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# OPTIMISING MANAGEMENT AND IMPROVING OUTCOMES IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE BY INTEGRATING CARE

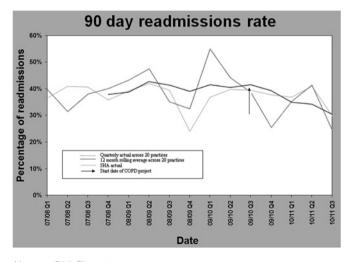
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**Introduction/Objectives** Previous integrated care models for COPD have reduced length of stay slightly<sup>1</sup> or improved patient quality of life. In this study a pathfinder consortium of 20 practices and the local acute hospital, implemented a collaborative project with a partner from the pharmaceutical industry to improve COPD outcomes. The aims were to reduce hospital admissions, re-admissions and length of stay by integrating care via a patient focussed pathway.

**Methods** A care pathway was developed, involving patients, that crossed primary and secondary care boundaries and led to improved access to community respiratory services. In each practice patients with COPD were stratified by risk and reviewed by trained nurses, in a structured format. Practice Nurse educational needs were assessed and a mentorship programme put in place. A Consultant Respiratory Physician from the local hospital visited the practices to discuss COPD management and the care pathway, and now runs on-going education and support. National medicine management guidelines were adhered to and reinforced with all healthcare professionals. The links between primary care and the community respiratory team were enhanced and clear referral guidelines were disseminated. The local patient support group (Breathe Easy) was re-launched.

**Results** Patients were satisfied with the structured nurse-led COPD reviews, 463/487 said they were "very satisfied", and 433/487 said they were "totally aware" of their self-management plan. There was a 21% reduction in COPD hospital bed days and the average length of stay fell from 6.8 days to 5.0 days. At the end of 2010 the 30 day re-admission rate had fallen below the Strategic Health Authority average. Over the 12 months of the project the 90 day re-admission rate fell from 43% to 31%, a 12% reduction not shown previously elsewhere 1—see Abstract P97 figure 1.



## Abstract P97 Figure 1

**Conclusions** By engaging with all aspects of COPD care, an integrated multidisciplinary team improved service delivery and patient care, reducing COPD hospital bed days and re-admission rates. If the current proposed NHS reforms offer an opportunity for better integrated healthcare then they may deliver improved outcomes.

#### REFERENCE

1. NHS Quality Observatory.

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## IMPROVING DIAGNOSIS AND MANAGEMENT OF COPD: LEARNING FROM A PROGRAMME OF NATIONAL IMPROVEMENT PROJECTS

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**Introduction** Chronic Obstructive Pulmonary Disease (COPD) represents an increasing burden for the NHS. National data indicate significant variation in the quality and consistency of diagnosis and management of COPD, with low recorded prevalence and increasing admissions. Early, accurate diagnosis and proactive management can modify disease progression to improve quality of life and use of health care resources. This national improvement programme aims to reduce variation and optimise diagnosis, treatment and use of healthcare resources through implementation of chronic disease management approaches.

**Methods** 16 project sites from primary and secondary care adopted a systematic approach using improvement methodology to analyse existing patient pathways for COPD diagnosis and management, test changes and evaluate impact. Primary care and acute admission data, process mapping and patient feedback was analysed to identify risk, duplication and omissions in care and to evaluate the impact of changes implemented.

**Results** Great inaccuracy was identified in practice registers for COPD and asthma. Projects demonstrated that up to 69% of COPD patients also had a recorded diagnosis of asthma; up to 15% had no spirometry recorded and up to 40% had incomplete results. 21-43% of patients had an FEV $_1$ /FVC ratio >0.7, which is not indicative of COPD. Systematic process improvement of inpatient and community pathways in one project delivered savings of £170k while medicines management reduced one practice's respiratory prescribing costs by £1.5k per month. Consistent coding and use of self management support increased early identification of exacerbation and reduced the rate of COPD exacerbations resulting in admission from 8% to 5% in another project.

**Conclusion** Systematic improvement approaches can help reduce variation, improve quality, reduce admissions, and contain costs without significant impact on resources. Detailed practice-level information can demonstrate significant scope to improve the quality of diagnosis and reliability of appropriate treatment. Consistent coding in primary care is essential for proactive management of patients. Accurate diagnosis and regular review to optimise medicines use can deliver overall cost reductions. Further work is needed to demonstrate how teams can best use existing resources to deliver proactive management of COPD.

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## 30-DAY COPD READMISSIONS RELATE TO DISEASE SEVERITY AND DEMOGRAPHIC FACTORS RATHER THAN SIMPLY ORGANISATION AND DELIVERY OF HOSPITAL CARE

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30-Day readmission rates after hospitalisation have risen and the UK Department of Health plans to introduce financial penalties for early readmissions. The surgical argument is reasonably clear but for chronic conditions such as COPD the presumption that early readmission is either avoidable or due to poor hospital care is far from clear. We used Hospital Episode Statistics data to examine the characteristics of patients readmitted within 30 days of an index COPD hospitalisation during 2006–2007. Mortality data were obtained from ONS death registration. There were 124 834 COPD admissions in 2006–2007 with 78 693 different patients discharged