# Domiciliary Long-Term Oxygen Therapy (Adults)

**Reference Number:**

NHSCT/10/342

**Target audience:**

Trust staff involved in the prescribing of domiciliary long-term oxygen therapy to adults

**Sources of advice in relation to this document:**

Ewan McGrattan, Principal Pharmacist  
Louise Shephard, Pharmacist

**Replaces (if appropriate):**

Previous legacy version of the Protocol for the prescribing of domiciliary long-term oxygen therapy for adults

**Type of Document:**

Trust Wide

**Approved by:**

Policy, Standards and Guidelines Committee

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**NHSCT Mission Statement**

To provide for all the quality of services we would expect for our families and ourselves
PROTOCOL FOR THE PRESCRIBING OF DOMICILIARY LONG-TERM OXYGEN THERAPY (ADULTS)
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INTRODUCTION

Protocol for the Prescribing of Domiciliary Oxygen Therapy

The consultant will decide if a patient requires oxygen therapy at home. If a patient needs:

- > 15 hrs/day over prolonged period → oxygen concentrator
- < 8 hrs/day or intermittent use → oxygen cylinders

Clinical guidelines and advice for prescribers can be obtained in a report by the Royal College of Physicians titled "Domiciliary Oxygen Therapy Services. Clinical Guidelines & Advice for Prescribers" 1999.

The following main criteria should be met if prescribing for long-term use (>15hrs/day)

1. Patient should fall into the categories for oxygen therapy found in the Royal College of Physician Guidelines 1999:
   - PaO$_2$ on room air should be less than 7.3KPa on 2 occasions 3 weeks apart or
   - PaO$_2$ <8 if there are specific co-morbidities

   **These measurements should not be made during acute exacerbations** and outpatients may be the **most appropriate setting**.

2. Patient should be a non-smoker (preferably for 6 months or more).
3. Patient should be motivated and agreeable to use O$_2$ for the hours / days prescribed by the consultant. LTOT should be used for at least 15 hours a day to offer benefit.

Alternatively, oxygen may be prescribed for **short term** palliative use to relieve breathlessness.

**It is essential that patients who need oxygen are not discharged without appropriate arrangements in place in order to avoid unnecessary distress to patients/carers and possible readmission.**

**Consultant/SHO**

1. Contact respiratory nurse specialist for advice or guidance if required.
2. Obtain a prescription sheet from ward/clinical pharmacist.
3. Fill in the oxygen cylinder/concentrator prescription sheet.
4. Clinical Pharmacist will advise on how to proceed with order.

**Prescribing guidance**

- Humidity is usually only prescribed if oxygen concentration ≥ 35% or 4 litres/min.
- If more than 28% oxygen is prescribed, 2 concentrators are required to deliver adequate flow rate
- Size AF cylinders contain 1360 litres
- Portable oxygen cylinders contain 460 litres
CONFIDENTIAL PRESCRIPTION
OXYGEN CYLINDER THERAPY

HOSPITAL: ____________________  WARD: ____________________  PROPOSED DATE OF DISCHARGE _________________

PATIENT DETAILS:
Name of patients’ relative/carer ________________
Relationship to patient: ____________________
Telephone no. ___________________________
Mobile no: ________________________________

GP DETAILS:
GP Telephone No: __________________________
GP Fax No: ________________________________

COMMUNITY PHARMACIST
Name/Address: _____________________________________________________________
Telephone No: ___________________________ Fax No: _________________________________

GP please complete HS21 prescription with the following details (tick boxes):

(1) Flow rate (litres/min) 2L/min □4L/min□ (for pulmonary fibrosis only)

(2) Hours/day ________________

(3) Nasal cannula no □ yes □

(4) Mask 28% no □ yes □

(5) No. of size AF (1360L) cylinders required per week ________________

(6) No. of portable (460L) cylinders required per week ________________
   (if assessed as necessary)

(7) Supply of regulator and tubing □

Consultant/SHO signature: ___________________________  Date: _____________________
**CONFIDENTIAL**  
**PRESCRIPTION**  
**OXYGEN CONCENTRATOR**

**HOSPITAL:**  
**WARD:**  
PROPOSED DATE OF DISCHARGE: 

**PATIENT DETAILS:**

Name of patients’ relative/carer: 
______________________________

Relationship to patient: 
______________________________

Telephone no: 
______________________________

Mobile no: 
______________________________

**GP DETAILS:**

GP Telephone No: 
______________________________

GP Fax No: 
______________________________

Consultant/SHO Signature:  
______________________________  
Date: _________________________

GP please complete HS21 for the following details:

