NHS Norfolk and Waveney ICB

Guidance for Home (Domiciliary) Oxygen Therapy Provision

HOME OXYGEN THERAPY SERVICE

Introduction

Best practice guidelines advise that oxygen therapy should be provided for patients in domiciliary settings only after a thorough clinical evaluation and never on a placebo basis. Oxygen should be prescribed depending on the type of therapy required by a patient - for example palliative, ambulatory or long-term therapy. The British Thoracic Society has issued updated clinical best practice guidelines for the assessment and provision of oxygen therapy.

Patients should be advised of the risks of continuing to smoke when receiving oxygen therapy, including the risk of fire. Stop smoking services should be recommended before home oxygen prescriptions. In patients with COPD, oxygen should only be provided if the patient has stopped smoking. The oxygen alert card template is available at https://www.brit-thoracic.org.uk. additional information is available at https://bnf.nice.org.uk/treatment-summaries/oxygen/

Oxygen is prescribed for the treatment of oxygen deficiency (hypoxia) and may be required in management of the following conditions:

- Chronic obstructive pulmonary disease (COPD)
- Severe chronic asthma or other severe pulmonary disease
- Management of cardiac conditions e.g. chronic heart failure
- Paediatric or neonatal conditions e.g. lung or cardiac disease
- Palliative conditions where hypoxia occurs
- Neurological conditions e.g. Cluster headaches, neuro-disabilities in the absence of hypoxia.

Oxygen therapy should not be prescribed:

- to manage breathlessness in patients who are not hypoxic.
- or increased until the cause of hypoxaemia is known

Oxygen therapy should be reviewed appropriately initiated to prevent hypoxaemia and hyperoxaemia, as both conditions are harmful.

According to the British Thoracic Society (BTS) guidelines, oxygen therapy should be prescribed based on the following SpO2 targets:

- **For most acutely ill patients**: Aim for an oxygen saturation (SpO2) of **94-98%**
- **For patients at risk of hypercapnic respiratory failure** e.g., those with COPD, Aim for an SpO2 of **88-92%**

Home oxygen services arrangements across Norfolk & Waveney

Baywater Healthcare https://www.baywater.co.uk/ provide home oxygen services for patients across the Norfolk and Waveney footprint, under a regionally agreed contract.

Baywater Healthcare deliver a seven-day service which includes Bank Holidays, to provide a standard delivery service (3 days), next day and urgent supplies.

a seven-day service would lessen the demand for 4-hour HOOFs and facilitate weekend discharges from acute settings

Home Oxygen Order Form (HOOF)

Baywater Healthcare will provide the oxygen prescribed by clinical staff on a Home Oxygen Order Form (HOOF). The HOOF is available as

HOOF A: Before oxygen assessment, non-specialist or temporary order whilst awaiting oxygen assessment. The HOOF A has sections for ordering static concentrators and cylinders.

HOOF B: After specialist or paediatric oxygen assessment. The HOOF B has sections for ordering LTOT, oxygen cylinders and ambulatory oxygen supply.

Clinicians, including GPs, need to be registered on the Baywater portal to order oxygen. If anyone other than a member of the Home Oxygen Service - Assessment Review (HOS-AR) team has ordered oxygen, a referral to the HOS-AR team is encouraged to ensure proper follow-up and monitoring of the patient. Where possible, patients initiated on home oxygen should have their baseline assessment of flow rate carried out using similar oxygen equipment to the equipment they will be receiving at home.

For clinicians needing support with modality selection and order form completion, the Baywater Healthcare Clinician Portal is a valuable resource. It provides guidance on the Home Oxygen Order Form (HOOF) and other relevant documentation

Oxygen equipment also known modalities

Static oxygen supply

Home Oxygen Concentrators.

Home oxygen concentrators are prescribed for patients requiring continuous oxygen at home or during sleep. These devices draw in air using a filter system to separate oxygen from other gases. Static home oxygen concentrators are electrically powered.

Oxygen concentrators are a more economical option for patients needing long-term oxygen therapy. A concentrator is recommended for patients requiring oxygen for more than 8 hours a day (or 21 cylinders per month). In exceptional cases, if a higher concentration of oxygen is needed, the output of two oxygen concentrators can be combined using a 'Y' connection.

Tubing from the machine can be routed along the floor or skirting board to reduce potential tripping hazards. Oxygen can be supplied from various points around the home, allowing for use both upstairs and downstairs.

