

DRUG UPDATE

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Domiciliary Oxygen Therapy

Changes to the domiciliary oxygen contract, to be implemented during 2005, mean that specialists will be able to prescribe oxygen therapy in the home. GPs will retain their ability to prescribe oxygen, usually as short-burst oxygen therapy for episodic and/or exercise-induced breathlessness or pending referral to a Specialist unit for assessment for long term or ambulatory oxygen needs. Updated Royal College of Physicians' guidelines (to be issued later this year) will recommend that ambulatory oxygen therapy is only prescribed where a full assessment has been undertaken by a specialist supported by regular patient review. Under the new arrangements, ambulatory and liquid oxygen will become available on prescription for the first time. A new prescription form is being developed for oxygen therapy, on which the prescriber will set out the patient's oxygen needs.

What is it?

Oxygen therapy (OT) is prescribed for hypoxaemia to increase alveolar oxygen tension and decrease the work of breathing necessary to maintain a given arterial oxygen tension.¹ Improved survival has been demonstrated with long-term oxygen therapy (LTOT) for a minimum of 15 hours per day, in normo- & hypercapnic COPD patients.² Intermittent OT can be used for hypoxaemia of short duration, e.g. asthma or for patients with advanced irreversible respiratory disorders (e.g. COPD) to increase exercise capacity or to ease breathlessness.¹ Oxygen is available in cylinders in either liquid or gaseous form or via a concentrator. The liquid form is under higher pressure than the gaseous form, taking up less space. Therefore, more liquid oxygen fits into a cylinder enabling it to last longer compared to gaseous oxygen.

What is changing?

Currently, GPs prescribe home oxygen therapy and gas cylinder oxygen is delivered and collected via pharmacies. Oxygen concentrators, used by patients with long-term oxygen needs, are provided under contract by specialist companies.¹

In June 2003, the Government announced plans for a modernised, integrated oxygen service to be introduced in 2005.³ Specialist respiratory staff will also be able to prescribe home OT recognising their greater expertise in assessing patients' long-term and specific oxygen needs.⁴ GPs will retain their ability to prescribe oxygen. This is likely to be short-burst therapy (SBOT) for episodic and/or exercise-induced breathlessness or pending specialist assessment for LTOT or ambulatory oxygen therapy (AOT).⁴ Currently, ambulatory and liquid oxygen are not prescribable on FP10. These will become available under the new service and a separate OT prescription form will be made available where the clinician can set out the patient's oxygen needs.⁴ The

service contractor will be required to apply their wider knowledge and expertise to ensure that these needs are met.⁴ The new oxygen service contract will require contractors to supply an integrated service on a 7-day/24-hour basis, i.e. concentrator, cylinders or ambulatory service or a combination as appropriate, plus administration equipment. This will be delivered directly to the patient's home within specified response times, including emergency and out-of-hours services.⁴ Pharmacy contractors currently providing a cylinder service may be unable or not wish to provide an integrated service under a contract to be awarded following competitive tender this summer.⁴ One of the implications for budget holders over the next 12 months includes managing the hardware, e.g. only keeping sufficient headsets to meet current requirements.

When should oxygen therapy be prescribed?

The guidance below is drawn from the 1999 Royal College of Physicians' (RCP) guidelines on domiciliary oxygen,² which are being updated for re-issue later this year.⁴

LONG-TERM OXYGEN THERAPY

LTOT is to be prescribed by specialists alongside the RCP criteria while GPs prescribing is likely to be for SBOT or pending specialist assessment for LTOT (or AOT).⁴

SHORT-BURST OXYGEN THERAPY

SBOT is used for the relief of episodic breathlessness and/or exercise-induced dyspnoea.² It should be continued only in those patients with an improvement in breathlessness and/or exercise tolerance² or pending specialist assessment.⁴

The 1999 RCP guidelines state that there is no adequate evidence to confirm or refute the use of SBOT. Assuming other treatment options have been maximised it should be limited to patients with severe chronic lung disease or heart failure and in palliative care.²

AMBULATORY OXYGEN THERAPY

AOT aims to improve exercise capacity, and/or dyspnoea and correct exercise desaturation enabling greater mobility.² The benefits of AOT, which is not currently available on FP10, are not seen in all patients and there is little information on its long-term efficacy unless used in conjunction with ongoing LTOT. It should only be prescribed to active patients with irreversible respiratory disorders (except heart failure) that meet the specific criteria stated in the RCP guidelines after specialist assessment.²

What other options are there?

