## **Poster sessions**

**Discussion** Before starting regular oral prednisolone or Omalizumab in difficult paediatric asthma a trial of DOT could be worth considering. It is safer and cheaper.

#### REFERENCES

1. Halterman JS *et al.* Randomized controlled trial to improve care for urban children with asthma: results of the School-Based Asthma Therapy trial. *Arch Pediatr Adolesc Med.* 2011 Mar;165(3):262–8. doi: 10.1001/archpediatrics.2011.1.

#### P86 EXPLORING THE EMOTIONAL JOURNEY PATIENTS WITH ASTHMA EXPERIENCE AND THE DIFFERENCE BETWEEN CHILDHOOD AND ADULT DIAGNOSIS

Y Ochiai, NF Mathieson, C Goode, A Mulgirigama; *Boehringer Ingelheim UK Ltd, Bracknell, UK* 

10.1136/thoraxjnl-2013-204457.236

**Background** Asthma affects 5.4 million people in the UK. We wanted to explore the emotional journey patients with asthma experience during their management.

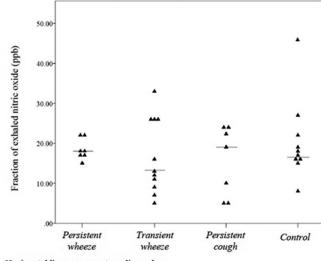
Methods Market research was conducted with an independent agency to investigate the emotional journey patients with asthma experience. Methodologies used to collect this data included patient immersion interviews with ethnographic elements, video diary and the Soulmate<sup>™</sup> Duo interview technique. Soulmate<sup>™</sup> is a technique where for a proportion of the interview, patients interview each other without a moderator, allowing deeper insight into their experiences to be obtained. A total of 21 patients were interviewed, including partners and families to fully understand the impact of asthma on the individual affected. Results Experience of asthma varies considerably depending on whether symptoms first presented in early childhood or later in life. Patients diagnosed in childhood or infancy were found to normalise their symptoms more and may underestimate the severity of their condition, leading to lower adherence. Those diagnosed in adulthood were found to be more aware of the impact asthma was having upon their life. These patients tend to be regimented about taking medication and develop strategies to help them remember. Patients experience a range of emotional ups and downs throughout the treatment journey. The emotional dynamic was found to change with certain events, from diagnosis to their first asthma exacerbation. The key emotional themes identified with regards to asthma as a disease were feeling; 1) vulnerable and insecure of experiencing an asthma attack at any time, 2) restricted and constrained in terms of what they could do with their life, 3) tired and deflated over a battle that can never be won, 4) calm and relaxed when they did not experience symptoms. Impact on partners of patients with asthma was significant and often unrecognised.

**Conclusions** Patients diagnosed with asthma in childhood are at risk of under-estimating their symptoms and are potentially at greater risk of being mis-managed. These patients need a deeper exploration of their asthma symptoms to optimise their management.

#### P87 IS FRACTION OF EXHALED NITRIC OXIDE (FENO) IN ASYMPTOMATIC OLDER TEENAGERS RELATED TO PRESCHOOL WHEEZE AND CHRONIC COUGH?

<sup>1</sup>LR Marshall, <sup>1</sup>C Beardsmore, <sup>1</sup>W Monteiro, <sup>2</sup>A Pescatore, <sup>2</sup>C Kuehni, <sup>1</sup>E Gaillard; <sup>1</sup>University of Leicester, Leicester, United Kingdom; <sup>2</sup>Institute of Social and Preventive Medicine, University of Bern, Bern, Switzerland

10.1136/thoraxjnl-2013-204457.237



Horizontal lines represent median values.

# Abstract P 87 Figure 1. Fraction of nitric oxide in exhaled breath of persistent wheeze, transient wheeze, persistent cough, and control groups.

**Background** Many children with preschool wheeze and chronic cough become asymptomatic in later childhood, only for asthma to be diagnosed in adulthood (1). A previous study found in individuals with apparently outgrown childhood asthma, fraction of exhaled nitric oxide (FeNO) was significantly increased (2). Whether teenagers with a history of preschool wheezing or chronic cough have elevated FeNO, and whether this differs between preschool wheeze phenotypes is unknown.

Aims We compared FeNO and induced sputum inflammatory cell counts in asymptomatic teenagers from the Leicestershire Respiratory Cohort, who had persistent 'multiple trigger' wheeze (PW), transient viral wheeze (TW), persistent cough (PC), or no respiratory symptoms (controls) during the preschool years.

Methods Thirty-six subjects (mean age: 16 years) participated: 7 with PW; 12 with TW; 7 with PC; and 10 controls. FeNO was measured using a portable electrochemical analyser (NIOX MINO<sup>®</sup> Asthma Inflammation Monitor, Aerocrine AB, Sweden). Sputum was induced with nebulised hypertonic saline and processed according to previously published protocol (3) with an adaptation for smaller samples.

**Results** There was no statistically significant difference in mean logFeNO between groups (p = 0.563) (Figure 1). Median% sputum eosinophils for PW and TW groups were significantly higher than in controls. Sputum total cell counts were significantly greater in PW and PC groups than in controls.

**Conclusions** We did not find evidence that FeNO in asymptomatic adolescents is related to history of preschool wheeze and chronic cough. However, we found evidence that eosinophilic airway inflammation is increased in asymptomatic adolescents with preschool PW and TW. The relationship between FeNO and evidence of elevated inflammatory cell counts in sputum remains enigmatic. These findings have implications for the understanding of the natural history of preschool wheeze and chronic cough.

### REFERENCES

1. Roorda RJ. Prognostic factors for the outcome of childhood asthma in adolescence. *Thorax* 1996;51(S1):S7-S12.

2. van Den Toorn LM, et al. Adolescents in clinical remission of atopic asthma have elevated exhaled nitric oxide levels and bronchial hyperresponsiveness. Am J Respir Crit Care Med 2000 Sep;162(3 Pt 1):953–957.

3. Pin I, et al. Use of induced sputum cell counts to investigate airway inflammation in asthma. *Thorax* 1992;47:25–9.