



BENEDICT BLYTHE
FOUNDATION

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**Keeping children with food
allergies safe in our schools
— Time for urgent action:
Supporting evidence**

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Protecting children with ALLERGIES

Children with allergies deserve to attend school knowing that the staff have the right processes, knowledge and education, and equipment in place to protect them. That's why Benedict Blythe Foundation in collaboration with charities and experts is asking for new legislation to be implemented to support the following ask:

- Making it mandatory for all schools:
 - 1) To have an allergy policy, including an anaphylaxis plan
 - 2) For pupils with food allergies, an IHP and anaphylaxis action plan completed (and regularly updated) collaboratively by the child, parents/carers and school staff
- 3) To hold spare AAIs that are in-date
- 4) To implement training for school staff and teachers on allergies and anaphylaxis and a whole school allergy awareness approach
- Government funding for the additional cost to schools for AAIs and training
- DfE/FSA commissioned research into the effectiveness of approaches and interventions to optimise the preparedness of schools for preventing allergic reactions and managing anaphylaxis
- Adherence to these measures to be checked as part of schools' assessments by Ofsted



FOREWORDS

In December 2021, my son Benedict collapsed at school and died from anaphylaxis aged 5. Following our devastating experience, and the loss of our beloved son, my husband and I founded the Benedict Blythe Foundation. One of the Foundation's core aims is to improve the protection for children with allergies in schools.

This paper brings to life the prevalence and seriousness of allergies in school-aged children, and the devastating consequences when things go wrong at school. We recognise the care teachers and school staff have for the pupils they look after, but also the pressures on them to do ever more for their children with finite resources.

We have heard time and again from parents and carers who have experienced 'near misses', where their children have narrowly avoided allergic reactions or where they've been serious but not fatal. They speak of their fear in handing their children over to schools, and not trusting the staff to have the right knowledge and processes to keep them safe. Parents and carers also describe their children feeling isolated because of their allergies, or being unable to access free school meals.

Through the recommendations outlined in this paper, we intend to lead the ask for legislation to provide protection for pupils with allergies through mandatory allergy and anaphylaxis training, statutory allergy policies, and individual healthcare plans for all children with allergies as well as spare pens in every school.

We hope that no other parents experience the death of a child through anaphylaxis while at school, and welcome the support of national charities including Allergy UK and Anaphylaxis UK to reduce the risk of this happening.

Helen Blythe, mother of Benedict Blythe and Founder, Benedict Blythe Foundation

In my clinic, whilst I often hear fantastic stories of truly inclusive school activities, where there has been real thought and solid planning to ensure that children with food allergies get the best out of their school experience, this remains far from a universal experience.

As around 20% of allergic reaction happen in a school setting, a lack of proper understanding or robust policies means that for many children, school can be a place where food allergy bullying and constant worry become real barriers to the positive experience it should be.

Sadly, these issues have also been raised in the coroner's court where inquests into fatal anaphylaxis at school recurrently highlight the inadequacy of school policies – where food allergy is simply not understood, where adrenaline pens are left to expire and there is no clarity about how to respond to emergency situations. This is not acceptable and this document highlights the key areas where change is required.

As a practicing clinician, who spends much of my time hearing directly from families affected by food allergy, I wholeheartedly support the recommendations of this report and look forward to seeing them implemented so that my patients get the education they deserve, free from the unnecessary dangers and anxiety that the current failures present for them.

Prof Adam Fox, Trustee and Past President of BSACI

I remember the call very clearly, the head of the pre-school which had offered my son a place was ringing to tell me that they had changed their minds. I had told them about his food allergies, and they felt the responsibility for keeping him safe was too great. Their rejection spoke to my worst fears, that no school would be able to look after him and support him to embrace the ups and downs of the classroom just like any other child.