Static oxygen cylinders

Static cylinders are prescribed for patients needing high flow rates of oxygen. Due to their size and weight, they are designed for use in a home setting and are not suitable as portable cylinders. Static cylinders serve as a backup for home oxygen concentrators. They are particularly useful during emergencies, such as power outages or malfunctions of the concentrator. Static cylinders also have a minimum capacity to supply the prescribed amount of no less than 4 litres a minute of oxygen for 8 hours.

Non static oxygen supply

Portable Oxygen Concentrators (POC)

Lightweight portable oxygen concentrators (POCs) are effective alternatives to traditional portable systems for oxygen therapy e.g. standard or lightweight ambulatory cylinders These devices function like standard concentrators but are much smaller, making them suitable for use while a patient is mobile. POCs are battery-powered and require periodic recharging. They deliver 3.0 l/m continuous and 6.0 l/m pulsed oxygen.

- **For settings 1, 2, or 3:** One single battery
- **For settings 4, 5, or 6:** Two single batteries or a single double battery.

Clinical studies have shown no significant differences in oxygen saturations and mean 6-minute walk test distances between portable concentrators and ambulatory cylinders. Additionally, patients generally prefer portable oxygen concentrators over ambulatory cylinders due to their ease of use and lighter weight. https://publications.ersnet.org/content/erj/56/suppl64/407

Ambulatory cylinders

Standard ambulatory cylinders are much smaller than static cylinders, making them ideal for active and mobile individuals. These portable cylinders can be carried in backpacks or transported with a trolley. They have a minimum capacity to supply at least 4 litres of oxygen per minute for 1.5 hours.

Lightweight ambulatory cylinders should be reserved for frail patients and young children.
Ideally, portable concentrators should not be prescribed alongside ambulatory cylinders, except in very exceptional circumstances. In such cases, up to two ambulatory cylinders may be supplied.

Liquid Oxygen

Liquid oxygen for home use is provided in both a stationary unit and a portable device. The liquid oxygen is stored in a large base unit on the ground floor of a home and is used to fill the portable units. This system does not require electricity. Liquid oxygen is often prescribed for individuals needing high levels of oxygen, typically more than 6 litres per minute.

Ordering Home Oxygen with a HOOF

Clinicians should indicate the service(s) required on the form, together with details of the patient's oxygen flow rate and hours of use. Where a patient is awaiting referral for a clinical assessment, advice is that a flow rate of *2l/min* might be specified when ordering home oxygen. On assessment, the clinical specialist team will determine whether a patient's flow rate and hours of use require an adjustment.

Baywater Healthcare will provide the equipment as listed on the HOOF, provided it poses no risk to the patient or surrounding areas. Baywater is responsible for arrangements for the payment of patient's electricity costs associated with use of equipment supplied. Electricity costs are associated with the use of concentrators.

Baywater Healthcare:

- will advise clinical staff, patients, and their carers on the use of equipment provided
- are available on a 24-hour 7 day a week basis.

Initiating clinicians/Home Oxygen Service Assessment teams.

Initiating clinicians should counsel patients on the need for oxygen therapy and the regime to be followed to achieve the benefits.

Baywater Healthcare will provide equipment to deliver the required flow rate and hours of use specified on the HOOF. However, if a patient or carer continues to adjust equipment to change the flow rate, the supplier will inform the clinician so that the patient can be advised further as to flow rate or for review of oxygen therapy needs. The supplier cannot change the flow rate specified by a clinician. If a clinician is concerned that a patient may persist with overuse of oxygen, they may wish to put in place monitoring arrangements and discuss these with the supplier, as necessary.

Ordering emergency home oxygen.

Where a clinician decides that a patient requires oxygen at home as soon as possible, Baywater Healthcare may be requested to deliver this to the patient's home within four hours. This service carries a higher service cost than a standard 3- working day or next day installation and should only be used for urgent new orders.

For the avoidance of doubt ambulatory devices cannot be ordered using an urgent 4-hour HOOF. Mixed orders for static and ambulatory devices on the same HOOF can be ordered using an urgent 4-hour HOOF.

It is inappropriate to order home oxygen on an emergency basis where a patient or carer has forgotten to order supplies, particularly if the patient has access to a backup static cylinder to meet their immediate clinical needs.

Changes to a patient's clinical requirements

If for any reason, a clinician wishes to alter a patient's oxygen supply, they will need to inform the patient and complete a new HOOF. Baywater will not be able to make any changes until a revised order for home oxygen has been received.

