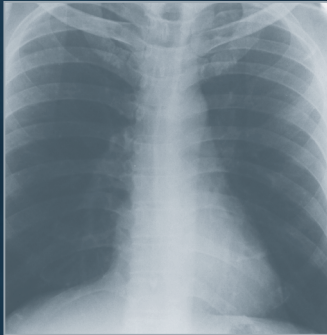


National COPD Audit Programme



COPD: Who cares matters

National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Clinical audit of COPD exacerbations admitted to acute units in England and Wales 2014

**National clinical audit
Executive summary
February 2015**

Prepared by:



**Royal College
of Physicians**



**British
Thoracic
Society**

In partnership with:



Royal College of
General Practitioners



Commissioned by:



Working in wider partnership with:



The Royal College of Physicians

The Royal College of Physicians (RCP) plays a leading role in the delivery of high-quality patient care by setting standards of medical practice and promoting clinical excellence. The RCP provides physicians in over 30 medical specialties with education, training and support throughout their careers. As an independent charity representing 30,000 fellows and members worldwide, the RCP advises and works with government, patients, allied healthcare professionals and the public to improve health and healthcare.

The Clinical Effectiveness and Evaluation Unit (CEEU) of the RCP runs projects that aim to improve healthcare in line with the best evidence for clinical practice: national comparative clinical audits, the measurement of clinical and patient outcomes, clinical change management and guideline development. All of the RCP's work is carried out in collaboration with relevant specialist societies, patient groups and NHS bodies. The CEEU is self-funding, securing commissions and grants from various organisations including the Department of Health and charities such as the Health Foundation.

The British Thoracic Society

The British Thoracic Society (BTS) was formed in 1982 by the amalgamation of the British Thoracic and Tuberculosis Association and the Thoracic Society, but their roots go back as far as the 1920s. BTS is a registered charity and a company limited by guarantee. The Society's statutory objectives are: 'the relief of sickness and the preservation and protection of public health by promoting the best standards of care for patients with respiratory and associated disorders, advancing knowledge about their causes, prevention and treatment and promoting the prevention of respiratory disorders'. Members include doctors, nurses, respiratory physiotherapists, scientists and other professionals with an interest in respiratory disease. In September 2014, BTS had 2950 members. All members join because they share an interest in BTS's main charitable objective, which is to improve the care of people with respiratory disorders.

Healthcare Quality Improvement Partnership (HQIP)

The National COPD Audit Programme is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit Programme (NCA). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact that clinical audit has on healthcare quality in England and Wales. HQIP holds the contract to manage and develop the NCA Programme, comprising more than 30 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual audits, also funded by the Health Department of the Scottish Government, DHSSPS Northern Ireland and the Channel Islands.

Citation for this document: Stone RA, Holzhauser-Barrie J, Lowe D, Searle L, Skipper E, Welham S, Roberts CM. COPD: Who cares matters. National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Clinical audit of COPD exacerbations admitted to acute units in England and Wales 2014. Executive summary. London: RCP, February 2015.

Copyright

All rights reserved. No part of this publication may be reproduced in any form (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this publication) without the written permission of the copyright owner. Applications for the copyright owner's written permission to reproduce any part of this publication should be addressed to the publisher.

Copyright © Healthcare Quality Improvement Partnership 2015

ISBN 978-1-86016-560-3

eISBN 978-1-86016-561-0

Royal College of Physicians

Clinical Effectiveness and Evaluation Unit

11 St Andrews Place

Regent's Park

London NW1 4LE

www.rcplondon.ac.uk/COPD #COPDaudit #COPDwhocares? #COPDwhocaresmatters

Registered charity no 210508

Foreword

This report is the second in the current round of the 2014 secondary care component of the national chronic obstructive pulmonary disease (COPD) audit, and it covers the description of clinical care in the acute hospital setting. The audit builds on the experiences of the three previous audits since 1997 and it reflects not only the performance of the hospital services but also the generally improving long-term care for patients with COPD. The authors are to be congratulated on the acquisition of an internationally unique and comprehensive description of COPD care that can be used to further improve both the hospital and community care of patients.

The number of acute medical admissions to hospital in the UK continues to rise inexorably, in spite of efforts to improve community care. However, this report outlines some pleasing improvements in the process of care, with significant reductions in length of stay and mortality. Any country in the world would be proud of these figures, but the report still finds that there is room for improvement. There is still noticeable variation in care, and the report suggests that those patients who receive attention from respiratory specialists receive better evidence-based care. A lack of specialist input was particularly noticeable at weekends. While the hospital service cannot take responsibility for failures in diagnosis or management prior to admission, it remains disappointing that there are still some basic deficiencies in acute care practice around assessment, management of respiratory failure and preparation for discharge.

