

HERTFORDSHIRE BUSINESS CASE FOR THE PROVISION OF OXYGEN THERAPY ASSESSMENTS IN THE COMMUNITY

INTRODUCTION

Oxygen provision has been provided by BOC for the Eastern Region since the DoH commissioned specific contractors to supply a Home Oxygen Service since February 2006.

Home oxygen is an essential and expensive intervention for patients therefore it is important that it is prescribed appropriately.

The British Thoracic Society has updated best practice guidelines on assessing and prescribing oxygen therapy and recommend that patients with Long term or ambulatory needs should be referred to specialist teams. Nice guidelines on the treatment of patients with Chronic Obstructive Pulmonary Disease also highlight the importance of this assessment and monitoring.

This paper is to consider the need for Specialist Community Clinical posts to provide appropriate treatment and monitoring for respiratory patients in the community.

BACKGROUND

The main purpose of the new oxygen strategy is to ensure that patients requiring oxygen are properly assessed as to their need for oxygen therapy and monitored once it has been prescribed.

This assessment is particularly needed for patients who are going on to concentrators for long term use and require oxygen for ambulatory use (while they are walking.) Home oxygen is an essential and expensive intervention for patients therefore it is important that it is prescribed appropriately and monitored by appropriately skilled staff.

CURRENT SITUATION IN HERTFORDSHIRE

North and East Hertfordshire PCT have an established steering group with representation from both primary and secondary care including commissioners, clinicians and managers where local management and development of respiratory services are planned.

There are Respiratory Care Teams in both East and North and West Primary Care Trusts working in Specialist Adult Services Directorate within Provider Services Directorate. There is no capacity within these teams for essential oxygen therapy assessments to be carried out.

THE PROPOSAL

This proposal is to support the appointment of two whole time equivalent Oxygen Assessment Practitioners – one for East and North Herts and one for West Hertfordshire, supported by the Respiratory Teams. See Appendix 1.

The guidelines from the British Thoracic Society recommend that 100 long term oxygen therapy patients require 1.0 WTE Specialist Nurse to provide assessments and ongoing monitoring.

It has been established that, at present, there are 220 patients on long term oxygen therapy by concentrator in East and North Hertfordshire. These patients do not have an assessment and ongoing monitoring of their needs when commenced on oxygen in the community.

Assessment of patients requiring short burst oxygen or palliative oxygen should be done in the patient's home. This should be done to ensure appropriate education for patients with COPD, avoidance of admission and facilitation of early discharge.

An example of the savings that can be made to individual patients can be seen in Appendix 2.

West Hertfordshire PCT oxygen concentrator prescriptions have risen over the past 2-3 years from 255 in 2004 to 788 in 2006. Figures for 2007 anticipate a further increase. There are 821 patients on oxygen in East and North Herts in 2006 and there are, on average, 30 new patients commenced on oxygen every month.

Summary of Oxygen Ordering – Appendix 3.

BENEFITS EXPECTED FROM THESE APPOINTMENTS

- Cost savings in excess of £290,000 for Hertfordshire.
- Meeting Department of Health guidelines.
- Improved quality of clinical care for patients on oxygen therapy.
- Appropriately prescribed oxygen therapy and monitoring of patients needs.
- Prevention of admission for patients with COPD and other respiratory conditions.
- The home oxygen service budget and prescribing costs vs actual expenditure can be assured.
- Improved education for patients and carers to manage their long term condition.
- To work with colleagues in primary care to improve the pathway for these patients.
- To facilitate appropriate audit trail of activity giving relevant factual information.

RISKS

No risks identified.

COSTS AND TIMESCALE

- Investment of £37,400K per oxygen assessment whole time equivalent post.
Total £74,800K for two posts.
- Service can commence when staff recruited to post.

