### LETTERS TO THE EDITOR

# Can financial incentives for improvements in healthcare quality enhance identification of COPD in primary care?

Undiagnosed chronic obstructive pulmonary disease (COPD) is a major public health issue, as it leads to patients missing out on appropriate preventive and therapeutic interventions. <sup>1–3</sup> The ratio of diagnosed/predicted COPD prevalence differs widely between Primary Care Trusts (PCTs), suggesting that there are unacceptable variations in care. <sup>4</sup> A National Clinical Strategy for COPD is to be launched in the UK in 2010 and there is an urgent need for evidence to support strategies to increase the identification of patients, particularly those with early disease.

In 2008 a locally enhanced service (LES) for COPD was introduced by NHS Kensington and Chelsea (K&C), giving general practitioners a small financial incentive for each individual screened and a larger payment for each patient diagnosed with COPD, where the quality items included in the LES were then documented. These included spirometry, pulse oximetry, body mass index, smoking cessation management, inhaler technique, Medical Research Council (MRC) dyspnoea score, medication review, self-management plan, provision of a COPD rescue pack if appropriate and influenza and pneumococcal vaccination (see online for further details)

Practices received two types of payment; one for a screening test and one for the enhanced management of patients. Thus, if a patient was screened and found to have COPD, a practice would be paid both the screening fee and the enhanced management fee. Hence the incentive for screening was to locate new cases, so that they could go through the enhanced management template and attract the enhanced payment. The remuneration for the screening itself was quite small (only £10), but for the enhanced management was more significant (£80). This incentivised practices to focus screening on those patients most likely to have COPD-that is, older individuals and smokers.

Data on COPD prevalence for 31 PCTs in London from 2005 to 2009 were obtained from the national quality outcomes framework database. Individual practice data from K&C were compared with NHS Westminster, a partner PCT in an Integrated Service Improvement Programme, where the LES had not been introduced. Between 2005 and 2008 there was a linear increase in COPD prevalence in K&C ( $r^2=0.997$ ). If the preceding trend had continued, the predicted prevalence for 2009 would have been 0.87% . (95% CI 0.84% to 0.90%), whereas following the introduction of the LES it was 0.98% (figure 1). Neither Westminster nor other London PCTs showed any variation from the

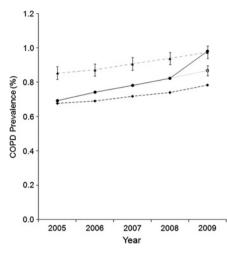


Figure 1 Change in chronic obstructive lung disease (COPD) prevalence over time in Westminster Primary Care Trust (PCT) (lower line, triangles); all London PCTs excluding Kensington and Chelsea (K&C) (upper line, triangles, SEM error bars) and K&C (middle line, circles). The dotted extension of the K&C line shows the projected prevalence and 95% Cls for K&C if the trend in preceding years had continued unchanged. The introduction of the LES (locally enhanced service) in K&C in 2008 was associated with a significant increase in COPD diagnosis in K&C, whereas the underlying trend in other PCTs is unchanged.

preceding 4 years' trend (data for each PCT and comparison of individual Westminster and K&C practices are available online).

In the 39 practices that participated in the LES in K&C, 963 patients were screened with spirometry, 31.5% of whom were diagnosed with COPD. The cost of the screening per diagnosis was £94, which included £1000 given to each participating practice up-front to cover set-up costs for the LES.

Our data are consistent with previous findings that financial incentives can accelerate improvements in healthcare quality. Incentivised targets for quality care in COPD through a LES can drive case-finding in general practice and could lead to a step change in the prevalence of COPD if adopted more widely.

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#### Competing interests None.

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### REFERENCES

- British Lung Foundation. Invisible lives. Chronic Obstructive Pulmonary Disease (COPD)—finding the missing millions. http://www.lunguk.org/Resources/ British%20Lung%20Foundation/Migrated% 20Resources/Documents/I/Invisible%20Lives% 20report.pdf 2007.
- National Institute for Clinical Excellence. National clinical guideline on management of chronic obstructive pulmonary disease in adults in primary and secondary care. *Thorax* 2004;59:i1—232.
- Parkes G, Greenhalgh T, Griffin M, et al. Effect on smoking quit rate of telling patients their lung age: the Step2quit randomised controlled trial. BMJ 2008;336:598—600.
- Nacul L, Soljak M, Samarasundera E, et al. COPD in England: a comparison of expected, model-based prevalence and observed prevalence from general practice data. J Public Health(Oxf) 2010:doi:10.1093/ pubmed/fdq031.
- Campbell SM, Reeves D, Kontopantelis E, et al. Effects of pay for performance on the quality of primary care in England. N Engl J Med 2009;361:368–78.

Multidrug-resistant tuberculosis: resistance rates to first and reserve antituberculosis drugs in the UK in 2008/9 and the role of rapid molecular tests for drug resistance

At the Health Protection Agency National Mycobacterium Reference Laboratory (HPA NMRL) between January 2008 and December 2009, we evaluated in patients with multidrug-resistant tuberculosis (MDRTB; isolates resistant to rifampicin and isoniazid) the rate of resistance to other first-line drugs (ethambutol and pyrazinamide) and to reserve drugs and the role of rapid molecular tests for rifampicin (and MDRTB) resistance.

MDRTB is difficult to manage—drugs are toxic, less effective and costly. Further problems arise from extensively drug-resistant tuberculosis (XDRTB); MDRTB isolates resistant to a quinolone and any of the injectable drugs (amikacin, capreomycin, kanamycin). Effective management of

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