This report differs from its predecessors by beginning to appreciate that it is not entirely possible to divorce the hospital episode from what is happening in the community. It also acknowledges that the shape of hospital care is changing. We cannot assume that the repeated audits over the last 20 years have examined exactly the same interaction or the same type of patient. Community care and self-management behaviour have improved markedly over this period but may paradoxically have resulted in a lower threshold for admission to hospital, which may have some bearing on the reduction of length of stay and mortality. Also, those patients who have successfully adopted self-management behaviours as a result of pulmonary rehabilitation may be able to leave hospital sooner than their predecessors. The later reports in this audit cycle on primary care and pulmonary rehabilitation may shed some light on this area. Hospitals are changing as well, with much emergency care being delivered by generic acute physicians. It is likely that many patients with short attendances will never be admitted to a ward that is supervised by a respiratory consultant. However, this should not mean that they are denied ongoing contact with the respiratory team. A hospital attendance signals a crisis in the long-term care of the patient but it should not be considered as an isolated incident, and communication with the community respiratory teams on discharge is vital if the hospital attendance is to add value to the overall care of the patient.

The authors of this report are to be congratulated for their prescience in understanding that a hospital admission is but a small, albeit significant, part of many patients' experience during the course of their illness, in which COPD is almost always compounded by other chronic conditions. This latest excellent report builds on the experience of the past and identifies continued deficiencies in our management of patients who require hospital admission. It shows that patients do get better care if they have specialist involvement, but in the future this cannot be confined simply to a hospital admission. New models of care must include specialist advice in the local commissioning arrangements that cover the whole pathway of care.



Professor Mike Morgan
National Clinical Director for Respiratory Services in England

Executive summary

Context: there has been a 22% rise in median emergency medical admissions since 2008, with COPD admissions having risen by 13%.

This report presents results from the second element of the national COPD secondary care audit, a clinical audit of COPD exacerbations admitted to acute NHS units in England and Wales during February to April 2014. The audit assessed performance against key quality standards, clinical guidelines and accepted best practice for COPD management ([1,2,3,4,5,6,7](#)). The current report links to the recently published account of COPD resources and organisation in England and Wales (*COPD: Who cares?* ([8](#))), whilst outcomes from the patient group, which we believe to be the largest cohort of audited COPD exacerbations hitherto collected, will be reported in 2015.

The findings from the clinical audit align closely to those reported in the audit of COPD service organisation and resource ([8](#)), which highlighted some improvements in the organisation of admissions processes, non-invasive ventilation (NIV) and the availability of early/supported discharge services since 2008. There were, however, major concerns around the variation in care, availability of specialist respiratory services/weekend care and the coordination of care at discharge and beyond.

Data reported here demonstrate some important improvements in the management of COPD exacerbation since the last audit in 2008, for which clinical teams are to be commended. Firstly, it appears that fewer patients are being treated inappropriately with high-flow oxygen at the time of admission. Secondly, the management of acute respiratory failure has improved, with the overwhelming majority of patients receiving prompt assessment, appropriate measurement of blood gases (albeit with some unacceptable delays between the first and second samples) and management of respiratory acidosis with NIV. Thirdly, there has been a significant increase in the number of patients referred into early/supported discharge services and a concomitant reduction in the length of stay since 2008.

There are particular concerns, raised also by the audit of organisation and resource ([8](#)), around the marked variation in care offered to COPD patients across England and Wales, the access to specialist respiratory care, the availability of care at weekends and the observation that many patients are not cared for on respiratory wards. There was poor recording of important diagnostic information, alongside suboptimal delivery of, and referral into, key evidence-based services such as smoking cessation and pulmonary rehabilitation. Only half of the patients were under the care of a respiratory consultant at the time of discharge, although it was notable that those patients who were reviewed by, or under the care of, respiratory specialist teams received much better evidence-based COPD care.

Patients are not supported well at weekends, and this is associated with a major reduction in the rate of hospital discharge on Saturdays and Sundays (Mondays having the highest rate of COPD admissions). While a connection between the longer times taken to review patients on Mondays is unproven, we are sufficiently concerned to mention that the highest in-hospital mortality within the patient group is observed on a Tuesday following admission on a Monday.

The picture painted by the data is very much one of high front-end efficiency, with short hospital stays organised around a 5-day working week. There appears to be less emphasis on whole-case management and the important application of evidence-based care during the hospital episode, factors that have ramifications for patient experience and longer-term outcomes. Many patients do not receive specialist care from the multiprofessional respiratory team.