APPENDIX 1



West Hertfordshire Primary Care Trust and
East and North Hertfordshire Primary Care Trust

Job Description (East & North Herts PCT)

| | |
|------------------------|---|
| TITLE | Respiratory Nurse Specialist / Oxygen assessment Practitioner |
| HOURS | Full Time/ (Job share) |
| BASE | Community |
| GRADE: | Band 7 (Subject to AfC) |
| RESPONSIBLE TO: | Service Lead |
| ACCOUNTABLE TO: | Assistant Director of Specialist Adult Services |

CAR DRIVER ESSENTIAL OR ACCESS TO A CAR (UNLESS YOU HAVE A DISABILITY AS DEFINED BY THE DISABILITY DISCRIMINATION ACT 1995)

SUMMARY OF POST

- To provide an oxygen assessment service for patients with respiratory disease registered with a GP in East & North Hertfordshire – initially within North Herts & Stevenage.
- To undertake home visits for all identified patients in order to complete up to date assessments of the therapy features provided, and where appropriate instigate changes in the service provision through liaison with relevant medical specialist prescribers.
- Work alongside GP's and Practice Nurses to develop and establish a primary care service for patients already diagnosed as having chronic obstructive pulmonary disease (COPD) and those who are potentially at risk.
- Responsible for the implementation of protocols for patients with COPD that is evidence based and up to date.
- Working closely with related professions both within the PCT and secondary care to ensure the patient has the best treatment in the most appropriate setting, integrating

with the intermediate care team, prevention of admission and early supported discharge scheme as necessary.

- Provides specialist education and training in COPD for health care professionals.
- To work with the multi disciplinary team, both in a primary and secondary care environment, ensuring all patients have access to all services and provide the best possible care for patients.
- To work under own initiative to manage workload.
- To work alongside and promote new service developments.

MAIN DUTIES AND RESPONSIBILITIES

- To make appropriate referrals to Secondary Care and other members of the Respiratory Care team as required.
- Provide specialist nursing advice and support to patients, and their families and carers. Promote empowerment.
- Evaluate the effects of medication, ensuring the safe management and support of these patients, in partnership with PCT prescribing teams.
- Advise and work with all members of the multi-disciplinary team to ensure the delivery of high standards of individualised, evidence based care for respiratory patients.
- To develop close links with the Respiratory Care Team to promote the best possible 'seamless' continuing care and support for these patients .
- To encourage involvement of the patient, and their carers, in decision making to improve the understanding of their condition and its management. Identify their needs; provide education, support and monitoring.
- To have a broad understanding of respiratory disease, its patho-physiology and signs and symptoms experienced by the patient. To be aware of its impact on the patient and on health care services.
- To provide an oxygen assessment service for patients with respiratory disease and ensure oxygen prescribing is in line with National Guidance.
- To be competent in the assessment of patients potentially benefiting from LTOT and ambulatory oxygen.
- To know when it is appropriate to refer to other members of the Respiratory team.
- To be able to analyse the results of Capillary blood gases and exercise tests and respond to provide the correct care for the patient.

- To liaise and work closely with the oxygen service provider, GP's, Respiratory Team, Patient Support Groups and other stakeholders in the service.

MANAGEMENT

- Work to agreed guidelines - both local and national.
- Adhere to standards for record keeping. Maintain accurate records of interventions and activities.
- Keep up to date with current literature and have a relevant understanding of current documentation.
- Agree objectives for this role and a training and development programme with line manager.

PROFESSIONAL DEVELOPMENT

- Keep abreast of current developments appertaining to Respiratory care.
- Maintain updated knowledge of professional skills.
- Attend clinical supervision for professional support and development.
- Attend lectures, meetings and conferences as appropriate.
- Abide by the NMC code of conduct.

OTHER DUTIES

This job description is neither exclusive nor exhaustive and the duties and responsibilities may vary from time to time in the light of changing circumstances and in consultation with the post holder.

CONFIDENTIALITY

All staff must be aware of the Data Protection Act. This means that protection of data about individuals is a requirement of the law and if any employee is found to have permitted unauthorised disclosure, the Trust and the individual may be prosecuted.

HEALTH AND SAFETY

The job holder is required to take reasonable care of his/her own health and safety and that of other people who may be affected by his/her acts of omissions at work and to ensure that statutory regulations, policies, codes or practice and department safety rules are adhered to.

BASE

The base will be identified on appointment, you may however, be required to work elsewhere in the Trust on a temporary or permanent basis.

