ABS38: Add-on omalizumab significantly improves quality of life in patients with severe persistent allergic (IgE-mediated) asthma

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Introduction: Patients with severe persistent allergic asthma experience frequent serious exacerbations and daily symptoms that diminish health-related quality of life (QoL). *Aims and objectives:* To evaluate effects on QoL of add-on omalizumab, an anti-IgE therapy. *Subjects and method:* A pooled analysis of data from six controlled clinical trials of omalizumab in asthma patients (96% having severe persistent asthma) was conducted. Omalizumab was added to current asthma therapy and compared with placebo (five double-blind studies) or with current therapy alone (one open-label study). Asthma-related QoL was assessed at baseline and endpoint using the Juniper Asthma Quality of Life Questionnaire (AQLQ). Change from baseline in AQLQ overall score was compared between treatments using analysis of covariance methods. Percentages of omalizumab- and control-treated patients achieving clinically meaningful ($\geq$0.5-point) improvement in AQLQ overall score were compared using Mantel-Haenszel chi-square tests. Additionally, QoL data were separately evaluated from one study included in the pooled analysis: INNOVATE, a 28-week randomized double-blind study which exclusively enrolled patients for whom omalizumab is indicated in the EU (patients with severe persistent allergic asthma that is inadequately controlled despite high dose ICS plus LABA). *Results:* QoL data were available from 2,548 patients (pooled analysis: omalizumab $n = 1,342$, control $n = 1,206$) and 419 patients (INNOVATE). Add-on omalizumab produced significantly greater improvements than control ($p < 0.01$, both analyses) for each individual AQLQ domain and overall score. Significantly more omalizumab patients achieved clinically meaningful ($\geq$0.5-point) improvement in AQLQ overall score at endpoint versus baseline than control patients (pooled analysis: 66.3% vs 52.4%, $p < 0.001$; INNOVATE: 60.8% vs 47.8%, $p \leq 0.008$). *Conclusions:* Add-on omalizumab improves QoL to a significant and clinically meaningful level in patients with severe persistent allergic asthma. Moreover, similar results were obtained in a population of patients with inadequately controlled severe persistent allergic asthma despite receiving high-dose ICS and LABA.

Conflict of interest and funding
Supported by Novartis Pharma AG.

doi:10.1016/j.pcrj.2006.04.137

ABS40: Exploring professional and patient attitudes to mobile telephone-based technologies for monitoring asthma: Qualitative study

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Introduction: Mobile phones offer innovative opportunities for healthcare monitoring. It is, however, far from clear how healthcare professionals and patients view the potential offered by such technology and how this may impact on the dynamics of asthma monitoring and care provision. *Aims and objectives:* To examine patient and healthcare professional attitudes towards the benefits and practical application of using mobile telephone-based technologies for monitoring asthma. *Subjects and methods:* Six focus groups (involving 28 patients with asthma and 12 professionals). Exploration of initial attitudes was followed by demonstration of the e-San/O2 asthma monitoring technology, Subsequent discussion focused on potential applications. Data analysis was iterative, with key emerging themes identified using NVivo. *Results:* There was broad agreement between patients and professionals that practical applications included more efficiently confirming a diagnosis, identifying triggers (at both individual and population levels) and monitoring severe disease. Divergent opinions were, however, expressed on the impact on the patient-professional relationship: either enabling self-management or, conversely, increasing professional supervision. Perceived benefits identified included facilitating compliance with monitoring and enabling remote consultations. Participants raised concerns about costs, and who should pay (the patient or the health service), reliability and security of technology, and the potential for increasing social exclusion. *Conclusions:* Although not universally applicable, mobile telephone based monitoring for asthma was seen as having some important benefits for some people in some situations (e.g. enabling newly diagnosed patients to identify triggers, monitoring exacerbations in people with severe asthma) Practical considerations, such as cost, security and dependability of the technology will need to be addressed before widespread uptake.

Conflict of interest and funding
None. Funding: British Lung Foundation.

doi:10.1016/j.pcrj.2006.04.138

ABS41: Montelukast as first-line preventative treatment for asthma in children age 2—5 yrs: A retrospective study

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Introduction: Inhaled corticosteroids (ICS) are the main treatment for persistent asthma in younger children in the UK. Montelukast is infrequently used as monotherapy. *Aims:* To evaluate asthma outcomes in children commenced on ICS or Montelukast as first maintenance treatment in routine practice utilizing the General Practice Research Database. *Methods:* Children aged 2—5 yrs. prescribed Montelukast or ICS as first maintenance asthma treatment having 12 months data before and after initiation were identified. Successful treatment was defined as: no hospital attendance, no oral corticosteroids, average daily dose of short acting B agonist (SABA) of under 1 dose/day over next 12 months. *Results:* Baseline data: no significant differences between Montelukast ($n = 24$) or ICC ($n = 27041$) cohorts in age, sex, rhinitis, respiratory hospitalisations, receipt of antibiotics for respiratory infections, courses of oral corticosteroids; montelukast cohort had fewer asthma consultations (Median, IQR) 0 (0—1) vs. 0 (0—1) $p = 0.03$, SABA devices prescribed, 0.5 (0—1) vs. 1.0 (0—2) $p = 0.01$. In the subsequent 12 months, the montelukast cohort were prescribed fewer SABA inhalers: 1, (0—2) vs. 2 (1—3) $p > 0.001$, fewer oral corticosteroid courses: (0 (0—0) vs. 0 (0—0), average 0.04 vs. 0.34, $p = 0.03$. No significant differences in asthma consultations, respiratory hospitalisations or antibiotics for respiratory infections. Successful treatment was observed for 58% of LTRA and 33% of ICS cohort ($p = 0.01$). Adjusted for baseline differences, odds ratio (95% CI) for success with LTRA was 2.4 (1.0—5.4) $p = 0.04$. *Conclusions:* In this 'real-work' database, limited experience with montelukast showed superior success to ICS therapy. Further research is required.

Conflict of interest and funding
None. Funding: An unrestricted grant from MSD.

doi:10.1016/j.pcrj.2006.04.139