The patient's medical management should be optimised prior to prescribing oxygen therapy.⁵

NEWER OXYGEN DELIVERY METHODS

Currently, only gas cylinders or concentrators are available via FP10. For regular, long-term oxygen use, concentrators can be considered to be more cost-effective.⁴

CONSERVING DEVICES

These devices allow oxygen to be delivered only during inspiration. Compatible with all cylinders, delivery time

can be increased up to 4 fold.⁶ Conserving devices will be provided under the new contract unless the prescriber states otherwise.⁴

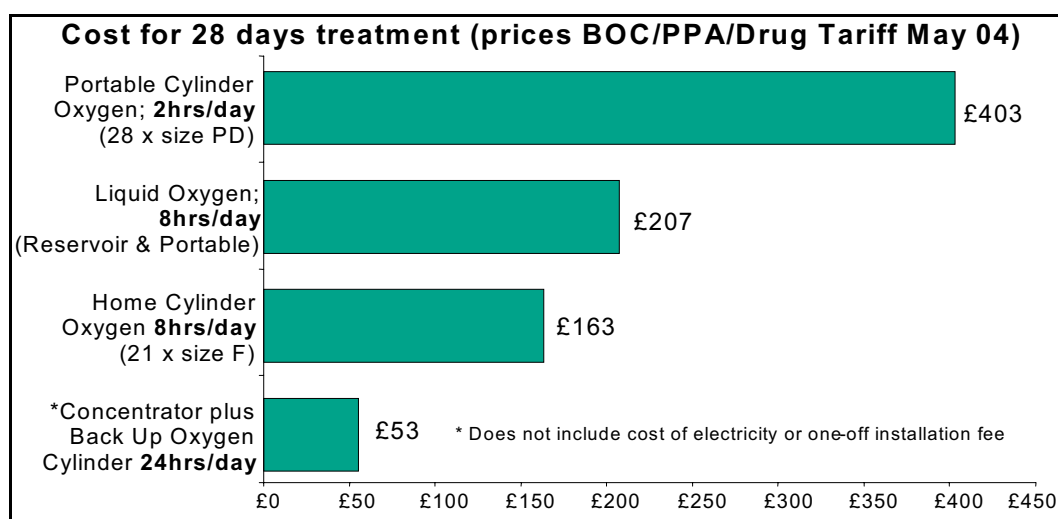
LIQUID OXYGEN

At 2L/min, the portable cylinder lasts around eight hours.⁷ To be cost-effective, liquid oxygen (LO) should be prescribed to more active patients who spend time away from home. It is not cost-effective to supply portable LO to patients who leave home infrequently.⁴ Regular review is necessary to ensure appropriate use of LO and that patients' circumstances remain unchanged. Under the new arrangements, availability of liquid oxygen will be left to the technical expertise of the service provider.⁴

How much prescribing goes on?

In the former Northern and Yorkshire region, 110,000 oxygen cylinder prescription items (all sizes) were dispensed between Jan and Dec 2003 with a net ingredient cost of around £2.7million. This represents a 5% increase in prescription items from 2002.⁸ Information on the cost of conserving devices or liquid oxygen supplied is unavailable.

How much does it cost?



REFERENCES

1. British National Formulary. No 47. March 2004.
2. Royal College of Physicians. Domiciliary oxygen therapy services: clinical guidelines & advice for prescribers. June 1999.(G)
3. Department of Health. Domiciliary oxygen service: Modernised, integrated service. Chief Executive Bulletin June 2003. Available from www.doh.gov.uk/cebuletin/oxygenjune03.htm
4. Personal Communication. Department of Health. 17/05/04
5. PRODIGY. Chronic Obstructive Pulmonary Disease . October 2001. Available from www.prodigy.nhs.uk. Accessed 16/02/04. (G)
6. Petty T. National lung health education program, Guide to home Oxygen. Available from <http://www.nlhep.org/resources> Accessed 8/4/04
7. Personal communication. BOC. March 2004
8. ePACT data. Available from www.epact.ppa.nhs.uk. Accessed 5/2/2004

KEY

G-guideline, O-open study, MA-meta analysis, R-review, U-unpublished, Abs- abstract, E-editorial

Regional Drug and Therapeutics Centre
Wolfson Unit, Claremont Place, Newcastle upon Tyne NE2 4HH
Tel: 0191 232 1525 Fax 0191 260 6192 E-mail: nyrdtc.di@ncl.ac.uk
Website: www.nyrdtc.nhs.uk