Name:

Signature:

Date:

APPENDIX 2

Oxygen changes

Daily tariffs excluding VAT

| | |
|-------------|---|
| CC2B | Short Burst Oxygen Therapy (SBOT) £1.34 |
| CC3 | Long term oxygen therapy (LTOT) £1.53 |
| CC4 | LTOT plus standard ambulatory supply – price ranges depending on flow rate needed (for COPD patients – between £1.74 - £8.62) |
| CC5 | Standard ambulatory supply only – depends on daily use – between 32p a day - £7.20 |
| CC6 | LTOT plus lightweight ambulatory supply £18.50 |
| CC7 | Lightweight ambulatory supply only £17.00 |

4 patients recently changed from CC6 to CC4

Patient 1

Has been on CC6 tariff from £18.50 a day
changed to £1.74 (maximum) a day on 17/10/06
Daily saving = £16.76
Monthly saving = £502.80
Yearly saving = **£6,117.40**

Patient 2

Has been on tariff CC6 £18.50 a day
Changed to CC4 £2.37 (maximum) a day on 12/10/06
Daily saving £16.13
Monthly saving £483.90
Yearly saving **£5,887.45**

Patient 3

Had been on tariff CC6 £18.50 a day
Changed to CC4 £5.10 (maximum) a day on 3/10/06
Daily saving £13.40
Monthly saving £402.00
Yearly saving **£4,891.00**

Patient 4

Had been on CC6 tariff £18.50 a day
Changed to CC4 £2.27 a day on 13/11/06
Daily saving £16.23
Monthly saving £486.90
Yearly saving **£5,842.80**

TOTAL SAVINGS FOR A YEAR: £22,738.65

APPENDIX 3

Summary of Oxygen Ordering

East and North Herts PCT

Likely Annual Savings

(NB. Very Conservative Estimate)

| | |
|-----------------------------|----------------------------|
| Emergency Supply: | £ 28,000 |
| Lightweight Cylinders: | £ 64,000 |
| Short Burst Oxygen Therapy: | large but not quantifiable |
| Long Term Oxygen Therapy: | high but not quantifiable |
| Total – At Least | £ 92,000 |

When all patients being properly seen and analysed, almost certainly at least twice this much

February 2006 to March 2007

Emergency Supply:

- 36 new patients for whom this was ordered (27.47 per day!)
- 22 of these received it for over one month
- 17 of the 22 received for 3 months +
- The standard should be that patients only receive emergency oxygen supply for 3 days before being reassessed and removed from oxygen or switched to an alternative category
- If a patient is properly assessed, say within a week, potentially 17 could have been saved 90days of emergency oxygen and a further 5, 30 days.
- Potential saving £33,600 over this time period

Lightweight Cylinders:

- Total lightweight cylinders ordered in the period – 36 (29 in conjunction with long term oxygen concentrator and 7 for purely ambulatory use).
- On basis of work by Jacqui Carrett, most of these probably do not need lightweight cylinders but rather standard weight ambulatory cylinders (see attached sheet for details of the 4 patients she analysed).
- Savings identified by Jacqui Carrett for 4 patients - £22,700 per year.
- Even taking a conservative estimate that half these patients do not need to be on lightweight cylinders, savings for another 14 patients would be £77,000 for the period. It is likely a greater proportion do not need to be on lightweight.
- All patients requiring to receive ambulatory oxygen should be properly assessed to ensure that a lightweight cylinder is truly appropriate before commencing.

Short Burst Oxygen Therapy:

- 184 patients are on the list as receiving < 1.5hrs per day (31 have discontinued during this period) and 127 are on the list as receiving short burst therapy for > 1.5hrs per day, in which 37 have been discontinued during the period.
- Patients are put on short burst oxygen therapy because they are breathless and should always have confirmation that they are hypoxic but in reality such a check is rarely made. A specialist nurse to ensure that they do require oxygen as the best way of dealing with their shortness of breath should check all these patients. If they are not hypoxic at rest or on exercise, then other ways of relieving their breathlessness need to be sort either by identifying the cause or treating it, or by suitable alternative methods - the patient being reassured that shortage of oxygen is not the problem.
- The potential savings are huge but not quantifiable at present

Long Term Oxygen Therapy

- During this period, 222 patients were receiving long term oxygen therapy without ambulatory oxygen in addition, 65 of these have been discontinued in the category during the period.
- In addition, 357 patients have been receiving long term oxygen therapy with additional ambulatory oxygen of which 68 have stopped receiving oxygen during this period.
- Per day, for the first group, is £1.53 per day; the price for the second group varies between £1.74 and £8.62 per day.

