical supervision of the individual receiving community oxygen therapy. Includes Paediatricians with an interest in Oxygen Therapy.

¹⁰ <http://www.health.govt.nz/publications/ethnicity-data-protocols-health-and-disability-sector>.

For the purposes of clinical indication and eligibility it is their role to 'approve' or 'decline' access to community oxygen therapy. Individual DHBs may choose to allow all DHB medical specialists to fulfil this role, or designate specific individuals / services.

Oxygen Therapists: are trained health professionals in the delivery of oxygen therapy services, such as the Respiratory Knowledge and Skills Framework. Includes Registered Nurses, Physiotherapists, Physiologists and Pharmacists as designated by individual Service providers.

Paediatric Community Oxygen Therapy (PCOT) refers to oxygen therapy provided outside the context of hospital or emergency services to individuals 0-20 years of age who are under the ongoing care of a specialist paediatric medical service. Also see Appendix 1B.

Portable oxygen therapy: oxygen cylinder(s) or portable concentrator to support delivery of a Service User's oxygen therapy in a range of locations assessed on the individual Service User's need.

Residential Homes / Care Facilities: are contracted facilities that provide homes (including 'housing and recovery services' or 'community support services with accommodation') for people of any age who may have chronic health conditions, intellectual, physical or sensory disabilities and / or mental health and addiction problems.

Sleep Oxygen Therapy: Oxygen therapy applied solely during sleep (may include naps).

Service Provider: the entity that is contracted and funded to deliver the Service.

Service User: a person who has been accepted into the Oxygen Therapy Service and includes their family and whanau, carers, teachers and other health professionals as appropriate.

Working Day: Monday to Friday except for Public Holidays.

APPENDIX 1A

Adult Indications, Assessment and Equipment for Community Oxygen Therapy

The following requirements are based on the Position Statement of the Thoracic Society of Australia and New Zealand 2005. The review of 2005 version will be completed in 2012 / 2013. Current Position Papers and Guidelines are published on the Thoracic Society of Australia and New Zealand website <http://www.thoracic.org.au/professional-information/position-papers-guidelines/>

Refer to the current documents for more detailed information on LTOT, intermittent oxygen therapy, nocturnal oxygen therapy, portable oxygen, (not cylinders for cars).

Note that for **intermittent oxygen**, studies have shown this is a placebo and does not alter the patient's clinical outcomes or quality of life.

Long Term Oxygen Therapy

LTOT should be considered for patients with airflow obstruction with hypoxemia, or chronic airflow obstruction with Cor pulmonale. Other pulmonary lung diseases with hypoxemia such as interstitial lung disease, life threatening asthma, cystic fibrosis, pulmonary hypertension, neuromuscular or skeletal conditions, sleep disorders and palliation of terminal disease.

The following requirements must be met:-

- the Service User must be in a stable state for at least 4 weeks
- maximal medical treatment must be in place
- there should be evidence that the Service User who been smokers have stopped smoking for at least 4 weeks.
- a PaO₂ <7.4kPa (55mmHG) on air performed on two occasions 2-3 weeks apart

or

- a PaO₂ consistently between 7.3kPa (55mmHg) and 8kPa (60mmHg) in service users with any of the following; secondary polycythaemia, nocturnal hypoxia (SaO₂ below 88% for at least 30% night) or evidence of pulmonary hypertension (p. pulmonale on ECG or preferably 2D Echocardiograph)
- for Service Users with interstitial lung disease or pulmonary hypertension LTOT is prescribed when a PaO₂ is between 7.3kPa (55mmHg) and 8kPa (60mmHg).
- oxygen therapy is prescribed for palliation for terminally¹¹ ill patients, usually with cancer or other causes of disabling dyspnoea. This therapy is for the management of dyspnoea that is **inadequately controlled** on narcotic / anxiolytics and with oxygen saturation levels of <90% on air at rest.

¹¹ Home oxygen therapy may be appropriate to relieve symptoms in terminally ill people, who will **usually** have a life expectancy of less than three months

APPENDIX 1B

Paediatric Assessment and Indications for Community Oxygen Therapy

1 General

Paediatric Community Oxygen Therapy (PCOT) refers to oxygen therapy provided outside the context of hospital or emergency services to individuals 0-20 years of age who are under the ongoing care of a specialist paediatric medical service. Individuals ≥ 15 years of age under adult medical services should be considered under the adult criteria.

PCOT includes continuous or sleep related oxygen therapy, palliative care oxygen and intermittent oxygen therapy and forms a significant but minority part of overall community oxygen therapy.

