



## EDITORIAL

## Are allergic children safe in our schools and school canteens?☆



### ¿Están seguros los niños alérgicos en nuestros colegios y comedores escolares?

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In Spain, based on data obtained from the Ministry of Education, in 2019 a total of 6 619 159 children were enrolled in preschool, primary education and compulsory secondary education, of who 30%–40% used school food services. As noted by the authors of the study published in the current issue of *Anales de Pediatría*,<sup>1</sup> there is no specific legislation at the national or autonomous community level regarding the meals provided in early childhood education centres, although there is a national law, Law 17/2011 of July 5 on Food Safety and Nutrition that established specific regulations for the school setting. Although the prevalence and incidence of food allergies in Spain have not been established with certainty, the incidence in the paediatric age group is estimated at 4%–5%, as specified in the review article and update on the epidemiology and clinical practice of paediatric allergy published in this same issue.<sup>2</sup> Based on the sources mentioned above, 100 000 children with allergies

used school food services. Severe anaphylactic reactions, while rare, may take place if the culprit food is consumed, and it is known that up to 20% of anaphylactic reactions happen in school, with the school lunchroom and the spaces used for extracurricular activities being the settings that carry the highest risk of exposure to allergens. Advances in the diagnosis of food allergies, especially in molecular diagnostic methods, have allowed more accurate identification of the children at highest risk of experiencing a severe allergic reaction in case of exposure to a food allergen.<sup>2</sup>

Anaphylaxis is a medical emergency, and fortunately most anaphylactic reactions resolve with adequate treatment, but regrettably there are instances, especially if the appropriate drug is not promptly administered, in which the outcome may be fatal. The potential severity of allergic reactions in the school setting has led the Paediatric Section of the European Academy of Allergy and Clinical Immunology (EAACI) to launch an initiative with recommendations aimed at the prevention and treatment of allergic reactions in school and to raise awareness of their importance in all stakeholders to create a safer school environment for children with allergies.<sup>3</sup> This document aims to provide general advice that then needs to be adapted to each school based on its resources. This guideline addresses the need to have staff (teaching staff or school nurses) trained on the manage-

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ment of acute allergic reactions and to provide trainings on allergy to this staff at regular intervals. The task force also emphasises the need to have legislation to make the school a safe environment for both children with allergies and the teaching staff. Ideally, all schools should have a health care worker on staff (school nurse) who would be in charge of providing urgent care to any child who needs it, in addition to implementing other school-based health education and promotion programmes, including tertiary prevention of allergic diseases. The school nurse role is gaining ground in Spain to provide direct, integral and individualised nursing care to the students, and this is the ideal person to manage allergy-related emergencies arising in classrooms and canteens. Since, regrettably, most Spanish schools continue to not have a nurse on site (the Valencian Community and Madrid are the autonomous communities with the highest proportion of schools with nurses on staff), the current objective is to ensure that schools have some personnel trained on how to recognise symptoms of a severe reaction and deliver treatment with adrenaline.

Making the school premises and canteen safe for children with food allergies depends on the collaboration of the different agents involved in the activity of the school and requires a legal framework that guarantees the rights of the child and also establishes the rights and duties of teachers and other school staff that may face a life-threatening emergency. The safe custody of medications in the school and their dispensation by an individual that is not qualified to deliver health care services are legal aspects currently subject to debate.

In Spain, different initiatives have been launched to tackle this issue by establishing emergency care protocols in schools with students with allergies. Andalusia and Galicia have pioneered these efforts, developing protocols that coordinate educational services and central emergency services through the AIRE and ALERTA ESCOLAR programmes, which have later been introduced in other autonomous communities like the Valencian Community and the Balearic Islands. In both programs, parents register children with allergies in the local emergency department registry. The school safely stores the medication provided by the child, and in an emergency, the school can contact the emergency department to receive directions from health care staff on how to act, including instructions on how to administer medication, until a medical team arrives at the scene. Other autonomous communities have implemented other, less comprehensive measures, such as Castilla y Leon, Murcia and Catalonia.

When it comes to school food services in particular, and as described in the article by San José-González<sup>1</sup> in the current issue of *Anales de Pediatría*, there are specific regulations regarding dietary accommodations for children with allergies in the Valencian Community and in Castilla y Leon, although the governments of other autonomous communities provide information to guide the management of these situations in their official websites. As concerns school food services, children with food allergies must follow a modified diet and require special care and vigilance in the meals given them in addition to alternative menus. A recent study reported that 5.24% of children using school food services required some form of modification to their diet on account of a food allergy in the 2009–2013 period, with an increasing

**Table 1** Needs of students with food allergy.

A safe school environment that does not exclude or stigmatise the student
Schools must have staff trained on the identification and treatment of allergic reactions
The figure of the school nurse offers the ideal profile to manage allergic reactions and promote health in the school setting
A legal framework guaranteeing the rights of students with allergies and protecting school personnel
Coordination of school, family, health care providers and patient associations

trend in the proportion of children requiring such modifications during that period.<sup>4</sup>

The Ministry of Health, Social Services and Equality of Spain and the regional Departments of Education and of Health of the autonomous communities have developed a consensus document with a series of recommendations to pursue safety and equality in the schooling of children that may have allergic reactions to foods and/or latex.<sup>5</sup> In general, these programmes and documents include measures that require the involvement of every agent that participates in the care of children with allergies. Families need to provide the medical information of the child in the form of an official medical report specifying the type of allergy the child has and the reactions it can cause, in addition to giving the school the necessary rescue medication accompanied by a document detailing the food allergy and anaphylaxis emergency care plan developed by the allergist. On their part, schools must keep a list of all enrolled students that have allergies and distribute it to the entire teaching staff along with information on the prevention and management protocol that may be applied in cases of allergy. Accredited training programmes must be developed to educate the staff in charge of children with allergies in schools. Health care professionals must support health education and allergy education interventions for the school community and provide accessible information and feasible action plans.

On the other hand, we cannot neglect the association between food allergies and episodes of school bullying. Children with food allergies are twice as likely to suffer bullying compared to children without them. Some studies have found that up to 32% of children with food allergies have experienced school bullying in relation to their allergy, with a higher frequency in adolescents,<sup>6</sup> resulting in severe impairment of their quality of life.

Paediatricians in general and paediatric allergists in particular must play an essential role to guarantee the safety of children with food allergies, helping them stay physically and emotionally healthy. We must recognise that bullying is a serious problem and act without delay.

Increasing the safety of students with allergies in the school setting is an objective that will require the collaboration of all involved parties: the educational community, families, physicians and nurses, patient associations, and the legislative and executive branches of government (Table 1).

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## Conflicts of interest

The authors have no conflicts of interest to declare.

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