Exploring the outcomes and implications of the latest national COPD audit

Areas for improvement highlighted in the 2008 COPD audit are analysed and their implications for nurses, healthcare providers and patients are examined.

INTRODUCTION

The third national COPD audit was produced by a partnership between the Royal College of Physicians, the British Thoracic Society and the British Lung Foundation and was funded by The Health Foundation (RCP et al, 2008). It showed that care for patients with COPD has improved since the audit in 2003 (RCP and BTS, 2003). Services have been expanded and there is evidence that best practice guidelines (NICE, 2004) are being implemented.

The audit also highlighted that guidelines were not being followed in some areas, for example using non-invasive ventilation (NIV) during an acute exacerbation of COPD. There are also care inequalities during the terminal phase and limited information for patients about COPD services, including end of life care.

THE NATIONAL COPD AUDIT

All acute trusts in the UK were invited to participate in the audit, which included:

- An audit of resources and organisation of care in acute units;
- A clinical audit of up to 60 cases admitted to hospital with an exacerbation of COPD during March-May 2008, including 90 day clinical outcomes.

The resources and organisational audit collected general data with specific quality indicators for NIV, pulmonary rehabilitation, early discharge and oxygen services. Data on palliative care was also collected.

Thirty patients from each organisation were asked to complete an anonymous survey.

Hospital teams also sent a questionnaire to GPs of the first 30 audited patients admitted with a COPD exacerbation.

Primary care organisations (PCOs) were invited to participate in the audit and surveyed on the resources and organisation of care for people with COPD in their area. The audit’s aims are outlined in Box 1.

Some 98% of acute trusts and 73% of PCOs participated. Data included over 9,700 cases of COPD exacerbations, 2,800 patients and 2,700 GPs. Five reports have been produced (Box 2).

IMPLICATIONS FOR SERVICES

The results of the 2008 audit identified an overall improvement in COPD services compared with the previous audit in 2003 (RCP and BTS, 2003) (Table 1).

Acute units and PCOs were asked to identify the services available or being developed (Table 2, p16). The results suggest COPD services are high on PCOs’ long term conditions agenda.

Non-invasive ventilation

NIV is an effective method of treating acidotic respiratory failure, and is recommended as the first choice of treatment for persistent
Ambulatory oxygen were poor (56% and 41% receiving long term oxygen therapy and recommended by the BTS (2006) for patients carrying out before prescribing long term oxygen and recommend that an assessment should be guidance on when this should be prescribed.

Oxygen guidelines give clear in patients with COPD (Medical Research Long term oxygen therapy reduces mortality and hypercapnic respiratory failure associated with COPD exacerbations (NICE, 2004). It can decrease early mortality and the need for intubation (Ram et al, 2003) and results in fewer complications than usual care (Ram et al, 2003). It is also associated with shorter hospital stays (Peter et al, 2002).

This ventilation method has often been provided in intensive care or high dependency areas but it can be delivered in general wards (NICE, 2004; BTS, 2002; Plant et al, 2003).

The audit found that 20% of the clinical cases presented in acidic respiratory failure, with a further 7% developing it while in hospital. This suggests that over one-quarter of admissions with a COPD exacerbation need ventilatory support but only 12% receive it.

The results highlight that only 15% of the decisions not to escalate treatment to ventilation were taken by a respiratory consultant and in 11% of cases the decisions were taken by very junior medical staff.

Ongoing training for all staff caring for patients receiving NIV was poor. Some 48% of organisations did not meet the audit standards in full and fewer than half (46%) had locally adapted written protocols for managing patients with COPD who needed NIV.

Oxygen services
Long term oxygen therapy reduces mortality in patients with COPD (Medical Research Council, 1981). Oxygen guidelines give clear guidance on when this should be prescribed and recommend that an assessment should be carried out before prescribing long term oxygen therapy, including ambulatory oxygen (BTS, 2006; RCP, 1999).

The audit found that follow up arrangements by the BTS (2006) for patients receiving long term oxygen therapy and ambulatory oxygen were poor (56% and 41% respectively) in acute units. Only 58% of acute units provide written information for patients receiving home oxygen.

Pulmonary rehabilitation
Pulmonary rehabilitation is a multidisciplinary programme of care for patients with chronic respiratory impairment that is tailored to optimise individuals’ physical and social performance and autonomy (NICE, 2004).

NICE (2004) recommended that pulmonary rehabilitation should be offered to patients who consider themselves functionally disabled by COPD. Rehabilitation can lead to statistically significant and health related improvements in quality of life and exercise capacity, and reduce dyspnoea (Lacasse et al, 2006; Ries et al, 1997).

The national COPD audit set 11 quality standards, with many units meeting them all in full. Only 49% of units undertake an annual audit of the service, including numbers of patients attending and patient satisfaction. Patients need to continue to exercise to benefit from pulmonary rehabilitation, but only 30% of units provide a programme to facilitate ongoing exercise run by trained staff in the community.

Early discharge schemes
Evidence suggests there is no difference in the length of an episode of care between patients in early discharge schemes versus staying in hospital (Ojoo et al, 2002; Davies et al, 2000). Readmission and mortality rates are similar (Cotton et al, 2000). Early discharge schemes can therefore be seen as a safe way of caring for selected patients with COPD (Ram et al, 2004).