<table>
<thead>
<tr>
<th>Flow rate (litres/min)</th>
<th>Device</th>
<th>Tick selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 L/min</td>
<td>Nasal cannula</td>
<td></td>
</tr>
<tr>
<td>2 L/min</td>
<td>Nasal cannula</td>
<td></td>
</tr>
<tr>
<td>2 L/min</td>
<td>28% mask</td>
<td></td>
</tr>
<tr>
<td>4 L/min</td>
<td>Nasal cannula</td>
<td></td>
</tr>
<tr>
<td>8 L/min</td>
<td>35% mask</td>
<td></td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(2) Hours/day: 

(3) Humidified: yes ☐  no ☐  (only if ≥ 35% or 4 litres/min)

(4) Number of concentrators: (O₂ > 5 litres/min requires 2 concentrators)

(5) Emergency back up kit and regulator: ☐

(6) Oxygen points: living room ☐  bedroom ☐  both ☐

**GP Prescription - please post to**

Customer Services Manager  
Air Liquide Medical  
Unit 5 Craigmore Industrial Estate  
Craigmore Road,  
Newry BT35 6PL  
Telephone: 0500 526007  
Fax: 30825230
Procedure To Arrange Oxygen Cylinder Therapy

1. Liaise with prescriber & advise on oxygen policy

2. Ensure details of prescription are filled in completely.

3. Liaise with team leader/named nurse looking after the patient to obtain a general background history of the patient and details of carers’/relatives’ name and telephone number.

4. Liaise with patient/relative/carer to establish a choice of Community Pharmacy which is a contractor in the locality of the patient’s home (list of contractors available in Medicines Information or from the BSO website: http://www.hscbusiness.hscni.net/services/Family%20Practitioner%20Services/General%20Pharmaceutical%20Services/General%20Public/Pharmaceutical%20List/current/PL1010.pdf

5. Advise patient/carer on the safe use of oxygen therapy and supply the patient information leaflet and a patient information leaflet from BOC. Establish a suitable time for the Community Pharmacist to contact them regarding delivery. Enter the following details on the patient information leaflet: the flow rate, oxygen mask (28%) or nasal cannula and hours per day the oxygen is to be used.

6. Advise the patient of the risk of fire/burns if smoking in the presence of oxygen cylinders.

7. Ask patient/relative/carer to sign consent form. File in miscellaneous section of notes.

8. Contact the community pharmacist and give details of the prescription and a suitable time to contact the patient. Fax a copy of the prescription to the Community Pharmacist, if required.

9. Once the Community Pharmacist confirms they can supply the required number of cylinders, details of the Community Pharmacist (contact name and telephone number) can be given to the patient/carer/relative.

10. Contact GP to request a prescription and fax required details from hospital prescription form and patient consent form to GP.

11. On Saturdays, Sundays and Bank holidays, Dalriada Urgent Care should be contacted (Tel (028) 25663500) to obtain a prescription to supply to the community pharmacy. The patient’s GP will also need to be contacted once available to ensure the supply is continued.

12. Instruct patient/carer/relative to collect prescription from GP and take to the Community Pharmacist.

13. Record in patient’s notes details of delivery date and inform team leader/named nurse.

14. A copy of the prescription sheet must be put into the patient’s notes, a copy retained by pharmacy for audit purposes and a copy to respiratory nurse specialist via internal mail to ensure follow-up in community.

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1 In the out-of-hours or Friday afternoon situation, please ensure the quantity of cylinders the GP is asked to prescribe is sufficient to meet the patient’s needs over the weekend period. If discharge precedes or is close to a Bank holiday ensure sufficient cylinders can be supplied to cover
Procedure for Clinical Pharmacist to Arrange Oxygen Concentrator

1. Liaise with prescriber and provide advice on Oxygen Policy

2. Ensure details of prescription are filled in completely.

3. Liaise with team leader/named nurse looking after the patient to obtain a general background history of the patient and details of relatives'/carers' name and telephone number.


5. Contact Air Liquide Medical. Details required:
   - the number of concentrators prescribed
   - flow rate prescribed
   - hours/day required
   - back-up cylinder prescribed
   - humidification prescribed
   - mask/nasal cannula prescribed

Air Liquide can usually undertake to deliver and install the concentrator within 3 days. Confirm the likely date of installation. Fax through the required details to Air Liquide.

6. Contact GP to request HS21 prescription to be faxed, then posted to Air Liquide. Fax through the required details to GP practice including patient consent form.

7. Advise the patient on the safe use of oxygen therapy and provide a patient information leaflet. Document on the patient information leaflet the flow rate, mask % or nasal cannula and hours per day oxygen is to be used.

8. Advise the patient of the risk of fire/burns if smoking in the presence of the oxygen concentrator.

9. Record in the patient’s notes details of oxygen arrangements & inform team leader/named nurse.

10. A copy of the prescription sheet must be put into the patient’s notes, a copy retained by pharmacy for audit purposes and a copy to respiratory nurse specialist via internal mail to ensure follow-up in community.