- Although the LTOT category should only include those patients who have been formally assessed as requiring 16hrs+ oxygen a day, the category has come to include many people who have received cylinders of oxygen for symptomatic relief (short burst oxygen therapy) and been using them more than 2hrs a day. British Oxygen have converted many of these people to use of a concentrator for economic reasons, some of them may not require oxygen at all because very few have been properly assessed having started on short burst oxygen therapy.
- Patients who are on long term oxygen therapy who meet the strict criteria for entering this category, should be having a full reassessment every year and initially at 3 months after commencing. This has not been happening. Many people will be continuing oxygen who don't require to continue oxygen.
- The savings are unquantifiable but both potentially high.

Ambulatory Oxygen (not lightweight):

- The list contains 37 such patients, 6 of which have discontinued receiving this during the period, February 06 to March 07.
- All patients receiving ambulatory oxygen without being on concentrators should have been formally and very properly assessed using shuttle walk tests with and without oxygen.
- Potential cost is up to £7.20 a day for these patients and they need very careful monitoring and regulating.

Summary:

Savings by identifying patients on lightweight cylinders and those starting oxygen for emergency purposes and reassessing them promptly could themselves amount to £100,000 per year in this population of East & North Hertfordshire. This is without starting to consider the savings in the other categories which maybe just as large. More importantly our patients deserve an appropriate assessment by an expert nurse trained in this sphere to avoid them going onto inappropriate oxygen and ensuring that they are in the most appropriate category. Most doctors have extraordinarily small amount of knowledge, and indeed expertise, in this field. Although the respiratory consultant teams do have this expertise, they are only involved in a small proportion of those patients ordered oxygen after formal assessment for the appropriateness of long term oxygen therapy or where formal assessments for ambulatory oxygen are made. In well over 90% of orders for oxygen, the respiratory departments are not at present involved at all and do not have the capacity to take on this work without extra help.

Proposal:

The appointment of an oxygen nurse initially to cover North Herts & Stevenage area. The intention would be for the nurse to have appropriate training in the respiratory field and work with Jacqui Carrett, the present respiratory specialist nurse working in Welwyn Hatfield. The nurse would be given the names and contact numbers initially of groups of patients on lightweight cylinders to reassess, just as Jacqui Carrett has in Welwyn Hatfield. This may within a few weeks identify savings which over the ensuing year, may amount to as much as £35,000 - £40,000. She would very soon; start assessing patients newly ordered oxygen in an appropriate way to avoid inappropriate and/or unnecessary oxygen ordering. She would then slowly work through other groups as identified above where oxygen may have been ordered but the patients needs then not reassessed.

If, as is expected, the post is more than self-financing, it is suggested that we look to whether we need to appoint further specialist nurses to cover the whole PCT area reliably. This is important not only to avoid unnecessary expense, but in order to provide a satisfactory and appropriate service for these very needy patients.

March 2007 – Patients Commenced on Oxygen by Category

| Category | Code | Cost per Day per Patient | Number of Patient |
|---|--------|--------------------------|--|
| 1. Emergency | CC1 | £27.47 | 2 patients (unclear how long patients on emergency supply for) |
| 2. Short Burst, < 1.5hrs per day | CC2A | £1.16 | 10 patients |
| 3. Short Burst, > 1.5hrs per day | CC2B | £1.34 | 21 patients |
| 4. Long Term Oxygen Therapy | CC3 | £1.53 | 12 patients |
| 5. Long term oxygen therapy plus ambulatory | CC4C-T | £2.69 - £25.20 per day | 41 patients |
| 6. Ambulatory | CC5C-H | £1.62 - £25.20 per day | 3 patients |
| 7. Long term oxygen therapy plus lightweight cylinder | CC6 | £18.50 per day | 3 patients |

None of the patients are documented as having stopped the oxygen that has been started as above within the month of March 2007. We have no indication as to how many of these patients have been properly assessed as to their oxygen needs. It is almost certainly very low.

If an oxygen nurse was in place, we would hope that on receiving feedback that a patient had been started on oxygen, the nurse would arrange to visit, especially for those started on lightweight cylinders or short burst therapy. Former because of the high cost and

likelihood that they probably can manage with a standard cylinder and the second group because they tend to be the ones who are least likely to be analysed as to their true oxygen level and need. Ideally all patients should be checked.

SAVINGS FOR WEST HERTFORDSHIRE

Detailed identification of savings profile for West Hertfordshire PBC Groups ongoing. In summary, 780 patients are on Oxygen with hypothesised savings of £300K. Details to follow.