

for routine disease monitoring. Tower Hamlets in east London, with an ethnically diverse and socio-economically deprived population has rates of COPD above the national average. Smoking rates continue to increase and respiratory admissions are among the highest in London. An audit in April 2004 showed that of the 2992 patients on COPD registers only 13% had a record of spirometry undertaken ever. Spirometry was only available in secondary care following consultant referral. Only 14 of the 42 practices offered practice based spirometry; few practitioners had received any systematic training. *Aim:* In April 2005 the Tower Hamlets Community Spirometry Service was launched with the aim of increasing equitable access to spirometry to patients, regardless of the level of respiratory service within their general practice. *Method:* The service has developed a simultaneous three pronged approach;

1. Hospital based open access sessions.
2. Peripatetic technician led clinics in GP surgeries.
3. Practice spirometry loan and teach scheme.

These are supported by

1. Technician support and annual clinical governance review visit to all practices providing spirometry.
2. University accredited work based learning module.
3. Electronic transfer of spirometry results, available to all clinicians in primary and secondary care.
4. Local enhanced scheme for COPD.

Results: By December 2005 over 50% of patients with COPD had had spirometry undertaken. We will, by June 2006, expect to demonstrate that such a flexible scheme not only increases uptake especially in hard to reach communities but it increases confidence and skill in undertaking and interpreting spirometry. *Conclusion:* A community based spirometry service will increase uptake of spirometry in a deprived inner city borough and increase skill and confidence amongst primary care staff.

Conflict of interest and funding

None.

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ABS21: Cost of asthma to the health service: a UK prospective study

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Background: Asthma is a long-term condition responsible for substantial morbidity and health service utilization. Little is known of its impact on the everyday quality of life of patients over a sustained period of time or the true costs to the Health Service (NHS in the UK). *Aim:* A representative UK sample of people with asthma (aged 12–55) were monitored to assess the everyday impact of asthma on their lives, to estimate the costs of asthma to the NHS, and to assess potential cost predictors. *Method:* A prospective observational study started in 2003 with a one year follow-up. Practices involved in a previous UK wide audit study were stratified, randomly selected and invited to enrol and recruit 30 patients with asthma on BGAM step 2 or above. Data was collected in practice and via monthly telephone interview. Analysis determined NHS Costs and patient quality of life. *Results:* A total of 308 patients gave 2,838 monthly interviews. The mean monthly cost to the NHS (excluding medication costs) was £20.51 with a median of zero. Patients used their reliever medication a median of 6 days per month and a median of twice a day. There were strong significant associations of NHS cost with the number of days where normal activities were disrupted, and the frequency of reliever use ($p < 0.0001$). Younger individuals (aged 12 to 19) at BGAM steps 3 and 4 contributed significantly to higher costs compared with

those aged 20 to 55. The derived model provided a means of estimating predicted costs according to characteristics of the patient with asthma. *Conclusion:* Hospitalisation is the driver for high NHS costs for individual patients, especially among younger adults and teenagers. Cost savings are likely if interventions to prevent hospitalisation are targeted at this age group.

Conflict of interest

None.

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ABS22: Development of a questionnaire for the assessment of bronchial hyperresponsiveness: the BHQ

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Introduction: Assessment by the general practitioner of the presence, the severity or even the changes in time of BHR by a questionnaire would be an advantage in diagnosing and monitoring patients with asthma. *Aims and objectives:* The aim of the study is to select a reliable set of respiratory symptoms and stimuli for the preliminary version of the Bronchial Hyperresponsiveness Questionnaire (BHQ). *Subjects and method:* A preliminary list of 33 symptoms and 64 stimuli was composed by review of literature, in depth interviews and focus group discussions with asthma patients. After a histamine challenge test patients ($n=302$) were asked to score each item on a 7-point Likert scale (0=no; 6=severe complaints). The questionnaires of patients with a positive challenge test ($n=225$) were selected for factor and ROC analysis. A Spearman's rank correlation test was performed to investigate the relation between the PC₂₀-histamine and the scores on the questions in the group of patients with doctors diagnosed asthma ($n=181$). An expert panel was asked to define criteria for the selection of suitable questions for the BHQ. Selection criteria were: a significant correlation coefficient of ≥ 0.20 and/or a significant positive ROC-analysis. *Results:* 34 symptoms and stimuli showing a relation with the PC₂₀ were selected for the BHQ. *Conclusion/discussion:* The symptoms and stimuli correlating best with the PC₂₀ may give an indication of the severity of BHR whereas symptoms and stimuli with significantly ROC-scores are probably sensitive for detecting the presence of BHR. To support this hypothesis further (validation) studies are necessary.

Conflict of interest and funding

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