The responses of other schools compounded my concerns: some thought I would be reassured that a handful of staff knew how to use an EpiPen, others dismissed allergies as their caterers' problem. I asked myself how understanding in some schools could be so woeful; allergic disease is the most common chronic medical condition in childhood with 1 or 2 children in every class living with a food allergy. Yet the very places entrusted to look after our children, often lacked basic knowledge that could save a child's life.

I knew I had to act. I founded The Allergy Team to support other families like mine and used my skills as a former TV producer to develop a video-based course for school staff. Drawing on real-life experiences and backed by clinicians, it teaches the life-saving basics, as well as demonstrating how small, practical changes can improve the mental health and wellbeing of pupils with food allergies.

While statistical data on allergy training in schools is scarce, stories of poor management, near-misses and reactions on school premises are in abundance. This has to change. Benedict's legacy must be safer schools for children with food allergies.

Sarah Knight, mother of two children with food allergies and Founder of The Allergy Team

Lessons learnt from fatal anaphylaxis cases in school highlight the importance of allergy policies and procedures, allergy training of all staff and whole school allergy awareness.

Anaphylaxis UK's Safer Schools Programme includes online training for all school staff, allergy awareness resources to share with pupils, and best practice resources, such as a template model allergy policy, to support schools to safely manage children with serious allergies.

Anaphylaxis UK encourages schools to have robust allergy management systems in place and for all staff and pupils to have an understanding of allergies, to be able to recognise the signs of a serious allergic reaction and to know what to do in an emergency. Whole school allergy awareness, involving the education of all staff and pupils, is the safest way to manage children with allergies.

Simon Williams, CEO, Anaphylaxis UK

FOREWORDS

The statistics on allergy in children should serve as a stark wake-up call for anyone who plays a role in safeguarding and caring for children.

The profound impact of living with an allergy for a child should not be underestimated. Andrew Slaughter, MP for Fulham and Hammersmith articulated the extent of this impact in a recent parliamentary debate on allergy when he said, 'The very real & ever-present risk of death... is a real and ongoing trauma to families and parents of...children who have an allergy condition. We shouldn't underestimate the distress & anxiety this can cause a child.' Findings from research conducted by Allergy UK in 2021 echo this: 61% of children with food allergies have avoided social situations because of their allergy; 53% of children with food allergies feel isolated due to how much their allergies affect their life and 32% of children surveyed reported bullying due to allergy at least once.

Children have to go to school. Parents of children with allergies have no choice but to entrust their child to educators. In the words of a mother whose son is soon to enter reception class, the fear of sending her child to school can be all consuming "I live life now on high alert. We are looking at schools in this coming September. We will go in and look around a school and ask about education but I'm also asking how you're going to keep my child safe?"

At Allergy UK, we regularly receive calls to our helpline from parents expressing desperate concern that their school may not be adequately prepared for an emergency allergic reaction such as anaphylactic shock. We also take a high volume of calls detailing experiences which highlight a fundamental inconsistency in schools' management of pupils with allergy; from worries about changing staff to the variance among teachers in their knowledge and understanding of allergy. There is apprehension around the way their children can be identified and sometimes isolated. This is in addition to a fear around the storage of AAIs and their management.

We know from focus groups with the teaching community that educators share concerns on their readiness to manage allergy too. Teachers have told us they are often unaware of the number of pupils in their classrooms with a condition requiring an AAI. Many have received no training around allergy.

At Allergy UK we believe there is no more time to lose on improving the consistency in safety and care extended to children living with allergies in a school environment.

Simone Miles, Interim CEO, Allergy UK



I N T R O D U C T I O N

Food allergy is a potentially life-threatening immunological response that occurs reproducibly upon ingestion of the allergen (Santos *et al.*, 2022). Food allergy has the potential to precipitate a severe allergic reaction, called anaphylaxis, that can be fatal. It involves multiple organ systems and requires an emergency response. Symptoms commonly include difficulty breathing, effects on the heart rhythm or blood pressure, referred to as the ABC (airway, breathing, circulation) symptoms.

