Home Oxygen Therapy in NHS Scotland

Level 1 – Education for Patients & Carers
Changes to the National Oxygen Service in Scotland in 2012-2013

• NHS Boards now pay for own home oxygen services.
• Opportunity to review and improve oxygen prescribing and service delivery in Scotland.
Why The Need For Oxygen?

• Oxygen may be prescribed for patients with low blood oxygen levels.
• This will only be done following specialist assessment by a respiratory clinician in most cases.
• There are some exceptions.
Since 1989 Dolby Vivisol have supported HFS in providing the Home Oxygen Service.

HFS receive and verify the Scottish Home Oxygen Order Form (SHOOF) from Oxygen Prescribers.

HFS staff instruct Dolby Vivisol of patient’s requirements.

Dolby Vivisol engineers carry out a risk assessment, install equipment, and set prescribed oxygen flow rate.

Dolby Vivisol, based in Stirling have experienced staff throughout Scotland delivering, maintaining and servicing oxygen equipment.
DO’s Of Safety With Oxygen

• Oxygen is a fire accelerator and can cause rapid burning.
• DO keep at least 3 metres from sparking objects, naked sources of flame and extreme heat.
• DO ensure oxygen supply is switched off when not in use.
• DO allow at least 30 minutes after turning off oxygen before it is safe to go near sources of heat for example when cooking as oxygen may build up in material and make it more flammable.

...
DO’s Of Safety With Oxygen

• DO ensure oxygen is used in a well ventilated room.
• DO ensure a firebreak (where provided) remains in the oxygen tubing (the blue arrow should be pointing toward patient.) The firebreak will stop fire spreading down the oxygen tubing in the event of a fire.
• DO take care to avoid trips and falls over oxygen tubing.
DO NOT’s To Ensure Safe Use Of Oxygen

• DO NOT allow smoking around oxygen (a risk assessment by a Dolby Engineer requires the patient to sign that they agree not to smoke).

• DO NOT apply oil or grease to equipment, this includes patients using face or hand creams that are oil based. Only creams that are water based should be used. Ensure hands are clean and dry when handling oxygen equipment.
DO NOT’s To Ensure Safe Use Of Oxygen

• DO NOT lay mask or nasal cannulae down for any length of time when oxygen in use.
• DO NOT tamper with oxygen equipment or change flow rate.
• DO NOT let oxygen tubing get trapped which may result in reducing or stopping the flow of oxygen.
What To Do If Equipment Develops A Fault

• In cases of a fault or concerns regarding oxygen equipment please contact Dolby Vivisol on 0800 833531 immediately.
• Please do not wait until the backup cylinder is nearly empty before calling.
• DO NOT change the oxygen flow rate without consulting the Oxygen Prescriber.
• DO NOT attempt to dismantle, repair or otherwise interfere with the equipment.
Planning Holidays UK and Abroad
For Oxygen Users

• For UK holidays please write or email Health Facilities Scotland or for initial enquiries please call 0131 275 6860.
• 3-4 weeks notice should be given. Please provide full holiday address including dates, contact telephone number and any other relevant information.
• There has been a recent change to your oxygen prescription then contact your Oxygen Prescriber.
• Please note HomeFill is not available for holiday use.
• Liquid oxygen may be available but requires considerable planning.
Planning Holidays UK and Abroad
For Oxygen Users

• Confirm that permission has been granted from the holiday property owner to allow access.

• Oxygen equipment that is used at home should not be taken out of the UK or left at temporary address.

• Sufficient supplies should be arranged for return journey. Empty cylinders should be returned to the original supplier.

• Travelling abroad with oxygen may not be a free service, contact HFS for advice on 0131 275 6860.
Concentrators

- A standard concentrator delivers 1 to 5 litres/min.
- A high flow concentrator delivers up to 9 litres/min.
- A low flow concentrator delivers 0.1 to 2 litres/min.
- A low low flow concentrator delivers 0.1 to 0.8 litres/min.
- A back up cylinder (on 2 litres/min provides 20 hours use) will provide oxygen for power failure and equipment faults.
Concentrators

• A humidifier can be provided for flow rates of 4 litres or more (humidifier requires to be requested by the Oxygen Prescriber).
• A fixed install can be done if required to reduce trip hazard, tubing can be fixed.
• In larger properties a second concentrator may be required.
A Typical Static Concentrator

- Oxygen tubing connector
- Flow meter
- Indicator lights
- On/off switch
The Air Filter should be cleaned weekly.

To clean:

- Remove filter and wash in a solution of warm water and washing up liquid.
- Rinse thoroughly with warm tap water.
- Allow to dry naturally.
- Make sure filter is dry before reinstalling.
- Do not use concentrator without a filter or while filter is still damp as this may affect operation.
Common Faults and Solutions

• If the concentrator sounds or shows an alarm (red or orange light) the patient should switch to the back up supply and call Dolby Vivisol immediately.
• Check the following: Is the electricity connector plugged in and the concentrator switched on?
• Is the air intake filter obstructed or clogged?
• Is the mains electricity supply connected to the machine.
• Is the oxygen tubing kinked, clogged or trapped?
Service Delivery and Replenishment

• Concentrators will be installed within 4 working days for standard requests.
• 2 day and same day requests should only be requested after careful consideration and when absolutely necessary. Additional charges will apply for these services.
• 10 working days should be allowed for new liquid oxygen requests.
• Patients should contact Dolby Vivisol and allow 4 working days for replenishment of cylinders.
• Masks and nasal cannulae will be provided as per SHOOF and replenished by Dolby Vivisol.
Static Oxygen Cylinder/Back Up Cylinder

- The static cylinder may be the main source of oxygen supply or as a back up to the concentrator in case of power failure or emergency.
DO’s and DON’T’s When Using A Static Cylinder

• DO wash and dry hands prior to using an oxygen cylinder and avoid use of hand creams etc.
• DO store in a vertical secure position or laid down, as long as the cylinder is not able to roll around.
• Avoid contamination from external agents.
• Check cylinder is working and ready for use on a weekly basis.

