

Editorial

Community management of severe allergies must be integrated and comprehensive, and must consist of more than just epinephrine

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The spectre of exposure to food allergens is daunting for those who know from bitter personal experience or are told by doctors that they are at risk of a potentially fatal reaction. This fear is compounded by the knowledge that avoidance is difficult (1, 2) and that at present there is no treatment to cure food allergy. It is hoped that such treatments can be developed in the future, but, in the meantime, what can doctors offer to patients who fear for their lives or to parents who fear for the lives of their children?

It is not justifiable to have a blanket policy of epinephrine for everybody with food allergy, because many reactions are benign, and most children grow out of the most common food allergies in childhood: cow's milk and hen's egg (3). Most subjects who die of anaphylactic reactions to allergens have factors which should identify them as at risk, but some do not (4–6).

Different age groups appear to have different risks: for example, there has been no confirmed report of the death of a British child under the age of 13 years due to food allergy in the last 10 years (5). However, recent UK (5) and US studies (6) have shown again that adolescents and young adults continue to be the groups most at risk of fatal allergic reactions to foods. These two age groups need targeting with advice and treatment strategies that are understandable and nonstigmatizing, and that are emotionally accessible and acceptable to people for whom risk-taking behaviour and the ignoring of advice from figures of authority are features of developing independence. Allergists and other family-centred practitioners must ensure that a holistic and understandable strategy is agreed with families. The aims are to ensure safety without stifling independence with prescriptive advice delivered *ex cathedra*, and to promote rather than restrict the integration into peer groups and normal adult activities of individuals with severe allergies.

One might expect that avoidance of allergen exposure

should be easy and effective while preschool children remain under the close supervision of their parents and parental surrogates such as day-care staff and nursery teachers. However, previous work (7) and the paper by Moneret-Vautrin et al., in this issue of *Allergy* (8), show that most reactions in children, which are usually not fatal, occur in the home. A superficial analysis might infer that parents are obviously subject to human frailty and fail to maintain the standard of care that they expect others to give *in loco parentis*. A more sympathetic interpretation is simply that home is where children eat most of their meals (just as the fact that most of us die in bed is a reflection of the proportion of our lives spent in bed rather than bed being a dangerous place). In contrast, most fatal reactions to food occur after allergen exposure away from home, implying that the absence of an appropriate response strategy at least contributes to the disastrous outcome (4–6).

The transfer from home or preschool facilities to regular school is traumatic for parents, who anticipate that exposure will become more likely when they themselves are not constantly present. Data from other studies (9) and data reported in this issue (8) imply that the mere presence of an information pack and action plan decreases the incidence of allergen exposure at home and in school and day-care facilities. Moneret-Vautrin et al. report that a third of subjects with a personalized care project (PCP) or integrated care plan had an allergic reaction compared to five of six children without such a plan (8). It is important to note that eight out of 30 subjects considered high risk had allergic reactions but eight of 15 low-risk subjects also suffered a further allergic reaction. This high rate of reaction in those without a PCP in place forces us to reconsider the *prospective* assessment of risk and the withholding of PCPs, or their local equivalent, from those who are at low risk, based on *retrospective* assessments of previous

reactions. Peanut-allergic patients' symptoms can progress with successive reactions (1, 2), and there may be no such thing as a definitely low-risk peanut-allergic subject.

In Moneret-Vautrin et al.'s paper (8), one-third of reactions after introduction of care plans had identifiable causes, predictably dominated by accidental exposure to the known food allergen. Ten per cent of reactions were attributed to changed recipes of previously tolerated foods, and a further 10% were due to reactions to an unsuspected new food allergen. The cause of two-thirds of reactions could not be adequately classified. Taking this latter fact with the finding that 28 of the 40 reactions were isolated asthmatic reactions makes one wonder whether all the reactions were actually allergen induced, as isolated asthma is a relatively unusual response to exposure to a food allergen (10, 11). There may be a low appreciation in the community that most food-allergic subjects are also asthmatic and are "allowed" to have attacks of wheezing that are not attributable to their food allergy. Everyone likes to blame an adverse event on something, but in some episodes of wheezing food allergy may not be involved at all.

An important issue in Moneret-Vautrin et al.'s paper is why the PCPs "failed". Allergen exposure is a fact of life for food-allergic subjects, and the PCPs cannot be considered to have "failed" just because a child was exposed to an allergen. The PCPs appear to have benefited the majority of those equipped with them: 22/30 children did not suffer reactions during follow-up, whereas only one out of six subjects without a PCP avoided exposure to allergen. We are not told explicitly how many of the subjects had actually received epinephrine for previous reactions, but, after review, 30 of the 45 children were judged, by various criteria, to be at high risk of a severe reaction. During follow-up, after institution of the PCP, only one of 40 reactions required epinephrine treatment. Thus, the PCP may allow better hazard avoidance and early treatment with measures less invasive than IM epinephrine.

This interpretation exposes the fallacy that all rescue plans revolve around epinephrine administration (12). Epinephrine should be administered only in appropriate situations. The studies of Moneret-Vautrin et al. described here (8) and that of Ewan & Clark, from Cambridge (9), suggest that an integrated care plan can decrease the rate of re-exposure, and that most repeat reactions are relatively benign, not needing epinephrine administration.

It appears that many families and caregivers are not adequately confident in their information and training to execute the plan as prescribed (7, 13, 14). Children and adults at risk of severe reactions appear to be more at risk from epinephrine being withheld than they are from its being given unnecessarily (4–6). Children appear to be more resistant to the adverse effects of epinephrine, and it may be considered reasonable to tell parents: "If you think epinephrine, give epinephrine."

The increased prevalence of food allergy has meant an increase in the prescription of epinephrine rescue treatments. This has been considered excessive (12), but in the absence of any meaningful treatments, allergists have no choice but to ensure the safety of their patients even if the "number needed to treat" to prevent one case of fatal anaphylaxis is very high.

Epinephrine should be prescribed only as part of an integrated care plan backed up by written information and access to expert advice from a nurse or doctor. These care plans allow families to have a normal social life within the limits of allergen anticipation and allow children to become independent of their parents. Anybody who prescribes epinephrine without such a plan of training, support, and follow-up is doing patients and the medical profession a disservice.

Moneret-Vautrin et al.'s paper suggests that such plans are effective in reducing the already low risk of severe reactions in young children. Attention must now be given to the support of adolescents and young adults, repeatedly identified as the groups at highest risk of fatal reactions.

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