Holiday arrangements and attendance at school or workplace

A clinician may also wish to make arrangements for a secondary order of oxygen therapy i.e. for delivery to a location other than the patient's home. For example, where a patient remains able to attend school or the workplace or where a patient wishes to go on holiday within England and Wales.

In these circumstances, the clinician will need to complete a secondary HOOF providing details of the address for delivery. In the case of holidays, the patient can arrange this directly with their home supplier provided there are no changes to their current oxygen supply. Baywater will make the necessary arrangements to install and remove this equipment, subject to prior agreement by those concerned (for example, school, employer, hotel etc).

Baywater Healthcare is not responsible or required to secure an agreement to provide home oxygen equipment in a location other than a patient's home. This will need to be obtained by the patient or patient's family in relation to holiday accommodation or the patient's workplace/school. Baywater will be unable to provide oxygen equipment in a location other than the patient's home unless prior agreement has been obtained.

Holidays outside the UK

Patients wishing to take holidays outside the UK should seek advice on reciprocal arrangements for health care between the United Kingdom and other countries. http://www.dh.gov.uk. Patients may also wish to discuss any private arrangements for the provision of oxygen supplies that may be available from their local oxygen service supplier.

Withdrawal of Home Oxygen Service

The supplier is contracted to provide the service ordered until informed otherwise and, thus, will continue to make a charge for the service until notified that it should be withdrawn. Therefore, it is essential that the supplier is informed as soon as possible where oxygen therapy is no longer required by a patient - for example, due to the death of a patient or, following assessment or review of a patient's needs, that the patient no longer requires oxygen therapy.

To stop an oxygen prescription/order, a HOOF must be completed stating that oxygen is no longer required via the Baywater Healthcare clinician portal. Baywater will then arrange for equipment to be collected from the patient's home. Alternatively, a GP can email instructions from an NHS net email account to healthuk@baywater.co.uk.

If due to safety concerns, please write "Safety Removal" clearly on the HOOF or in the email subject section

Death of a patient

Where a patient receiving home oxygen therapy dies, their GP practice or a member of the clinical specialist team treating the patient, should inform Baywater Healthcare so that arrangements can be made for withdrawal of oxygen services.

Removal of Oxygen Equipment from a Patient's Home

Baywater Healthcare may be requested to remove equipment from a patient's home by

- the patient's GP practice
- a member of the HOS-AR team treating the patient
- a person authorised by the ICB.
- a patient or patient's relative or carer. Where a patient, a patient's relative or carer requests removal of oxygen equipment, the supplier is required to inform the initiating clinician and the medicines optimisation team immediately of the details and date of receipt of the request.

Patient Safeguarding

Baywater Healthcare personnel will notify a patients' GP Practice if during a risk assessment home visit, they identify any of the following,

- Mould

- A lack of heating, due to the heating being turned off.
- Smoking
- Any other social issues that may have an impact on clinical outcomes.

Glossary

LTOT: Long Term Oxygen Therapy

HOOF: Home Oxygen Order Form

SpO2: Blood Oxygen Saturation

Document Control Sheet

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Name of document	Home Oxygen Therapy Service
Version	1.0
Date of this version	06.02.2025
Produced by	ICB Medicines Optimisation Team
What is it for?	Home oxygen therapy
Evidence base	NICE, BTS,
Who is it aimed at and which settings?	Healthcare professionals in primary, community and acute settings.
Consultation	ICS Home Oxygen Policy Development Group
Impact Assessment:	
Other relevant approved documents	High flow oxygen therapy for cluster headaches MyAirVO2, warm humidified oxygen therapy
References:	▪ NHS East of England Home Oxygen Contract ▪ NICE Oxygen treatment summaries ▪ British Thoracic society guidelines ▪ Baywater Healthcare ▪ National Drug Tariff ▪ NHS EoE Home Oxygen contract specification
Monitoring and Evaluation	
Training and competences	
Reviewed by:	ICS Home oxygen policy development group Prescribing Reference Group
Approved by:	Medicines Optimisation Programme Board – April 2025
Date approved:	April 2025
Signed:	
Dissemination:	
Date disseminated:	April 2025

Review Date:	April 2027
Contact for Review:	Kemi Banjo

Version Control

Revision History	**Summary of changes**	**Author(s)**	**Version Number**
	New document	MO Team	1.0