

Commentary

Reducing the risks for food allergic children in schools and preschools

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The role of schools and preschools in dealing with the risk of childhood food anaphylaxis is an important issue for medical and educational services. The prevalence of food allergy is such that the majority of schools will have at least one food allergic child enrolled.¹ Of 4536 registrants on a peanut allergy register, 16% reported suffering an allergic reaction at school or in day care.² In a case series of six fatal reactions to food in children and adolescents, four had occurred at school.³ Such observations indicate that school personnel need to be educated to recognize and treat food allergic reactions.² However, the prevention of food allergic reactions is notoriously difficult as highlighted by a study where 10 of 41 school-based reactions occurred despite modifications to the school environment to reduce exposure.⁴ It is generally accepted that teachers and childcarers have a duty of care *in loco parentis*, but how this should be implemented in the case of food allergic children has received little attention in the medical literature. Existing recommendations have elements in common such as the provision of personal medical information, staff training and procedures for managing reactions, but areas of uncertainty remain. These include the effectiveness of various responses, and more controversially, the relative responsibilities of teachers, parents and older children.

There have been at least four reports of school management strategies. Vickers described a comprehensive educational intervention in the United Kingdom, where trained educators provided a single school-based session to which all staff and parents were invited.⁵ At this session, information was given on food allergy, avoidance and recognition of reactions, and the procedure to follow if a reaction should occur. Information was reinforced through the use of written materials, practical demonstrations and open discussion. It was emphasized that 'with thoughtful prevention the chances of a child having a reaction which requires administration of an injection are very small.' Suggested strategies included care with food handling, especially during celebrations, modification of craft materials, observation of the child during meal times, and banning of peanuts, nuts and food sharing. The authors concluded that the intervention was beneficial, a principal outcome being reduction of anxiety amongst school staff. In contrast, while parents felt the sessions were helpful their anxieties were not necessarily resolved.⁵ Also in the UK, Morritt outlined an anaphylaxis management plan, instituted by a local education authority. Community paediatricians were notified of children who had

been prescribed adrenaline in order to facilitate training of schools.⁶ An education session was provided, again inviting parents and staff, and a management protocol designed in conjunction with the parents and school. The authors did not report any evaluation of this programme.

In France, government regulations enacted in 1999 recommend the creation of Personalized Care Projects (PCP) for all children with food allergy in schools.⁷ The PCP contains recommendations from the treating allergist, specifying foods to be avoided, signs of reactions and procedures for managing acute reactions. In this study, of 45 children for which PCPs were requested from the school health authorities, 39 were implemented. It was suggested that the plans were of benefit, as on follow-up only one third of children with PCPs had had subsequent reactions, in contrast to 5 of 6 without PCPs.

Considering the level of concern in schools and preschools, and the need for medical expertise in managing this issue, few guidelines or position statements have been available. In 1991 a report from the Adverse Reactions to Food Committee of the American Academy of Allergy and Immunology was published.⁸ This stressed antigen avoidance as the key to prevention and recommended that school nurses or teachers be trained in emergency treatment. A medication form which might be considered a precursor of today's Anaphylaxis Action Plan was included. Interestingly this form contained a statement to be signed by the parent releasing school personnel from liability should there be any adverse reactions from treatment. However, the legal validity of such a release is unclear. In 1993, a letter written by six prominent paediatric allergists and anaphylaxis researchers calling themselves an Ad Hoc Committee on Anaphylaxis in Schools was published.⁹ While describing themselves as members of the American Academy of Pediatrics, they stated that the letter constituted their opinions, not that of the Academy. An argument was presented for school-based interventions, with roles for school staff in documenting parental permission and doctor's information, providing ready access to adrenaline, and supervising medication use by students. The key issue that the administration of adrenaline by non-medical professionals was not legally permitted in the majority of US States was raised.

Subsequently in 1998 the American Academy of Allergy, Asthma & Immunology (AAAAI) published a still currently endorsed position statement *Anaphylaxis in School and Childcare settings*.¹⁰ This statement draws attention to public

awareness of increasing numbers of deaths from anaphylaxis and the importance of rapid recognition and treatment. It describes anaphylaxis as 'an unusual but preventable and treatable event' but also stresses the possibility of life-threatening reactions from 'minute' quantities of food. The responsibilities of school staff are unequivocally listed, which include identifying allergic children, ensuring the accessibility of adrenaline and recognizing and treating acute reactions. Allergen avoidance strategies, including the informed and careful reading of food labels by staff, no food sharing policy, washing of surfaces, consideration of craft, cooking and science materials, and hand washing are all described. The rights of food allergic children are invoked; parents should not bear the cost of alternative meals or sign liability waivers, and any refusal to treat children with adrenaline may constitute a violation of laws protecting disabled children, 'which include those with life-threatening food allergies'. This document is a strong advocacy statement for food allergic children in schools, firmly placing responsibility with the school and its staff.

In Australia there have been two State based policy documents related to childhood anaphylaxis in schools. The first, published in 1998, was a collaborative effort between the Department of Education Training and Employment and the Women's and Children's Hospital, Adelaide, resulting in a 27 page handbook *The Prevention, Recognition & Management of Anaphylaxis*. In New South Wales the NSW Department of Education and Training and the NSW Health jointly developed a 24 page document *Anaphylaxis – Guidelines for schools* which was released in December 2003 (<http://www.health.nsw.gov.au/pubs/a/pdf/anaphylaxis.pdf>). In addition to containing detailed information on the recognition and treatment of anaphylaxis, both include suggestions for strategies to prevent food allergic reactions in schools. The NSW policy differs somewhat from the American statement, sharing responsibilities between parents and the school, and calling for partnership and mutual agreement. Expectations are to be clarified, information exchanged, reasonable effort made to minimize exposure and an emergency plan developed. Strategies to reduce environmental exposure are given as examples, rather than as recommendations. While staff have a duty of care to act in emergencies, it is not over and above their capabilities or qualifications. It is clearly stated that legal liability for compensation is assumed by the education department as the employer.

The Guidelines for prevention of food anaphylactic reactions in schools, preschools and childcare centres from the Australasian Society of Clinical Immunology and Allergy (ASCIA) published in this issue are a further development.¹¹ Drawing on the available evidence, they explicitly acknowledge the difficulty of recommending unproven measures while noting the needs and pressures on the child, parents, teachers and childcarers. A significant advance is the recognition of age appropriate measures as an integral component of the recommendations; with increasing maturity there is an expectation that the child will be able to take some responsibility for avoiding reactions. The guidelines differentiate between schools and preschools in excluding allergenic foods such as peanuts from the environment. Blanket food bans are not recommended for schools as they are impractical, unproven, not generally recommended by experts or consumer organizations, and may prevent allergic children from learning how to avoid reactions. In preschools,

however, where transfer from one child to another is more likely, highly allergenic foods such as egg and peanut should be removed if there is a child at risk of anaphylaxis.

See related article, p 669.

Despite the widespread prevalence of food sensitization, particularly in preschool age children, and demand for avoidance and treatment strategies in preschools and schools, there has been relatively little guidance published by medical and health authorities on appropriate responses to the risk of childhood food anaphylaxis. This is due both to the lack of an evidence base supporting the adoption of particular strategies and to difficulties in quantifying the risks, which vary according to the child's age and the nature of the sensitization. Thus the present ASCIA guidelines are a welcome attempt to provide a considered and locally appropriate basis for responding to some of the medical, social and procedural issues concerning food allergic children in Australian schools and preschools.

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