

Oxygen Use in Palliative Care Guideline and Flowchart

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**Gippsland Region
Palliative Care Consortium
Clinical Practice Group**



<i>Policy No.</i>	GRPCC-CPG004_1.0_2011
<i>Title</i>	Oxygen Use in Palliative Care Guideline and Flowchart
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<i>Ratified</i>	GRPCC Clinical Practice Group
<i>Effective Date</i>	October 2011
<i>Review Date</i>	Every two years from effective date.
<i>Purpose</i>	This policy has been endorsed by the GRPCC Clinical Practice Group and is based on current evidence based practice and should be used to inform clinical practice, policies and procedures in health services. The intent of the policy is to promote region wide adoption of best practice. Enquiries can be directed to GRPCC by email enquiries@grpcc.com.au or phone 03 5623 0684
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Policy Statement

The use of supplemental oxygen therapy in people with advanced cancer should be reserved for those with evidence of hypoxemia, and symptoms not responsive to opioids and other pharmacological and non-pharmacological measures.

Supplemental oxygen therapy for non-cancer palliative clients including Chronic Obstructive Pulmonary Disease (COPD) needs to be in accordance with Thoracic Society of Australia and New Zealand Guidelines.

Oxygen therapy should not be initiated without adequate assessment of possible aetiology, as it is not without adverse effects and social consequences.

If oxygen is introduced, an initial limitation of two to four weeks supply subject to assessment review before ongoing supply to a maximum of three to four months is approved.

Definitions

Dyspnoea: shortness of breath

Breathlessness: subjective sensation of difficult or uncomfortable breathing

Hypoxemia: reduced oxygen concentration in the blood with arterial partial pressure of oxygen less than 60mmHg or oxygen saturation of $\leq 90\%$.

Often presents without recognisable signs. Signs of hypoxemia, if present, can include neurological signs such as anxiety, agitation leading to confusion and ultimately loss of consciousness. Other signs include tachypnoea, nasal flaring, use of accessory breathing muscles, changes in vital signs and cyanosis.

Guideline

Supplemental oxygen therapy

In patients with oxygen saturation at rest of $\leq 90\%$, a therapeutic trial of oxygen therapy may be reasonable but continued use can only be justified if there is therapeutic benefit.

While there is no evidence of symptomatic benefit of oxygen use in non-hypoxic clients, oxygen may be given to mildly hypoxic patients (Sao2 90-93%) once other pharmacological and non-pharmacological measures have been exhausted, and if it provides symptomatic relief.

Indications for oxygen therapy

1. Respiratory Disorders

PaO₂ = consistently 55mmHg or less on room air

or

PaO₂ 56-59mmHg with evidence of significant co-morbid conditions (right heart failure, pulmonary hypertension, chronic anaemia or polycythemia)

This group will generally require blood gases to meet the requirements of Thoracic Society of Australia and New Zealand Guidelines.

2. Exertional Hypoxaemia

Evidence of exercise induced oxygen de-saturation on either walk or step test to SaO₂ \leq

88% on room air and demonstrated improvement on supplemental oxygen.

3. Cardiac Disorders

As for respiratory disorder indications noted above.

Oxygen may be prescribed without blood gas measurement in the following circumstances which are primarily considered as palliative:

- severe intractable angina on maximal drug therapy where nothing further can be offered surgically; and
- recurrent episodic pulmonary oedema, severe pulmonary hypertension or severe chronic cardiac failure where no other drug therapy or interventional procedures are possible.

4. Terminal Malignancy

Primary or secondary lung cancer with evidence of hypoxemia and a life expectancy of less than six months.

Caution needs to be exercised in clients with underlying COPD as they may be dependent on hypoxia for respiratory drive.

Contra Indication to Oxygen Therapy

- Current smoker including non-legal substances.
- Patient without cognitive capacity or a carer to appropriately manage oxygen therapy presenting a risk to health and safety of patient and others.

Adverse effects of oxygen therapy include:

1. Promote anxiety – dependency on equipment can lead to anxiety regarding equipment failure with both client and family;
2. Drying of airways – nasal dryness, crusting and bleeding upper airway irritation; increased cough;
3. Trauma due to tubing – Pressure ulcers around ears/ nasal trauma; Trips/ falls from entanglement in tubing;
4. Noisy apparatus – Contributes to insomnia; and
5. Negative impact of quality of life – loss of independence and reduce mobility.

Oxygen Prescription

Optimal management of reversible causes using both non-pharmacological and pharmacological measures to manage dyspnoea or associated perception need to be addressed in the first instance. (refer also to Breathlessness Management Guidelines)

A home oxygen medical prescription detailing oxygen therapy parameters and planned review need to be in place prior to commencement of therapy.

Equipment

Equipment supply should be limited to an oxygen concentrator and back-up cylinder for use

in event of power failure.

Depending on the model, oxygen concentrators deliver 92% \pm 3% oxygen when operated at flow rates \leq 4L/min. The percentage falls with increasing flow rate to 90% \pm 3% oxygen at \geq 5L/min.

Client Safety

Document the provision of verbal and written information regarding use of oxygen concentrator including oxygen therapy prescription and safety issues.

Compliance with adherence with safety requirements and prescribed therapy should be monitored regularly.

Key Performance Indicators

Oxygen use in palliative care is limited to those with hypoxemia, or where all other therapeutic measures have been unsuccessful in managing symptoms, and where there is demonstrated evidence of improved symptom control.

Attachment

Oxygen Use in Palliative Care Flowchart.

References

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Oxygen Use in Palliative Care – Flowchart

