ABS004: The concept, prevalence and consequences of low tolerance to ICS in asthmaRob Horne^a, David Price^b, Amanda Lee^b, Stan Musgrave^c^a University of Brighton, Mayfield House, Falmer Campus, Brighton, BN1 9PH, United Kingdom ^b Aberdeen, United Kingdom ^c East Anglia, United Kingdom

Introduction: The concept of low tolerance to ICS can be extended beyond the experience of side effects to include conceptual barriers such as doubts about personal need for ICS, and concerns about ICS. **Aims and objectives:** To assess the prevalence of low tolerance to ICS and consequences in terms of ICS adherence and asthma control. **Subjects and methods:** 2372 patients managed in primary care at steps 2 and 3 of the asthma guidelines who participated in the Asthma Control, Concordance and Tolerance (ACCT) initiative and completed the Minimum Asthma Assessment Tool (MAAT) [1] and Asthma Control Questionnaire (ACQ) [2]. ICS adherence was measured by validated self-report [1], cross-checked against prescription redemption data. **Results:**

Prevalence of low tolerance to ICS

Experiential – Patients attributed bothersome symptoms to ICS: cough (31.5%), hoarse voice (20.6%), sore mouth (17.3%), weight gain (12%), bruising (9.4%), dental decay (9.3%), and oral thrush (8.8%). **Conceptual**– 21.4% reported concerns about ICS (e.g. long term effects, dependency, difficult to use and inconvenient) and 17.8% had doubts about their need for ICS.

Consequences of low tolerance

Low adherence to ICS (38.3%) was associated with the attribution of bothersome symptoms to ICS ($t=3.06$; $p<0.005$), doubts about personal need for ICS ($t=20.83$; $p<0.001$) and ICS concerns ($t=7.10$; $p<0.001$). ICS non-adherence was related to poor asthma control (ACQ $t=3.83$; $p<0.001$). **Conclusions:** Experiential and conceptual indicators of low tolerance to ICS were prevalent and associated with low adherence to ICS and hence asthma control.

Conflict of interest and funding

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References

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ABS005: Effectiveness of inhaled corticosteroids in preschool children with recurrent respiratory symptoms in general practice: Asterisk studyS. Schokker^a, E.M.W. Kooi^b, E.J. Duiverman^b, T.W. de Vries^c, P.L.P. Brand^d, P.G.H. Mulder^e, T. van der Molen^a

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Introduction: Therapy with inhaled corticosteroids (ICS) is beneficial in patients with asthma. However, in preschool children with symptoms like cough, wheeze and shortness of breath diagnosing asthma is difficult. In these children

the benefits of ICS are less clear. **Aim:** To evaluate the effectiveness of fluticasone propionate (FP) in preschool children with recurrent respiratory symptoms in general practice. **Subjects and methods:** 96 children aged 1–5 year (mean age 2.6; 69% male) consulting their general practitioner (GP) for respiratory symptoms and in whom treatment with ICS was considered by the GP participated in a multi-center, double-blind, placebo controlled study (ASTERISK). Participants were randomly assigned to either FP 100 mcg or placebo twice daily via MDI + spacer for 6 months. Daily record cards completed by the parents were used to evaluate symptoms (cough, wheeze, and shortness of breath) at 1, 3, and 6 months. In addition, lung function was measured by means of the interrupter technique and the forced oscillation technique. **Results:** Both groups showed a significant improvement in total symptom score during the study period, with no difference between both treatment groups. No differences in lung function variables were found between the two treatment groups. **Conclusion:** Treatment with ICS has no beneficial effect in preschool children with recurrent respiratory symptoms in general practice.

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ABS006: Montelukast add-on therapy compared to high-dose inhaled corticosteroids in children age 2–5 yrs with asthma: a retrospective studyMike Thomas^a, Julie von Ziegenweidt^b, David Price^{a,b}

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Introduction: For children aged 2–5 with asthma uncontrolled on standard doses of inhaled corticosteroids (ICS), options include addition of montelukast or higher-dose ICS. **Aims:** To compare outcomes in children stepping up to either treatment, utilizing the General Practice Research Database. **Methods:** Asthmatic children aged 2–5 yrs. treated by ICS (200 mcg/day beclomethasone equivalent or less) whose first treatment increase was addition of montelukast or increased-dose ICS, having 12 months data before and after step-up were identified. Successful treatment was defined as: no recorded hospital attendance, no oral corticosteroids, average use of short acting B agonist (SABA) of under 1 dose/day over 1 year. **Results:** Montelukast ($n=127$) and ICS ($n=3596$) cohorts were similar in age and sex, and prior to step-up had similar asthma consultations, respiratory hospitalisations, antibiotics use for respiratory infections; montelukast cohort used more SABA devices, median (IQR) 3 (2–5) vs. 2 (1–4) $p>0.000$, and more oral steroid courses, 0 (0–0) vs. 0 (0–0), average 0.68 v 0.52, $p=0.019$, and a lower proportion had rhinitis (5% vs. 13%, $p=0.004$). In the 12 month outcome period, the montelukast cohort showed non significant trends to fewer SABA devices: 2 (1–4) vs. 3 (1–4) $p=0.203$ and oral steroid courses: 0 (0–0) vs. 0 (0–1), average 0.39 vs. 0.44, $p=0.431$. No significant differences in asthma consultations, respiratory hospitalisation or use of antibiotics. Successful treatment was observed for 33% of LTRA and 25% of ICS cohort ($p=0.052$). Adjusted for baseline differences, the odds ratio (95% CI) for success with LTRA compared to ICS was 1.9 (1.3–2.8) $p=0.002$. **Conclusions:** In this 'real-work' database, patients stepped up by montelukast addition had an almost doubled chance of successful treatment over those increasing ICS dose.

Conflict of interest and funding

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