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One or two?

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This month sees the publication of the BSACI guidelines on the prescription of adrenaline autoinjectors [1]. Given the pivotal role of intramuscular adrenaline in the allergist's formulary, this will prove to be a key document. The guidelines were developed by the BSACI's Standards of Care Committee and are evidence based, where data are available. They have also benefited from feedback from society's membership. The guidelines do not shy away from making recommendations as to who should be prescribed an adrenaline autoinjector, although they do acknowledge that this decision is not always clear cut. The guidelines also emphasize that prescription should only one part of a holistic and comprehensive anaphylaxis management plan. It is also good to see the robust response to the Medicines and Healthcare products Regulatory Agency 2014 advice on adrenaline autoinjectors (https://www.gov.uk/drug-safety-update/adrenaline-autoinjector-advice-for-patients, accessed 10 September 2016). The guidelines review the evidence that more than one autoinjector is required and concludes that two autoinjectors are only required in some circumstances. I am sure this will continue to be a hotly debated area.

The Scottish Intercollegiate Guidelines Network (SIGN)/British Thoracic Society (BTS) Asthma Guidelines has also been recently updated (https://www.brit-thoracic.org.uk/standards-of-care/guidelines/btssign-british-guideline-on-the-management-of-asthma/, accessed 28th September 2016) (potential conflict of interest alert: I am part of the asthma guidelines group!). As with the BSACI autoinjector guidelines, the draft guidelines underwent a consultation exercise which proved to be very helpful. The diagnosis chapter has had a major revision with a review of the current evidence and a new diagnostic algorithm; exhaled nitric oxide does feature but only as one of a number of potential investigations to provide objective evidence for the diagnosis of asthma. Perhaps the most controversial change is the loss of the treatment steps. The evidence for the different therapeutic approaches has been thoroughly reviewed leading to changes in the approach. For example in the new combined paediatric summary, there is a lower starting dose for inhaled corticosteroid and other preventers are introduced before inhaled corticosteroid is increased to medium doses. There are similar revisions for the adult approach. With these changes, the steps have been dropped to avoid generating confusion in the literature; labels such as 'Initial add-on therapy' are used instead. The feedback will be interesting, particularly as these guidelines are now used across the globe.

Guohua Zhen

In this issue of the *Journal*, Huo et al. [2] assess whether epithelial microRNAs (miRNAs) are involved in allergic airway inflammation by regulating the expression extracellular matrix protein and pro-inflammatory cytokines. miRNAs are small non-coding RNAs which bind to target genes to regulate their expression. Their expression has been reported to be altered in asthma and they have been implicated in allergic airway

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Caption to cover illustration: Summary of genes and associated miRNAs involved in the inflammatory immune response to sub-chronic inhalation exposure to *A. fumigatus*. [see figure 4 in T. L. Croston et al. (pp. 1315–1327)].

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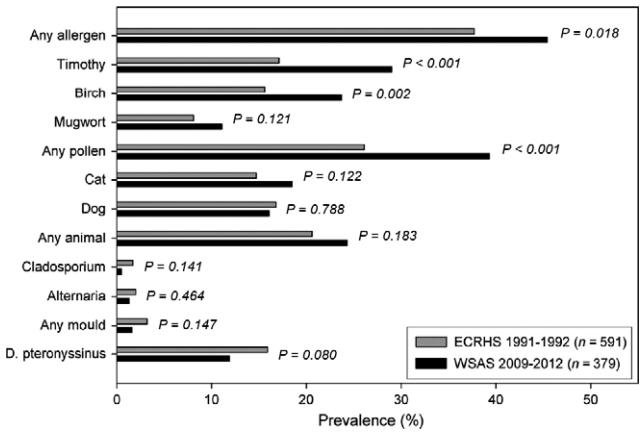

Fig. 1. Trends in allergic sensitization over time.

inflammation. As the authors predicted, epithelial miR-181b-5p expression was decreased in asthma, inversely correlated with sputum and bronchial submucosal eosinophilia. Plasma and epithelial levels were also correlated with plasma levels increasing after therapy with inhaled corticosteroids. So we have a new potential biomarker or even a potential therapeutic target.

Anders Bjerg

Bjerg et al. [3] have used objective data to examine trends and risk factors for allergy. They utilized data from the adult population-based European Community Respiratory Health Survey from 1991 to 1992 and West Sweden Asthma Study (WSAS) from 2009 to 2012. Dramatic increases were seen in the prevalence of positive skin prick tests and specific IgE to timothy and birch pollen, but not to other allergens (Fig. 1). Exposure to livestock or furred pets as children majorly decreased the risk of allergic sensitization. They suggest that increasing levels of environmental pollen may have driven these changes in sensitization and they may provide an explanation for the increased prevalence of rhinitis in this population.

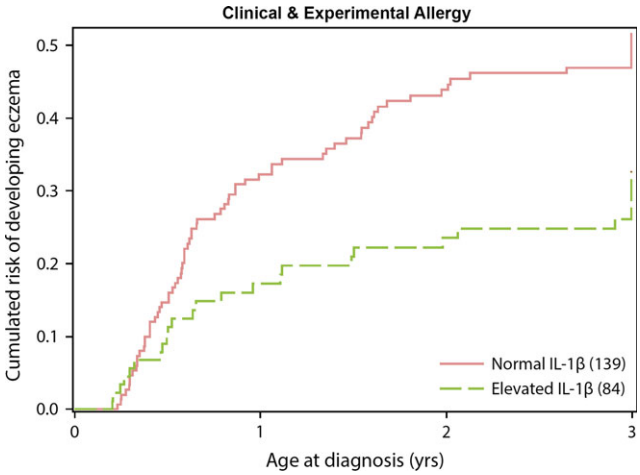

Fig. 2. Relationship between breast milk IL-1β and eczema.

Anna Jepsen

Jepsen et al. [4] present data suggesting that elevated maternal breast milk IL-1β is associated with decreased risk of early childhood eczema. Levels of cytokines and chemokines were assayed in breast milk samples from the Copenhagen Prospective Study on Asthma in Childhood 2000 high-risk birth cohort. They were compared with diagnoses of eczema and recurrent wheeze prospectively made up to 3 years of age (Fig. 2). There were no associations with recurrent wheeze. So it seems that the associations between breastfeeding and childhood eczema or recurrent wheeze is not simply explained by the presence of pro-inflammatory cytokines and chemokines in the breast milk.

I hope everyone enjoyed the BSACI annual meeting in Telford. To coincide with the meeting, we are running a *Clinical and Experimental Allergy* readers' survey. This is open until the end of October 2016 and can be accessed at http://bit.ly/ceasurvey. We would encourage all our readers to complete the survey and help us improve your *Journal*.

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3 Bjerg A, Ekerljung L, Eriksson J *et al.* Increase in pollen sensitization in Swedish adults and protective effect of keeping animals in childhood. *Clin Exp Allergy* 2016; **46**:1328–36.

4 Jepsen AA, Chawes BL, Carson CG *et al.* High breast milk IL-1β level is associated with reduced risk of childhood eczema. *Clin Exp Allergy* 2016; **46**:1344–54.