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ABS17: Linking evidence to policy – lessons from the national evaluation of the Asthma 3+ Visit Plan in Australia

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Introduction: The Asthma 3+ Visit Plan (rewarding systematic asthma care in primary care) is unique to Australia. Based on the Six Step Asthma Plan, it comprises three GP visits over four months for patients with moderate to severe asthma. GPs receive an incentive payment on completion of the three visits. **Objectives:** The Aim was to establish the degree of uptake of the Plan. **Objectives** included identifying barriers and enhancers to uptake for consumers and GPs. **Subjects:** GPs, GP organisations and consumers (including non English speaking and Aboriginal and Torres Strait Islander peoples).

Methods:

- Statistical analysis of Medicare GP Payment data
- A semi structured phone interview of all 120 National GP Organisations
- A GP Survey (of a stratified sample of GPs)
- Consumer interviews
- Focus groups with non English speaking Australians
- Aboriginal and Torres Strait Islanders uptake analysis

Data from all these elements were analysed and triangulated and this paper reports on this extensive analysis. **Results:** Uptake remains low and has not increased notably since a peak six months after introduction in 2001. Key barriers identified were:

- Structure of the incentive
- Lack of consumer education
- General Practice systems

The current Plan is not appropriate for Aboriginal and Torres Strait Islander or CALD populations. **Conclusion:** A 'one size fits all' policy does not meet the range of needs across the Australian community. The value of rewarding systematic asthma care in primary care was however demonstrated. Flexibility, multi-disciplinary participation and a recognition of differing practice circumstances is required and efficient general practice systems are demonstrated as the key to systematic chronic disease interventions. Consumer education is needed around preventive health care.

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ABS18: Role of hypertonic saline in bronchoprovocation for the diagnosis of bronchial asthma

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Introduction: Bronchoprovocation is performed to evaluate bronchial hyper-responsiveness. Almost all asthma patients demonstrate bronchial hyper-responsiveness. **Materials and method:** 50 non-smoking adults with complaints of breathlessness, cough, chest tightness & positive family history of bronchial asthma, baseline FEV₁ > 70% of predicted (mean FEV₁ = 84, median value = 81.7) were included in this study. Patients underwent bronchoprovocation using methacholine followed by hypertonic saline, 7 days apart or vice versa. **Results:** Of 50 patients, 34 were male, 16 were female with a mean age of 26.44 years. With 1 mg/ml of methacholine fall of FEV₁ > 20%, 10–20%, <10% was observed in 36 (72%), 8 (16%) & 6 (12%) patients respectively. With 14% hypertonic saline >20% fall was observed in 32 (64%), >10–20% in 4 (8%), 5–10% in 2 (4%) & <5% in 2 (4%) patients. No response was observed in 10 patients. **Conclusion:** This study shows that hypertonic saline is an equally effective but more specific bronchoprovocative agent than methacholine in bronchial asthma. Since hypertonic saline is very cheap and easily available, we propose that it should be considered as a reliable bronchoprovocative agent for the diagnosis of bronchial asthma in poor countries.

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ABS19: Parents' perceptions of asthma in children aged 2–5 years

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Introduction: There is reluctance on the part of clinicians to diagnosis asthma in young children consequently parents of children with asthma express anxieties about how to manage their child's symptoms. **Objective:** To explore the significance of a diagnosis on parents. **Methods:** The purposive sample consisted of parents of 28 children with newly diagnosed asthma aged 2–5 years. Data were analysed using the principles of grounded theory. **Results:** During the pre-diagnosis phase parents learned that asthma is variable. Conflicting advice from professionals influencing their view about preventative treatment. Parents had few concerns about steroids although this view changed by the 2nd interview. **Conclusion:** Parents views of asthma were shaped by the events leading up to the diagnosis and these influenced how they managed the condition now and in the future.

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ABS20: Developing a community based spirometry service for east London

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Introduction: Spirometry is the gold standard for the diagnosis and classification of severity in chronic obstructive pulmonary disease (COPD). It also provides a valuable tool

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.

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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.

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