In the UK, there has been an increase in admission avoidance schemes, where patients are assessed by a multidisciplinary team to determine if admission is necessary. There is limited evidence to support this practice.

The number of units providing a high quality early discharge scheme rose from 44% in 2003 to 59% in 2008. Forty-one per cent of units are not able to offer home care. The majority of schemes are run by respiratory nurse specialists (85%). Some units (36%) with an early discharge scheme offer admission prevention and 56% offer rapid discharge within 48 hours. However, only 24% offer a seven day service with the majority providing the service for five days a week.

Again, written information for patients and carers is poor, with only 39% of units meeting the full quality standard for this.

Palliative care
COPD has a long disease trajectory and patients experience symptoms that are often difficult to control. It is difficult to predict when an individual may be reaching the terminal phase.

End of life discussions are therefore often avoided and only occur during an acute event. Only 13% of units provide information about end of life care when patients are stable. This suggests that sensitive discussions are addressed when patients are acutely unwell or not at all.

Palliative care services are ideally placed to help plan end of life care. Those with COPD are likely to have less access to palliative care than patients with lung cancer, despite having similar symptoms and death rates (Varkey, 2006; Gore et al, 2000). The audit found fewer than half of acute units (49%) have a formal referral pathway to palliative care services.

Patients with COPD should benefit from improved access to palliative care services recommended in the end of life strategy (Department of Health, 2008). The audit found 66% of acute units planned to develop or improve palliative care services.

<table>
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<th>TABLE 1. NATIONAL COPD AUDIT 2008 COMPARED WITH 2003 RESULTS</th>
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<tr>
<td>Service</td>
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<td>Early discharge schemes</td>
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<tr>
<td>Pulmonary rehabilitation</td>
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<td>Non-invasive ventilation</td>
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This Article Has Been Double-Blind Peer-Reviewed

Nursing Times 29 September 2009 Vol 105 No 38 www.nursingtimes.net
Managing acute exacerbations
An exacerbation is a major event in the natural history of COPD and can worsen prognosis.

The audit results captured events leading to an exacerbation and treatment patients received following admission to hospital. Before admission, 90% of patients were known to have COPD. Data from GP surveys suggests they had frequent exacerbations and regularly used primary care in the 12 months before admission. Some 31% attended the GP surgery three or more times in the month before admission and 74% attended once.

Sixty-seven per cent of hospitals have local guidelines for assessment, 75% for treatment, but only 45% for follow up after discharge.

Results from the previous audit (RCP and BTS, 2003) demonstrated high morbidity and mortality associated with an exacerbation requiring admission. Inpatient mortality was 7.5%, 31% of patients were readmitted and 15.5% died within three months. There has been little change since 2003 in inpatient mortality (7.7%), but overall mortality rates at three months have reduced to 13.9%.

It is clear inpatient care has improved, with an increase in specialty respiratory wards. A respiratory specialist healthcare worker now sees 78% of patients during admission.

Patient experiences
The patient survey, based on those admitted or recently discharged with COPD exacerbations, found 83% reported frequent exacerbations, with 68% experiencing a respiratory infection or flu-like symptoms in the month before admission. Some 57% noticed a change in phlegm colour/volume before admission.

This suggests there is a lead-in phase to an exacerbation when early intervention, such as self management, may help to reduce its impact and shorten its length. However, only 23% of patients had a written plan for self management and 24% had a supply of antibiotics and corticosteroids to administer at home.

Over half (57%) said they were able to seek advice over the phone from their GP, respiratory nurse or hospital doctor. Hospital admissions are common, with 60% reporting they had been admitted in the previous year and 66% feeling they would still have needed to be admitted even if they had more help at home.

COPD management is provided by hospital clinics and patients’ GP surgeries and appears to be relatively poor as patients are not receiving regular check-ups. Only 55% of patients have regular check-ups in primary care and 42% in acute care.

Conclusion
Services for patients with COPD need to span both primary and acute care, and integrated care is needed to overcome some of the discrepancies in services provided in acute units and PCOs (Table 2).

References


Table 2. Acute Unit and Primary Care Organisation Availability/Development of COPD Services

<table>
<thead>
<tr>
<th>Service available or in development</th>
<th>Acute unit response</th>
<th>PCO response</th>
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<tbody>
<tr>
<td>Pulmonary rehabilitation</td>
<td>90%</td>
<td>77%</td>
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<tr>
<td>Early discharge scheme</td>
<td>56%</td>
<td>90%</td>
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<tr>
<td>Admission avoidance</td>
<td>38% (within early discharge scheme)</td>
<td>93%</td>
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<td>Long term oxygen assessment</td>
<td>76%</td>
<td>97%</td>
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<td>Formal referral pathway to palliative care</td>
<td>66%</td>
<td>78%</td>
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The national clinical strategy is likely to recommend managed clinical networks are introduced to encourage joined up planning and provision of COPD services, ensuring equitable and cost effective treatment options delivered by a competent team.

Acknowledgement
We would like to thank the members of the steering and implementation groups, participants and patients.