Chronic neonatal lung disease, the result of premature birth, makes up the largest proportion of community home oxygen therapy, facilitating appropriate early hospital discharge and the outcomes are very good (most infants will discontinue oxygen within 3-12 months). Other indications include respiratory failure due to congenital or acquired lung or airway disease, pulmonary hypertension, sleep disordered breathing, respiratory control abnormalities, neuromuscular disease and primary cardiology disease.

A small proportion of children benefit from oxygen therapy in palliative or emergency use contexts. The majority of children referred for community oxygen therapy will be inpatients at the time of referral and would remain inpatients without community oxygen therapy. While PCOT facilitates early discharge, its current intent is not for use in those Service Users who are anticipated to very rapidly wean off oxygen.

2 Assessment and Indications

Paediatric Oxygen Specialists will apply prevailing local and international clinical guidelines, position statements, evidence-base and best practice documents in the assessment, initiation and monitoring of PCOT. The indications for PCOT are diverse but appropriate sources of guidance include:

- The British Thoracic Society (the most comprehensive international guideline at the time of writing)
- The Thoracic Society of Australia and New Zealand
- The Paediatric Society of New Zealand
- DHB clinical guidelines (eg, Auckland DHB Starship Childrens' Hospital and Newborn Services clinical guidelines)

Adult criteria and guidelines are inappropriate in the paediatric community eg. there is no role for arterial blood gas testing in children.

3 Indication categories and types of oxygen therapy:

Children and young people accepted for PCOT will have an indication for oxygen (see categories below) anticipated to last for 4 weeks or more and have a stable prescription for at least the last week. They will be otherwise appropriate / safe for ongoing community based care.

A. Continuous or sleep related oxygen therapy

1. *Chronic lung disease:* Infants, children and young people with congenital or acquired chronic lung disease (including chronic neonatal lung disease, meconium aspiration syndrome, congenital lung disorders, bronchiectasis, bronchiolitis obliterans, cystic fibrosis, airway diseases, asthma, pulmonary fibrosis), and a persisting oxygen requirement (as defined by prevailing local and international clinical guidelines) and whom may otherwise be appropriately and safely cared for at home.
2. *Acute severe pulmonary insult:* Children recovering from a severe acute pulmonary insult (eg severe pneumonia), with a persisting oxygen requirement (as defined by prevailing local and international clinical guidelines) whom have already experienced a prolonged hospital admission and are otherwise ready for discharge to the community.

3. *Sleep disordered breathing*: Infants and children with sleep disordered breathing, respiratory control, (including excessive periodic breathing / central apnoea), airway or neuromuscular conditions where oxygen therapy is the most appropriate treatment either alone or in conjunction with other treatment modalities.
4. *Pulmonary Hypertension*: Infants, children and young people with idiopathic pulmonary hypertension and a persisting oxygen requirement (as defined by prevailing local and international clinical guidelines) and whom may otherwise be appropriately and safely cared for at home.
5. *Cardiology*: Home oxygen is usually not indicated in children for cyanotic or acyanotic heart disease but this may be appropriate in some cases under the direct supervision of a tertiary paediatric cardiologist. The tertiary paediatric cardiologist will be the child's designated Oxygen Specialist.
6. *Other*: Rarely children with disorders not otherwise described above may be appropriately managed with home oxygen under the supervision or approval of a respiratory specialist.

B. Palliative care

Infants, children and young people, under palliative care with *symptomatic hypoxia*, not described in indications above, who receive *symptomatic relief* by oxygen therapy *not better managed by other means*. It would be expected that duration of community oxygen therapy would be less than six months.

C. Intermittent therapy

Some infants, children and young people are at high risk of intercurrent hypoxia may require continuous oxygen for periods of 1-2 weeks when acutely unwell. Generally this will be best managed by acute hospital admission however in some circumstances, with close clinical supervision, intermittent PCOT may be appropriate. Infants and children weaning off oxygen may go through a period of intermittent oxygen therapy following discontinuation of continuous therapy.

D. Emergency oxygen therapy

In rare circumstances, infants, children and young people whom experience recurrent life threatening hypoxic episodes requiring immediate or urgent oxygen therapy before emergency services can be accessed, may have oxygen provided for this purpose at home. The risks and benefits of this provision need to be considered on a case by case basis and usually the child concerned would be living in an isolated location.

Paediatric Community Oxygen Therapy References

Guidelines for community oxygen for children, British Thoracic Society, 2009.

