

Reviewing people with COPD

Introduction

Chronic obstructive pulmonary disease (COPD) is responsible for over 30,000 deaths, 1.4 million GP consultations, a million hospital bed days and costs the NHS over £800 million each year.¹ The socio-economic impact for both patients and their carers is considerable.² The recent Healthcare Commission Improvement Review on COPD found wide variations in care, with many patients not having access to important services and highlighted the need for personalised, structured and integrated care for people with COPD.

There is expert opinion but little evidence to guide decisions on how frequently patients with COPD should be reviewed.⁴ Since some patients will be asymptomatic while others need palliative care support, it is self-evident that a flexible approach is required. This Opinion Sheet aims to provide a practical approach, moving beyond the 'tick boxes' of the Quality Outcomes Framework (QOF).⁵

Key components of a COPD review

There are three key components:

- Assessment of severity in order to identify needs
- Reinforcement of smoking cessation advice
- Step-up of management in response to increasing need

1. Assessment of severity

Severity has many facets including breathlessness, lung function and exacerbation frequency.

The MRC dyspnoea scale

Breathlessness is a primary symptom of COPD, causing increasing disability as the disease progresses. The Medical Research Council (MRC) dyspnoea scale is a widely-used, validated

method of assessing breathlessness.⁶ It correlates with other measures of disability such as exercise tests, quality of life, and activities of daily living.⁷ It is a simple measure which can be used in a consultation to identify patients with significant disability.

FEV₁ recordings

By contrast, lung function does not correlate well with dyspnoea, functional status, or quality of life,⁷ and may therefore under- or over-estimate the impact of the disease.⁴ Serial FEV₁ recordings will, however, detect patients with rapidly progressing disease (a loss of 500ml or more over five years) who may need specialist referral.

Other indicators of control

The clinical record will indicate the frequency of exacerbations requiring antibiotics and oral steroid courses, providing further evidence of the impact of the disease.

Further assessment as the disease increases in severity

Pulse oximetry should be widely available to ensure all patients eligible for long-term oxygen therapy (LTOT) are identified and referred for assessment.⁴ Uncorrected, chronic hypoxia with subsequent cor pulmonale carries a poor prognosis with a 5-year survival less than 50%. Screening is appropriate for patients with moderate/severe COPD, peripheral oedema or polycythaemia. Pulse oximeters are relatively inexpensive and

simple to use. To obtain a baseline reading, patients should rest for several minutes after any exertion (such as walking down the corridor to a consulting room). Oximeters measure the colour of pulsating blood, so anything which alters the red colour (such as nail varnish) or reduces pulsation (such as cold peripheries) may affect the reading. Persistent readings <92% suggest the need for referral for full assessment. The Read code for oxygen saturation is #8A44.

Body mass index (BMI): Difficulty eating because of breathlessness combined with the systemic effects of COPD often result in weight loss. Low BMI is associated with a poor prognosis, and patients with a BMI <20 may be referred for dietary advice.⁴

Detecting depression: Depression and anxiety are relatively common in patients with COPD, particularly in those who are hypoxic, severely dyspnoeic, with hospital admissions or socially isolated⁴. Consider screening for depression during COPD reviews.

Social impact: Enquire regularly about the patient's ability to undertake activities of daily living and how they (and their carer) are coping with day-to-day life.⁴ Consider referral for advice on the benefits to which they may be entitled.

MRC Dyspnoea Score	
Grade	Description
1	Not troubled by breathlessness except on strenuous exercise
2	Short of breath when hurrying or walking up a slight hill
3	Walks slower than contemporaries on level ground because of breathlessness, or has to stop for breath when walking at own pace
4	Stops for breath after walking about 100 m or after a few minutes on level ground
5	Too breathless to leave the house, or breathless when dressing or undressing
Data collection	
Read codes for recording the MRC dyspnoea score are Grade 1: #173H, Grade 2: #173I, Grade 3: #173J, Grade 4: #173K and Grade 5: #173L	

2. Reinforcement of smoking cessation advice

Stopping smoking slows the rate of decline in FEV₁, reduces the rate of progression of symptoms, and improves survival.⁴

All patients with COPD should have their smoking status recorded and be offered cessation advice.⁴ Brief advice in primary care is effective, but the use of pharmacotherapy combined with an appropriate support programme will optimise quit rates.⁸ Practical advice on supporting smoking cessation for primary care clinicians is available on http://www.theipcrj.org/smoking/nat_gd.php

3. Step up management

Functional deterioration, rather than lung function, dictates the need not only to step up pharmacological treatment but also to offer appropriate social and nursing support for both the patient and his carer.⁴ The GPIAG booklet "The diagnosis and management of COPD in primary care" available from http://www.gpiag.org/education/resources/copd_guidelinebooklet_final.pdf includes a patient-centred approach to stepping up management.

Pharmacological treatment

Short- and long-acting beta₂ agonists and anticholinergics can relieve the increasing shortness of breath and improve exercise tolerance and quality of life.⁴ Inhaled steroids and long acting bronchodilators reduce exacerbation rates in patients with moderate COPD who have exacerbations.⁴ Mucolytics have a role in

those with chronic productive cough.⁴

Inhaler technique

Poor inhaler technique reduces the effectiveness of inhaled treatment.⁴ Three-quarters of patients make mistakes when using a pressurised metered-dose inhaler, while just over a half can use dry powder devices or breath-actuated metered dose inhalers without errors.⁹

Pulmonary rehabilitation

Rehabilitation relieves dyspnoea and fatigue, improves emotional function and enhances patients' sense of control over their condition.¹⁰ Exercise should be encouraged in all patients with COPD, and patients with an MRC Dyspnoea score of 3 or more should be referred for pulmonary rehabilitation.⁴

Self management

Early identification of, and intervention in, exacerbations has the potential to reduce disease progression, hospital admissions and improve quality of life.¹¹ Patients at risk of exacerbations should be given self-management advice and emergency courses of antibiotics and steroids to enable them to respond promptly to the symptoms of an exacerbation.⁴

Palliative care

There is currently evidence of considerable unmet clinical and social need for people with end-stage COPD.⁴ For primary care clinicians a major problem is the uncertain prognosis and the difficulty of knowing when and how to broach the topic of end-of-life care.¹²

Some practical advice is available on the GPIAG Opinion sheet 'Palliative care for people with COPD' see <http://www.gpiag.org/opinions>.