The data suggest that, having bolstered front-end safety and efficiency, it is now necessary to focus urgently on wider issues in order to improve compliance with standards: the respiratory bed base should increase to reflect the COPD admission burden, so maximising the number of patients who fall under the care of respiratory specialists; respiratory specialists (and this means not just doctors but the wider multidisciplinary team) should review exacerbating patients sooner, including on weekends; weekend care should improve and weekend working should extend to early/supported discharge teams, as this will also have a positive impact on Saturday/Sunday discharges; and acute units should continue to review their protocols for recording key clinical information, prescribing oxygen, referring into pulmonary rehabilitation and early/supported discharge services. The adoption of COPD admission and discharge care bundles may help to drive this change.

Our recommendations parallel those within the audit of COPD service organisation and resource (8). They are intended to improve the observed deficiencies in care and performance against key quality standards/guidelines. Some will be relatively easy to achieve. Others will be more challenging, and acute units will have to consider them not only within their own organisations but also in collaboration with primary care colleagues and maybe other acute units that are geographically close. There can be little doubt that their adoption will result in improved organisational efficiency, better patient experience and better outcomes.

While reorganisation and investment will be necessary to deliver these improvements, there has hitherto been no 'go-to' resource for providers and commissioners wishing to seek advice about improving their services and to share or search for experience, learning and innovation that will help to solve some of these challenges. The launch of '[Respiratory Futures](#)' (9) is therefore welcomed as a potential platform within which to host this resource, and we commend its further development.

Summary of recommendations

We suggest that these recommendations are discussed carefully at departmental/trust board/clinical commissioning group (CCG)/health board level, and within local respiratory programme groups.

For commissioners

1. Oxygen prescribing should be linked to local/national care quality initiatives (CQUINs).
2. The provision of hospital smoking cessation services should be linked to local/national CQUINs.
3. Hospitals, CCGs and health boards should review the availability of their early/supported discharge services for COPD patients; these schemes should extend their service to cover weekends.
4. Hospitals, CCGs and health boards should clarify and formalise their pathways to improve referral to early/supported discharge teams and community pulmonary rehabilitation programmes; respiratory specialists should take a lead in this process.

For providers

1. To improve access to specialist care (performance against [NICE QS 10, 11](#)):
 - Patients admitted with COPD exacerbation should receive a respiratory specialist opinion within 24 hours, 7 days a week.

- Hospitals should appraise carefully their staff rosters at weekends and on Mondays, the former having the lowest rate of discharges and the latter having the highest rate of admission and the longest times to clinical review.
 - Patients with COPD exacerbation who need onward hospital care after their stay on the medical admissions unit should be managed in a respiratory ward. Hospitals should reappraise their complement of respiratory beds to ensure that it reflects their size and respiratory/COPD admission burden.
2. To improve the recording of key information and hence onward care (performance against [NICE QS 1, 8, 10, 11](#) and [BTS emergency oxygen/BTS NIV guideline](#)), the following should be noted at admission, ideally as part of an admission care bundle:
- confirmation that the patient has a COPD exacerbation on the basis of symptoms and spirometric evidence
 - the presence or absence of consolidation on the chest X-ray (treatment for pneumonia should commence if there is consolidation)
 - the estimated Medical Research Council (MRC) breathlessness score in the weeks prior to the current exacerbation
 - the initial oxygen saturation, alongside confirmation that oxygen has been prescribed and titrated to a target saturation
 - the blood gas analyses
 - components of the DECAF (**d**yspnoea, **e**osinopenia, **c**onsolidation, **a**trial fibrillation) score ([10](#)) – this could usefully become an integral part of the admission documentation for patients with COPD exacerbation, just as the CURB 65 score is for pneumonia.
3. To improve the management of respiratory failure – oxygen (performance against [NICE QS 8, 9, 10, 11](#) and [BTS emergency oxygen guideline](#)):
- Units should ensure that they have a mandatory, rolling training programme in place to support better prescribing and titration of emergency oxygen therapy. The training programme should extend to all medical and nursing staff, and should be a core topic within junior doctors' induction programmes.
4. To improve the management of respiratory failure – NIV (performance against [NICE QS 10, 11](#) and [BTS NIV guideline](#)):
- Units should ensure that a written proforma is deployed for patients receiving NIV. The proforma should provide fields in which to record the time and value of each blood gas, the time of NIV application and NIV pressures. It should be freely available wherever NIV is used. The NIV proforma should be demonstrated as part of junior doctors' induction programmes.
 - Patients requiring NIV should have access to level 2 care; there should be at least one staffed level 2 bed on the respiratory ward, dependent upon demand and the size of the hospital, in which NIV can be administered according to accepted clinical guidelines.
5. To improve the recording and documentation of spirometry (performance against [NICE QS 1, 2, 3, 10](#)):
- All hospitals/units should make spirometry results, normally available on lung function laboratory software, accessible from every computer desktop via their IT department's browser system/intranet.