<http://www.brit-thoracic.org.uk/guidelines/home-oxygen-in-children-guideline.aspx>

Infants with chronic neonatal lung disease: recommendations for the use of home oxygen therapy, Thoracic Society of Australia and New Zealand, 2007, <http://www.thoracic.org.au/professional-information/position-papers-guidelines/oxygen-therapy-home-ventilation/>

Ventilatory Support at Home for Children, A consensus statement of from the Australasian Paediatric Respiratory Group, Thoracic Society of Australia and New Zealand, 2008, <http://www.thoracic.org.au/professional-information/position-papers-guidelines/oxygen-therapy-home-ventilation/>

Care of babies on oxygen at home following discharge from NICU, Newborn Services, National Women's Hospital, Auckland District Health Board, 2011, <http://www.adhb.govt.nz/newborn/guidelines.htm>

Paediatric Society of New Zealand: <http://www.paediatrics.org.nz/>

Starship Clinical Guidelines: <http://www.starship.org.nz/clinical-guidelines/>

APPENDIX 2

ADULT RISK ASSESSMENT FRAMEWORK FOR COMMUNITY OXYGEN THERAPY

High Risk:

Failure to provide the service may result in the client:

- being in unnecessary distress
- imminently being admitted as an in-patient for symptom control
- experiencing irreversible deterioration of their health status requiring their long-term in-patient medical management
- no longer being able to stay in their own residence

Medium Risk:

Failure to provide the service may result in the person:

- being unable to self-manage with resulting dependency on alternative options which may compromise their health status
- having to be referred to a specialist for consultation and/or management of a health condition
- continuing with compromised health status which is not life-threatening but if left permanently unmanaged would lead to more extensive and/or additional problems
- being unable to self-manage thus placing significant pressure on the family, caregiver which may cause their health status to be compromised
- being admitted to short-term care to provide respite for the caregiver

Low Risk:

Failure to provide the Service may result in the person living with a limited degree of compromised health status which is not in any way life threatening but intervention would enable them to return to optimal health status and/or function safely and independently.

This framework is presented as a continuum of risk in terms of a client's health there will, therefore be clients who will not be eligible for the Service as a result of assessment, or reassessment of their risk. This would relate to clients who on assessment or reassessment present with needs that are:

- **beyond** those suggested in the Framework as 'High Risk'. They have excessive and complex needs requiring:
 - management in an alternative residential environment eg, palliative care
 - continuous intervention by a clinical team which includes specialist medical involvement eg, inpatient facility
- **below** those suggested in the Framework as 'Medium Risk'. They are functionally independent and a level of compromised health status, which does not require specialist services. The services to meet their level of need could appropriately be provided by the General Practitioner Nurse Practitioner and / or practice nurse
- **below** those suggested in the Framework as 'Low Risk'. They are clients for whom the sole purpose of the service would be to provide comfort, convenience or emotional security for them and / or family, but for whom no clinical benefit would be gained by the provision of the Service.

APPENDIX 3

Guidelines on Roles / responsibilities for Oxygen Specialist clinical services associated with the Community Oxygen Therapy Service.

This document is a guide to interacting effectively with the Community Oxygen Therapy Service.

The services roles below are outside of the Community Oxygen Therapy Service (the Service) and should refer to their own Service Specifications.

Clinical Service	Description
Oxygen Specialist	<ul style="list-style-type: none">• undertake appropriate assessment of the prospective Service User with regard to need for oxygen therapy according to prevailing local and international clinical guidelines• ensure community oxygen therapy is safe and appropriate for individual Service User.• provide appropriate and timely information on referral to the Service, utilising the Service's agreed referral pathway(s)• respond in a timely manner to enquiry from the Service regarding individuals referred or already receiving community oxygen therapy• ensure the engagement of appropriate community nursing or Oxygen Therapist• educate the Service User's family / carers with regard to the indication, goals and use of community oxygen therapy• undertake / support appropriate and comprehensive hospital discharge planning where appropriate• arrange ongoing regular monitoring of the Service User with regard to oxygen therapy and advise the nursing and oxygen therapy services of any change in the patient status or prescription• provide the Service User / family and or whanau /and carers with appropriate action plans (including those in the event of emergencies, equipment failures) and assist with notification of electricity companies, as appropriate• ensure appropriate referrals / documentation have been made for financial assistance (eg, Child Disability Allowance, Disability Allowance, if applicable) where appropriate• arrange for an alternative Oxygen Specialist if they end their care arrangement with the Service User and / or if the Service User moves out of area. The Oxygen Specialist has a responsibility of informing the Service of the name of the new Oxygen Specialist.