11. Inform the respiratory nurse team of the concentrator order if the concentrator is prescribed for a respiratory diagnosis and the respiratory nurse has not been involved in the patient care.
OXYGEN CYLINDER THERAPY
PATIENT INFORMATION LEAFLET

PATIENT ADDRESSOGRAM

Flow rate: ________________ (litres/min)

Hours per day oxygen is to be used: _______

Mask ☐  nasal cannula ☐

Pharmacist: ______________
Date: ___________________

You have been prescribed oxygen therapy using oxygen cylinders. The hospital pharmacist will arrange for a community pharmacy to supply oxygen therapy.

This will include:
(1) oxygen cylinder(s)
(2) a regulator - this fits onto the head of the cylinder and determines the flow rate of the oxygen
(3) an oxygen mask or nasal cannula (Ensure that you get the same type of mask each time)
(4) oxygen tubing
(5) key to open and close the regulator

Important Points to Note:

1. Follow the directions supplied to open and close the regulator.
2. NEVER use oil or grease on oxygen equipment.
3. Do not tamper with the unit.
4. If you hear gas leaking - switch off and contact the Community Pharmacist immediately.
5. Cylinders should be stored under cover, away from any sources of heat or ignition and away from combustible materials.

**Smoking and Oxygen Therapy**
Patients who continue to smoke are unlikely to gain much benefit from oxygen therapy. **THERE IS ALSO THE ADDITIONAL HAZARD OF A FIRE AND FACIAL BURNS.**

**Nebulisation of Drugs**
Nebulisation requires a flow rate of 6 litres per minute. Oxygen cylinders cannot provide this flow rate and therefore **CANNOT** be used for nebulisation of drugs.

**Portable Cylinders**
If you need Oxygen for mobility ask your GP and community pharmacist about obtaining a portable cylinder.

All empty cylinders must be returned to the Community Pharmacist in order to obtain a replacement. If you are no longer prescribed oxygen, please contact your Community Pharmacist for collection.
You have been prescribed oxygen therapy using an oxygen concentrator. An oxygen concentrator is a machine which produces oxygen from the air. Air Liquide Medical is the company who will install the machine. Installation will take place during the hours 8.30am to 5.00pm Monday to Friday. The concentrator needs a single 240 volt electricity socket. Company engineers will position the oxygen where needed in your home. Full instructions will be given to you on the use of the system by the engineer.

You will be visited by an engineer every three months to check the performance of the oxygen concentrator. During this visit the meter on the machine is read enabling Air Liquide to reimburse you for the electricity costs incurred in running the machine. It will be reimbursed directly onto your NIE quarterly account.

**Emergencies**

You will be provided with an emergency back-up cylinder(s) with a regulator for emergency use e.g. in the case of a local power failure, or if the machine breaks down. Air Liquide will respond to an emergency call within 10 hours (phone 0500 526007 if you have a problem). If the power failure is likely to last for a significant time, and in the unlikely event that Air Liquide indicate they cannot respond within this timescale, you should contact your GP. They will be able to prescribe additional oxygen cylinders in the interim until your concentrator is repaired.

**Remember your emergency back-up cylinders will only last for 10 hours.**

**Nebulisation of Drugs**

Nebulisation requires a flow rate of 6 litres per minute. Oxygen cylinders and oxygen concentrators cannot provide this flow rate and therefore **CANNOT** be used for nebulisation of drugs.

**Smoking and Oxygen Therapy**

Patients who continue to smoke are unlikely to gain any benefit from oxygen therapy. **THERE IS ALSO THE ADDITIONAL HAZARD OF FIRE AND FACIAL BURNS.**

**Oxygen and Mobility**

Having oxygen should enable you to have more energy to do the things that you enjoy. Try and incorporate oxygen therapy into your daily routine, e.g. by using overnight, so that you do not become housebound.

You may wish to have a portable oxygen supply to use when travelling. Discuss with your Community Pharmacist and GP about obtaining a smaller portable cylinder.

If you are not staying at your usual address, contact Air Liquide for advice on moving the concentrator elsewhere.
Home Oxygen Consent Form

I am the patient named above □ or I am a relative/carer for the above patient □

The pharmacist has explained the arrangements for supplying oxygen at home. I understand these arrangements.

I understand that the pharmacist will give the oxygen supplier* information necessary to enable the supplier to deliver the oxygen system. I understand that information will be exchanged between the hospital pharmacist, oxygen supplier and GP.

I also agree to give the supplier reasonable access to the above address so that the supplier can install, service, and remove the oxygen system as required.

Signature________________________________________
Patient / relative / carer

Print name_____________________________________

Date_____________

*oxygen supplier = Community Pharmacist for oxygen cylinders
Air Liquide for oxygen concentrators