- All admission units and respiratory wards should have a basic portable spirometer as part of their standard equipment.
 - All hospitals/units should introduce mandatory training for key health professionals to ensure that the measurement/recording of spirometry is understood and undertaken, when appropriate, as part of routine practice.
6. To improve the administration of smoking cessation advice (performance against [NICE QS 5](#)):
- All hospitals/units should have a fully funded and resourced smoking cessation programme delivered by dedicated smoking cessation practitioners.
7. To improve the coordination of care at discharge, and hence onward care, hospitals/units should ensure that their discharge information contains the following information, ideally as part of a discharge care bundle (performance against [NICE QS 1, 5, 6, 12](#)):
- MRC breathlessness score in the period prior to admission
 - latest spirometry (date and value)
 - body mass index (BMI)
 - evidence of any decision made around escalation of care, and who has been involved in that decision
 - evidence that smoking cessation support has been given to current smokers
 - evidence that a pulmonary rehabilitation referral has been made, or is considered inappropriate at the present time
 - identification of those with type 2 respiratory failure who are at risk of oxygen toxicity (and confirmation that an oxygen alert card has been issued)
 - clear evidence that follow-up has been arranged (hospital team, community team, GP).

Quality improvement

- Future audit should be undertaken by continuous, prospective collection (and regular reporting) of selected clinical indicators drawn from the current recommendations, with intermittent spot audit of COPD service resource and organisation.
- A nationally-recognised repository for COPD service improvement should be developed, aligned to the recommendations made in the national COPD audit, and made available as a resource for clinicians and managers across all health sectors. The recent launch of [‘Respiratory Futures’](#) offers an ideal platform for this resource.

References

1. National Institute for Health and Clinical Excellence. *Chronic obstructive pulmonary disease quality standard (QS10)*. London: NICE, 2011. www.nice.org.uk/Guidance/QS10
2. Department of Health, Medical Directorate, Respiratory Team. *An outcomes strategy for chronic obstructive pulmonary disease (COPD) and asthma in England*. London: DH, 2011. www.gov.uk/government/publications/an-outcomes-strategy-for-people-with-chronic-obstructive-pulmonary-disease-copd-and-asthma-in-england
3. NHS England. *NHS Outcomes Framework – 5 domains resources* [accessed January 2015]. www.england.nhs.uk/resources/resources-for-ccgs/out-frwrk/
4. British Thoracic Society. *Guideline for emergency oxygen use in adult patients*. London: BTS, 2008. www.brit-thoracic.org.uk/guidelines-and-quality-standards/emergency-oxygen-use-in-adult-patients-guideline/
5. British Thoracic Society. *The use of non-invasive ventilation in the management of patients with chronic obstructive pulmonary disease admitted to hospital with acute type II respiratory failure*. London: BTS, 2008. www.brit-thoracic.org.uk/document-library/clinical-information/niv/niv-guidelines/the-use-of-non-invasive-ventilation-in-the-management-of-patients-with-copd-admitted-to-hospital-with-acute-type-ii-respiratory-failure/
6. British Thoracic Society. *BTS guideline on pulmonary rehabilitation in adults*. London: BTS, 2013. www.brit-thoracic.org.uk/guidelines-and-quality-standards/pulmonary-rehabilitation-guideline/
7. National Institute for Health and Clinical Excellence. *Chronic obstructive pulmonary disease: Management of chronic obstructive pulmonary disease in adults in primary and secondary care (partial update) (CG101)*. London: NICE, 2010. www.nice.org.uk/guidance/CG101
8. Stone RA, Holzhauer-Barrie J, Lowe D, Searle L, Skipper E, Welham S, Roberts CM. *COPD: Who cares? National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Resources and organisation of care in acute NHS units in England and Wales 2014. National organisational audit report*. London: RCP, November 2014. www.rcplondon.ac.uk/sites/default/files/national_copd_secondary_care_organisational_audit_2014_national_report_web.pdf
9. Respiratory Futures. Working together for better lung health. 2014. www.respiratoryfutures.org.uk/ [accessed January 2015]
10. Steer J, Gibson J, Bourke SC. The DECAF score: predicting hospital mortality in exacerbations of chronic obstructive pulmonary disease. *Thorax* 2012;67:970–6. <http://thorax.bmj.com/content/early/2012/08/14/thoraxjnl-2012-202103.abstract>



For further information on the overall audit programme or any of the workstreams, please see our website or contact the national COPD team directly:

National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme
Clinical Effectiveness and Evaluation Unit
Royal College of Physicians,
11 St Andrews Place,
Regent's Park, London NW1 4LE

Tel: +44 (020) 3075 1502

Email: copd@rcplondon.ac.uk

www.rcplondon.ac.uk/copd

#COPDaudit #COPDwhocares?

#COPDwhocaresmatters

We also have a quarterly newsletter, so please send us your email address and contact details if you would like to join the mailing list.

Commissioned by:



HQIP

Healthcare Quality
Improvement Partnership