Organisation of COPD review services

National guidelines recommend that people with mild and moderate

COPD should have annual reviews, while those with more severe disease should be reviewed more frequently. Whilst many of the measurements involved in a COPD review can be undertaken by a trained healthcare assistant, it is important that the patient's needs are formally reviewed by a professional with appropriate training and experience. As the disease progresses, involvement of a multidisciplinary team will become increasingly important.⁴

QOF and COPD reviews

The prevalence of COPD in the UK reported to QOF is less than 2%. The relatively high exception reporting rate (median 8.2%) probably reflects the proportion of severely disabled, often housebound, patients with severe disease.¹³

The indicators relating to COPD reviews have not been changed in the 2008/9 update and continue to emphasise annual measurement of FEV₁ and the assessment of inhaler technique.⁵ ■

References

1. Chief Medical Officer. It takes your breath away. The impact of chronic obstructive pulmonary disease. Annual report 2004
2. The Respiratory Alliance. Bridging the Gap 2003 <http://www.gpiag.org/news/bridging.php>
3. Commission for Healthcare Audit and Inspection. Clearing the air. A national study of chronic obstructive pulmonary disease. Commission for Healthcare Audit and Inspection. 2006
4. National Institute for Health and Clinical Excellence. National clinical guideline management of chronic obstructive pulmonary disease in adults in primary and secondary care. *Thorax* 2004; 59 (Suppl. 1): S1-232. Available at www.nice.org.uk
5. NHS Confederation, British Medical Association Quality and Outcomes Framework guidance for GMS contract 2008/09 Delivering investment in general practice. London, 2008
6. Fletcher CM, Peto R. The Significance of Respiratory Symptoms and the Diagnosis of Chronic Bronchitis in a Working Population. *BMJ* 1959;2:257-66
7. Bestall JC, Paul EA, Garrod RA *et al.* Useful of the Medical Council (MRC) dyspnoea scale as a measure of disability in patients with chronic obstructive pulmonary disease. *Thorax* 1999; 54: 581-6
8. West R, McNeill A, Raw M. Smoking cessation guidelines for health professionals: an update. *Thorax* 2000;55:987-99. http://www.brit-thoracic.org.uk/bts_guidelines_smokecess_html
9. Brocklebank D, Wright J, Cates C, *et al.* Comparison of the effectiveness of inhaler devices in asthma and chronic obstructive airways disease: a systematic review of the literature. *Health Technol Assess* 2001;5:1-149
10. Lacasse Y, Goldstein R, Lasserion TJ, Martin S. *et al.* Pulmonary rehabilitation for chronic obstructive pulmonary disease. Cochrane Database of Systematic Reviews 2006, Issue 4. Art. No.: CD003793. DOI: 10.1002/14651858.CD003793.pub2
11. Wilkinson T, Donaldson GC, Hurst JR, *et al.* Early Therapy Improves Outcomes of Exacerbations of Chronic Obstructive Pulmonary Disease. *Am J Respir Crit Care Med* 2004; 169: 1298-1303
12. Murray SA, Boyd K, Sheikh A. Palliative care in chronic illness. We need to move from prognostic paralysis to active total care. *BMJ* 2005; 330: 611-12
13. Doran T, Fullwood C, Gravelle H, *et al.* Pay-for-Performance Programs in Family Practices in the United Kingdom. *New Eng J Med.* 2006; 355: 375-84

Table 1. Checklist of indicators for specific management

Marker of severity	Action
Smoking status	Offer cessation support
MRC dyspnoea scale > 3	Offer pulmonary rehabilitation
FEV ₁ <50% plus two or more exacerbations in a year	Commence inhaled steroids and long-acting beta ₂ -agonists
Oxygen saturation <92%	Refer for oxygen assessment
BMI <20 or >30	Refer for dietary advice
Depression	Consider drug or psychological therapy

Date of Preparation: June 2008

Author: Dr Hilary Pinnock Editor: Dr Paul Stephenson, GPIAG Editor-in-Chief: Dr Mark Levy

This series of opinion sheets has been sponsored by educational grants from AstraZeneca UK Limited, Boehringer-Ingelheim Ltd/Pfizer Ltd, Schering Plough Ltd and TEVA UK Ltd. The sponsors may have reviewed this opinion sheet to advise on matters of factual accuracy related to their product licence but they have not contributed to, nor have they influenced, the contents of this opinion sheet. The views expressed in this publication are not necessarily those of either the sponsors or the General Practice Airways Group (GPIAG).

©GPIAG. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, without the prior permission of the GPIAG. The GPIAG is a registered charity (Charity Number: 1098117) and a company limited by guarantee (Company number 4298947). Registered Offices: 2 Wellington Place, Leeds, LS1 4AP

Address for Correspondence: GPIAG, Smithy House, Waterbeck, Lockerbie, DG11 3EY, UK

Telephone: +44 (0)1461 600639 Facsimile: +44 (0)1361 331811 Email: info@gpiag.org Websites: <http://www.gpiag.org>, <http://www.theipcrj.org>