confirmed diagnosis of hay fever. The minimum length of follow-up was stipulated as being 2 weeks. The interventions and comparisons analysed were those including topical or systemic antihistamines, decongestants, leukotriene antagonists and ipratropium bromide. Steroids were not included as they are preventative rather than curative. Our primary outcome measure was rhinitis quality of life using the validated Juniper Rhinitis Quality of Life Questionnaire. Secondary parameters of effectiveness included visual analogue rhinitis symptom score completed by the doctor and/or patient, medication usage and medication usage scores, days off school or work and adverse events.

Results: We found 68 trials satisfying our inclusion criteria, although only four of these had used formally validated outcome measures (Juniper-RQLQ) to assess clinical effectiveness. Because of the heterogeneous nature of the studies identified, we used a narrative overview to summarise data. Three trials have shown that oral fexofenadine significantly improves disease specific quality of life and evidence from one trial indicates that a combination of oral monteleukast and loratadine is also clinically effective. Numerous trials indicate that a number of oral antihistamines with/without oral decongestants improve rhinitis symptoms. Topical levocabastine is also of benefit in reducing rhinitis symptoms but there is at present confliciting evidence on the usefulness of other topical treatments (azelastine and ipratropium bromide).

Conclusions: Fexofenadine and a combination of oral monteleukast/loratadine should be regarded as first line interventions for the medical treatment of SAR. There is evidence to suggest that other oral antihistamines and intranasal levocabastine are also likely to be of clinical benefit.

Co-authors: Dhami S, Sheikh A
Source of funding: NHS/PPP National Primary Care Post Doctoral Fellowship supports Aziz Sheikh
Conflicts of interest: None declared.

Are Community Pharmacists prepared for an increasing role in the management of people with asthma?

ABV19PR

Gaylor Hoskins, Tayside Centre for Primary Care, University of Dundee
Prim Care Resp J 2003; **12(2)**:68

Introduction: An increasing emphasis is being put on the contribution and role of pharmacists in improvement in care of asthma. In Scotland, pharmacists are already playing an ever increasing part in the management of people with asthma. Previous work had suggested that barriers (lack of training and resources) hindered optimum involvement of pharmacists in asthma care. This survey aimed to assess the current role of community pharmacists in Scotland in providing information and advice to people with asthma.

Method: Stratified by health authority and size, pharmacists from a 1:4 random sample of all Scottish pharmacies completed a telephone questionnaire. Data included details on location, staff, facilities, training, patient education, and communication and was analysed using SPSS.

Results: Presented as raw figures with weighted percentages to be representative of Scotland. 258 pharmacies were contacted and a total of 254(98%) pharmacists completed the interview questionnaire. Of these, 133(54%) said that the premises in which they were working had 'private' consulting facilities; in 45(16%) this was in a room or cubicle separate from the main shop. 66(26%) had attended an accredited asthma training course. All had dispensed asthma medication in the past week; 111(43%) had given advice on inhaler technique to customers, and 69(27%) had provided advice on deteriorating symptoms. 85(32.5%) had liaised with general practice in the previous year about asthma issues. Those with asthma training [66(26%)] were more likely to have liaised with GPs in their area about asthma issues [$p<0.001$], and given advice to customers on deteriorating symptoms [$p<0.01$].

Conclusion: The results from this survey indicate that barriers continue to exist and that community pharmacists need more support and resources if they are to provide a service to people with asthma which can integrate with the care offered by health professionals in primary and secondary care.

Many patients perceive numerous side effects of inhaled corticosteroids

AB20PR

Juliet M Foster, Department of Primary Care and General Practice, University of Aberdeen
Prim Care Resp J 2003; **12(2)**:68-69

Background: Side effects of inhaled corticosteroids (ICS) are often described in the literature as infrequent and of minor consequence to patients' health. However, little is known about patients' perceptions of side effects related to ICS use.

Methods: From the transcripts of 12 in-depth interviews and 2 focus groups (n=22, 68% male, mean age 54) we documented 57 potential side effects that patients associated with their ICS medication which were subsequently put onto a 7 point Likert scale questionnaire (Inhaled Corticosteroids Questionnaire (ICQ)). The ICQ was administered to patients recruited through community pharmacies in Aberdeen, Scotland, and Groningen, The Netherlands. Patients using ICS (low 400µg; mid 401-800µg; or high >800µg dose BDP equivalent daily) or using ß2-agonist inhaler without ICS were eligible. Analysis was performed using the Jonckheere-Terpstra Test (differences between 4 medication groups) and multiple regression (main and 2 way interactive effects of dosage group, age, gender, post inhalation mouth rinsing and smoking on side effect scoring).

Results: 395 patients participated (mean age 50, 53% female), 329 using ICS (400µg, n=109; 401-800µg, n=151; >800µg, n=69; BDP equivalent daily) and 66 using a ß2-agonist inhaler without ICS. Almost half of all ICS users were affected by 10 or more side effects of a moderate amount or greater. 45 patient perceived side effect items including hoarseness, inability to sing, oral thrush, dental decline, skin atrophy, and vision affected showed a statistically significant difference between medication groups (all $p<0.05$). A clear ICS dose-response existed for nearly all 45 items. Multiple regression showed that dosage pre-eminently influenced side effect perception in 42 of 57 items of