producing, identifying the cause of the EID and providing recommendations for a potential solution relieves that anxiety component which was likely to be a factor in seeking medical care and receiving inappropriate treatment in the first place.

In the study by Saer *et al*, one wonders if all eight children identified as having EIA actually had asthma as the cause of their EID since the diagnosis was based on an FEV₁ decrease $\geq 10\%$ but $< 15\%$ in six, decreases which may be within normal limits for non-asthmatics.³ In contrast to the 21% of children with no diagnosis for their EID, we were able to identify the cause of EID in all of our patients in whom full cardiopulmonary monitoring was performed in association with sufficient exercise to reproduce their symptoms.

Thus, while we certainly agree with Seear *et al* and the accompanying editorial that EIA is overdiagnosed, our experience would argue for exercise testing that reproduces the symptoms of EID during continuous cardiopulmonary monitoring for those whose history is otherwise atypical for asthma.

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References

- 1 Seear M, Wensley D, West N. How accurate is the diagnosis of exercise induced asthma among Vancouver school children. *Arch Dis Child* 2005;**90**:898–902.
- 2 Helms PJ. Exercise induced asthma: real or imagined? *Arch Dis Child* 2005;**90**:886–7.
- 3 Abu-Hasan M, Tannous B, Weinberger M. Exercise-induced dyspnea in children and adolescents: if not asthma then what? *Ann Allergy Asthma Immunol* 2005;**94**:366–71.
- 4 Hammo AH, Weinberger M. Exercise induced hyperventilation: a pseudoasthma syndrome. *Ann Allergy Asthma Immunol* 1999;**82**:574–8.
- 5 Kattan M, Keens TG, Mellis CM, *et al*. The response to exercise in normal and asthmatic children. *J Pediatr* 1978;**92**:718–21.

Accident and emergency: a gateway to improve the management of atopic disease

We read the recent paper by Holgate and Lack¹ with much interest. The use of appropriate allergy testing with the aim of accurate diagnosis is of particular importance in the setting of increasing incidence of allergic disease.^{2,3}

We recently audited the impact of atopy on the workload within our paediatric A&E department; 14 369 episodes from a one year period were analysed. Presentations assigned a diagnosis of asthma, eczema, urticaria, angioedema, anaphylaxis, food allergy, drug allergy, or hay fever were felt to be related to atopy. Children under the age of 4 who presented with wheeze associated with a concurrent respiratory tract infection were assigned a diagnosis of viral induced wheeze and not included within the atopy grouping. Of these presentations, 811 (5.6%) were assessed as relating to atopy (fig 1).

We also compared the percentage of admissions and medical follow up between allergic presentations to A&E and non-allergic presentations. Not only did allergic conditions form a significant proportion of

Figure 1 Percentage of allergic presentations with respect to total episodes.

Figure 2 Comparison of National Health Service utilisation for follow up.

the department's workload, but a statistically significant higher proportion of these patients required admission ($p < 0.001$), outpatient follow up ($p < 0.01$), and general practitioner follow up ($p < 0.001$) when compared with the non-allergic population (fig 2).

The change in the pattern of allergic presentations (the atopic march) across the paediatric age range was evident, with eczema and food allergies being more prevalent in infants and young children and asthma becoming more prevalent in older children. There is evidence that early diagnosis and treatment of atopic disease prevents progression of the allergic march.⁴⁻⁶

With the above in mind, the recommendations from Holgate and Lack to utilise specific allergy testing may be useful as a follow up in children presenting to A&E with disease thought to be secondary to atopy. The A&E setting could facilitate early allergic diagnosis, increase parental awareness, and potentially improve patient management.

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References

- 1 Holgate ST, Lack G. Improving the management of atopic disease. *Arch Dis Child* 2005;**90**:826–31.
- 2 Morrison DS, McLoone P. Changing patterns of hospital admission for asthma, 1981–97. *Thorax* 2001;**56**:687–90.
- 3 Burr ML, Butland BK, King S, *et al*. Changes in asthma prevalence: two surveys 15 years apart. *Arch Dis Child* 1989;**64**:1452–6.
- 4 Spergel JM, Paller AS. Atopic dermatitis and the atopic march. *J Allergy Clin Immunol* 2003;**112**:S118–27.

- 5 Boguniewicz M, Eichenfield LF, Hultsch T. Current management of atopic dermatitis and interruption of the atopic march. *J Allergy Clin Immunol* 2003;**112**:S140–50.
- 6 Warner JO. A double-blinded, randomized, placebo-controlled trial of cetirizine in preventing the onset of asthma in children with atopic dermatitis: 18 months' treatment and 18 months' post treatment follow-up. *J Allergy Clin Immunol* 2001;**108**:929–37.

Buccal midazolam: is a test dose in hospital needed?

Midazolam has been given via the buccal route for the acute management of prolonged seizures for some years. Buccal administration is preferable to the rectal route for parents and carers.¹ There is evidence that midazolam given in this way is more effective in curtailing seizures than diazepam and that there is no difference in the incidence of side effects.²

In some districts, including our own, if the family and the prescribing clinician want to use buccal midazolam the child is admitted as a day case to an acute paediatric ward for a "test dose". This has a number of disadvantages, particularly for children with autism or complex neurodisability:

- Inconvenience for families making the trip to hospital
- An extra day off school
- Staying the day in an unfamiliar environment
- The test dose is given to a conscious child and therefore does not mimic its use during a seizure; some consider this unethical
- Use of hard pressed acute care paediatric beds, nursing care, and medical time.

NICE guidelines³ mention buccal midazolam but do not suggest a test dose. A search of