Please refer to information leaflets provided to patients for further advice.
Using Your Cylinder

- Check cylinder is intact and not damaged.
- Attach your oxygen tubing to the outlet.
- Turn on the oxygen cylinder.
- Set the correct flow rate as per prescribed in the SHOOF.
- Fit nasal cannulae or facemask to patient as per SHOOF.
- When the oxygen is not in use close the open/close dial by turning it clockwise and turn the flow rate to zero.
- Other flow probes maybe attached to provide lower flow rates, particularly in the cases of infants and children.
Portable Oxygen Cylinders

- For patients to use to enable them to remain independent and help keep them mobile.
- The prescribed flow rate and duration will determine the cylinders that are provided.
- A carry bag will be provided.
Oxygen Conserving Device

- Conserving devices are available on many different types of equipment. Patients will require individual assessment for suitability prior to use.
- They deliver a precise amount of oxygen for a short period of time when a patient breathes in and triggers the oxygen release (pulse/demand delivery).
- Only to be used if prescribed.
- Cuts down on the waste of oxygen that is not used.
- Not recommended for use with children under age seven years old.
- Not to be used when patients are sleeping.
HomeFill System

- HomeFill may not be suitable for everyone.
- It is particularly suitable for very active patients who use large amounts of portable cylinders.
- Works by taking oxygen from the concentrator, compressing it and filling it safely into the portable cylinders provided.
- HomeFill is most suitable for patients who can activate a pulsed delivery system.
- 2 portable cylinders and bags supplied, 1 litre (5 hours at 2 pulsed dose setting) and 1.7 litre (9 hours at 2 pulsed dose setting).
- Not provided for holiday use.
• Check equipment is clean, dry and free from oil/grease.
• Cylinder valve should be in the off position.
• The metal collar on the filling post on the compressor is pushed down to reveal green dots.
• Connect the cylinder to the compressor by pushing the cylinder until it clicks with the self-fill port.
HomeFill…Cylinder Filling

- Switch on the concentrator and compressor.
- The cylinder is full when full indicator light is on.
- When filling is complete, disconnect and remove the full cylinder and replace the cap on the filling port.
- Oxygen cylinders can be filled overnight.

For further information please see the patients leaflet on HomeFill.
Liquid Oxygen (LOX).

- This system comprises of a reservoir unit called a dewar.
- A dewar or reservoir contains liquid oxygen (stored as a vapour at -183 degrees Celsius so will evaporate in time).
- The portable unit is called a flask and is filled from the dewar.
- LOX is a specialized modality which is prescribed by the Oxygen Prescriber and is suitable for high flow applications where patients are particularly mobile.
Liquid Oxygen (LOX).

- As it is stored as a liquid at such low temperatures it can potentially cause burns if not handled with care. Never touch cold parts on either unit or allow liquid oxygen to come into contact with your skin, as this could cause a serious burn.
- Please see patient leaflet for filling instructions.
Liquid Oxygen DO’s and DON’Ts

• DO store liquid oxygen reservoir/ dewar upright.
• Ensure filling connections on flask and dewar are clean and dry, using a lint free cloth, before every attempt to refill flask. This will ensure the connectors do not freeze together.
• Leave flask to settle for approximately 20 minutes before using after filling.
• DO NOT attempt to move your liquid oxygen dewar without seeking advice from staff at Dolby Vivisol.
• DO NOT tamper with the equipment.
Liquid Oxygen DO’s and DON’Ts

• DO NOT use force to remove flask from dewar after filling.
• If there is a leakage, stay away from dewar and ventilate area, where safe to do so, and call Dolby Vivisol immediately. DO NOT switch on any electrical item in the room until it has been well ventilated.
Basic Hygiene With Consumables

• Nasal Cannulae: Clean daily with warm soapy cloth. Never immerse cannulae in water. Wipe dry.

• Facemasks: Clean daily in warm soapy water, rinse and leave to air dry.

Patients are given replacements at each quarterly service visit by a Dolby Vivisol engineer. Replacements can also be ordered direct from Dolby Vivisol by calling 0800 833531
Special Groups

Information is supplied for special groups of patients, these include:

• Babies, toddlers and Children on oxygen

• Teenagers and Adolescents on oxygen
Useful Contacts

Oxygen Therapy Service, Health Facilities Scotland
Gyle Square
1 South Gyle Crescent
EDINBURGH
EH12 3EB
0131 275 6860
nss.oxycon@nhs.net

Dolby Vivisol
North Suite
Lomond Court
Castle Business Park
STIRLING
FK9 4TU
0800 833 531
Questions