PostScript

LETTER TO THE EDITOR

Impact of new home oxygen service on respiratory units

Long term oxygen therapy (LTOT) is recommended in guidelines on COPD^{1,2} and in other conditions with chronic hypoxia.³ Previous studies have shown that supplemental oxygen in patients with COPD improves exercise capacity.⁴ In February 2006 the provision of home oxygen therapy in England and Wales changed significantly to include the prescription of ambulatory oxygen for the first time. The British Thoracic Society (BTS) Working Group on Home Oxygen Services has produced guidelines providing recommendations on how assessments for LTOT, ambulatory oxygen, and follow up of patients should be performed.⁵ Estimates are given for the amount of time the assessments will take. We have used this guideline to establish the number of individuals in our district referred for LTOT and meeting grade 1 (low activity mainly house-bound) or grade 2 (active and leave the house regularly) oxygen requirements and so calculate the impact that the new service will have on a hospital serving a population of 500 000. Southend Hospital serves a district with a population of 325 000.

The number of patients on LTOT in March 2004 in the district was ascertained from the list kept by the local oxygen provider. All patients referred for LTOT assessments from the beginning of March 2004 to the end of February 2005 were recorded prospectively. Further information was collected from all those referred from the end of November 2004 to the end of July 2005 who had completed their assessment and met the criteria for LTOT.

The BTS Working Group estimates that, in the first year, it will take 7.5 hours to assess and follow up patients for LTOT and 4.5 hours to assess each patient for ambulatory oxygen.⁵ Each subsequent year will require 3 hours for follow up. They estimate that 1 Whole Time Equivalent (WTE) is equivalent to 1500 hours of staff time per year, which equates to 1200 hours of clinical time per year. Applying this to our data, 89 new patients were referred for LTOT assessment in 1 year and 35% did not meet the criteria for LTOT; 46.5 hours of work/year would be required to assess them, assuming that all have two assessments. 65% of our patients did meet the criteria for LTOT; 53% of these were in grade 1, so grade 1 patients will require a total of 230 hours for assessment for LTOT over the year, while 47% had a grade 2 requirement for oxygen so grade 2

If you have a burning desire to respond to a paper published in *Thorax*, why not make use of our "rapid response" option?

Log on to our website (www.thoraxjnl.com), find the paper that interests you, and send your response via email by clicking on the "eLetters" option in the box at the top right hand corner.

Providing it isn't libellous or obscene, it will be posted within seven days. You can retrieve it by clicking on "read eletters" on our homepage.

The editors will decide as before whether to also publish it in a future paper issue.

patients will require 327.12 hours/year for LTOT and ambulatory oxygen assessment. 21 patients were hypoxic on admission but their PaO_2 was >7.3 kPa at the time of LTOT assessment. These patients could still be assessed for ambulatory oxygen (grade 3). They will require 94.5 hours of ambulatory oxygen assessments. The total time required to assess and follow up new patients in a year is therefore 698 hours.

One hundred and ninety one patients are already on LTOT. If 50% are grade 2, they will require 427.5 hours for ambulatory oxygen assessment. All 191 will require two follow up visits for LTOT taking 3 hours each, a total of 573 hours. This means that, in all, 1000.5 hours will be spent assessing existing patients for ambulatory oxygen and LTOT.

In a population of 500 000 this equates to 1074 hours for new patients and 1539 hours for existing patients. The total WTE required will be approximately 0.9 (1074/1200) for new patients and 1.3 (1539/1200) for existing patients. In the first year 2.2 WTE will be required, while in the second and subsequent years all new patients will need to be assessed and all the existing patients on LTOT and ambulatory oxygen will need to be followed up: $(0.9 + 0.5) = 1.4$ WTE.

Many units will already have some provision for LTOT assessment and follow up. The added resource required for ambulatory oxygen assessments and follow up can be estimated by subtracting the existing resource from the estimates in this letter. Assuming LTOT assessments and follow up are not already being carried out according to the BTS Working Group guidelines, without added resources in the first year there will be an instant waiting list of some months for assessment for ambulatory oxygen.

J K Quint, L Ward, M Monaghan, S O Ansari, K G Lingam, A G Davison
Southend Associate University Hospital, Southend, UK

Correspondence to: Dr A G Davison, Consultant Respiratory Physician, Southend Associate University Hospital, Foundation Trust Southend SSO ORY, UK; adavison@southend.nhs.uk

doi: 10.1136/thx.2006.065565

References

- 1 **Global Initiative for Chronic Obstructive Lung Disease (GOLD).** *Global strategy for the diagnosis, management and prevention of COPD*, 2001, www.goldcopd.com.
- 2 **Royal College of Physicians.** Chronic obstructive pulmonary disease. National clinical guideline on management of chronic obstructive pulmonary disease in adults in primary and secondary care. *Thorax* 2004;59(Suppl 1):1-232.
- 3 **Royal College of Physicians.** *Domiciliary oxygen therapy services. Clinical guidelines and advice for prescribers.* London: Royal College of Physicians, 1999.
- 4 **Garrod R, Paul EA, Wedzicha JA.** Supplemental oxygen during pulmonary rehabilitation in patients with COPD with exercise hypoxaemia. *Thorax* 2000;55:539-43.
- 5 **British Thoracic Society Working Group on Home Oxygen Services.** *Clinical component on the assessment for provision of home oxygen services in England and Wales.* London, British Thoracic Society, 2005, www.brit-thoracic.org.

NOTICES

Clinical Consensus on COPD Conference

"Clinical Consensus on COPD", organised by Reed Medical Education, is a new European event for primary and secondary healthcare professionals to tackle challenging issues centred on the latest clinical best practice in COPD diagnosis, management and therapy. A two-day conference will be held in London on 2-3 March 2007. For further information visit www.clinical-consensus-copd.com.

Pharmacology of Asthma and COPD

A course on the Pharmacology of Asthma and COPD organised by Professor Peter Barnes will be held on 20-23 November 2006 at the National Heart & Lung Institute, Imperial College London in collaboration with the Royal Brompton Hospital. Enquiries should be sent to the Postgraduate Education Centre, National Heart & Lung Institute, Imperial College London, Guy Scadding Building, Royal Brompton Campus, Dovehouse Street, London SW3 6LY, UK. Telephone 020 7351 8172. Fax: 020 7351 8246. Email: shortcourses.nhli@imperial.ac.uk.