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## Editoria

### Health care utilisation for respiratory symptom

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The burden of respiratory disease for the NHS is substantial, with more people consulting their GP in relation to respiratory problems than for any other group of diseases<sup>1</sup>. Furthermore 18% of emergency admissions to hospitals are the result of respiratory problems<sup>2</sup>. Asthma costs are of worldwide concern the cost per year for each patient with asthma in Sweden has been conservatively estimated at £870; in the United Kingdom, £700; and in Australia, £510<sup>3</sup>. Studies have shown that the direct healthcare costs of asthma have increased substantially in recent years for example by nearly 40% between 1985 and 1998 in the USA<sup>4</sup>.

We do not currently have substantial evidence that chronic respiratory disease, asthma and COPD in particular are less than optimally managed with many patients not meeting the goals set out in guideline<sup>5,6</sup> and the care is variable and often less than optimal delivered<sup>8,9</sup>.

It is surprising therefore that little national priority until now has focused on chronic respiratory disease and even at local level only about a quarter of Health Improvement Programs include respiratory disease<sup>10</sup>. One barrier to this is the difficulty in estimating the local population burden of disease, the current cost of managing it and the impact on health care costs if management was improved.

The paper by Hazell et al in this edition of the journal (pp 61-64) may provide a useful tool in understanding these resource issues. The instrument contains questions about respiratory symptoms in which increasing numbers of positive responses are associated with greater use of primary and secondary care resources for respiratory disease. This may seem blindingly obvious but has significant implications if some of its current limitations can be overcome.

These limitations include

- limited current information on the sensitivity and specificity of the instrument for chronic respiratory diseases particularly whether it differentiates between asthma and COPD or provides information on both
- does the instrument capture anything of the severity of disease or simply the likelihood of its presence
- the need for validation beyond the two practices under study
- whether the questionnaire results are affected by effective treatment although this would appear unlikely with the low level of symptoms required to trigger a response to the questions asked
- the need for modelling of health care utilisation in

association with answers given and standard of care given

- what size of population sample is required to give reliable estimates of chronic respiratory disease and expected health care dependent on standard of care provided

With these limitations in mind, this instrument has potential usefulness in primary care. These include

#### 1) Use in determining underdiagnosis and screening for respiratory disease

The instrument might be useful in screening for and determining the extent of unrecognised chronic respiratory diagnoses in a population once it is clear how predictive the measure is of asthma and also whether an amended instrument might do the same for COPD. The measure(s) could be administered to a random sample of patients in a locality and rate compared with local disease registers. This would require a clear understanding of the predictive nature of the instrument for asthma and other chronic respiratory disorders.

#### 2) Determining cost of diagnosing undiagnosed respiratory diseases

If diagnosis levels are improved, primary care organisations might be anxious about the impact of prescribing and management costs as well as additional requirement for medical resources. The current cost of diagnosing symptomatic but undiagnosed patients with chronic respiratory disease might be calculated using this measure. This would require further development of the instrument with some validation of the difference in health care costs for patients with similar scores with and without chronic respiratory diagnoses. A prospective study to assess to what extent the costs of healthcare change in respect of a diagnosis triggered by using these questions would therefore be helpful.

#### 3) Predicting health care utilisation for respiratory disease in a population

Subject to validating Hazell et al's instrument on other populations, it would take little development to generate a tool for predicting healthcare utilisation. This would be especially useful for estimating costs that are currently difficult to measure beyond the patient and practice level such as asthma drug utilisation; in the UK current PACT data does not differentiate between respiratory disease drug prescribing

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**d) Understanding variation in respiratory health care**

There is significant variation in drug utilisation for respiratory disease<sup>1</sup> and in outcomes, such as death rates from COPD<sup>2</sup>. It is unclear at the present time to what extent this is due to variation in disease or to practice, although it is likely to be a bit of both. This instrument would remove variation in disease from the equation and would highlight differences and their impact in practice.

**e) Comparing healthcare costs between those offering higher quality respiratory health care**

There is some evidence that those people cared for by health professionals with an interest in asthma might have a different pattern of health care utilisation than those without<sup>43,1</sup>. One of the major difficulties in undertaking these evaluations has been population variation in respiratory disease. Using this questionnaire to verify population respiratory diseases and the methodology of capturing health care cost may clarify the associated impacts of good respiratory healthcare. In fact, it may be of particular use with the advent of increasing specialism in primary care as a part of a formal evaluation of any specialist service introduced for the management of respiratory health

If the instrument can be validated in the population at large to reliably predict burden of respiratory diseases and expected health care resource utilisation, with high level disease management, it would enhance the argument for adequate resources to support primary care management of respiratory disease ■

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