Anaphylaxis is treated with adrenaline (also known as epinephrine), usually administered intramuscularly using an adrenaline auto-injector (AAI) device. Current guidance from the Medicines and Healthcare Products Regulatory Agency (MHRA)(2014) is that anyone prescribed an AAI should carry two of the devices at all times. This is important in case one misfires, or a second dose is needed. Around 30% of allergic reactions in schools occur in children previously not known to have a food allergy or those with an allergy that had not been communicated to school staff (Santos *et al.*, 2022).

In the UK, The Food Standards Agency (2022) lists 14 major food allergens, which must be highlighted in ingredients labels. Reactions to some of these foods are very rare. Indeed, in the USA, the FDA's Food Allergen Labelling and Consumer Protection Act, identifies eight foods as major food allergens: milk, eggs, fish, crustacean shellfish, tree nuts, wheat, peanuts, and soybeans. Since 1st Jan 2023, a new Bill has resulted in a ninth major allergen being added to the list. Thus, sesame seeds or its derivatives must now be explicitly labelled in the US. This has given rise to the Big-9.

The profile of allergens in children varies slightly from that of adults, with nuts (peanuts and tree nuts), milk, eggs, and sesame accounting for the majority of the allergic reactions in children (Ramesh, 2008). Moreover, recently evidence is emerging suggesting legume (pea, chickpea, lentil and lupine) allergies are increasing in children, with many children having multiple legume allergies (Cosyns *et al.*, 2022).

Image by Nestlé Nutrition Institute, 2023



F O O D A L L E R G Y

anaphylaxis, prevalence & trends in school children

Food allergy affects around 7.0–8.0% of children worldwide or about two children in an average-sized classroom of 25 children (Santos *et al.*, 2022). Children spend at least 20% of their waking hours in school. Thus, not surprisingly, data show that 18% of food allergy reactions and 25% of first-time anaphylactic reactions occur at school (Higgs *et al.*, 2021). Moreover, anaphylaxis due to food allergy occurs in schools more than in any other setting (Muraro *et al.*, 2014). Food-related anaphylaxis has increased considerably over the past 20 years, particularly in younger children (0 to 4 years).

According to a review of data by the European Anaphylaxis Regis, of the three and a half thousand cases of food-induced anaphylaxis reported over the 10-year period up to 2018, 56% of individuals were under 18 years of age; of these around 24% of reactions were attributed to peanuts and 18% to cow's milk (Newman *et al.*, 2022; Maris *et al.*, 2021).

Meanwhile, a review by Conrado *et al.* (2021), which analysed data on rates of admissions to UK hospitals for food anaphylaxis from 1998 to 2018 reported worrying results. There was a steady increase in the number of food-induced anaphylaxis admissions, on average showing

an increase of 5.7% year on year. The largest increase was observed in children younger than 15 years. Over this period, a total of 66 fatal events recorded in school aged children were attributed to food-induced anaphylaxis. Peanut was the most frequent cause, followed by cow's milk. Adolescents and young people with a food allergy are the age group with the highest frequency of fatality arising from anaphylaxis (Pumphrey, 2000). Notably, those with pre-existing asthma are at greater risk of poorer outcomes (National Institute for Health and Care Excellence, 2011).

Although fatal anaphylaxis to food is rare, non-fatal, severe reactions in children and adolescents are much more common, but are still traumatic and deeply unpleasant for all involved (Turner *et al.*, 2016). Furthermore, the constant vigilance needed to avoid exposure to the allergen and a heightened awareness of the unpredictability of life-threatening food-anaphylaxis, often precipitates stress and anxiety. Consequently, the burden of food allergy can reduce the quality of life of the children and adolescents and have a significant psychological impact on the whole family (Warren *et al.*, 2016).

What is unequivocal is that the increasing prevalence of food-allergies in children and adolescents is a worrying public health problem.

'Living with anaphylaxis is to live with permanent and unpredictable fear. Handing over your child's care to someone else for the first time is terrifying'
- Lynsey, mum of Harvey aged 6

Policy, legislation and

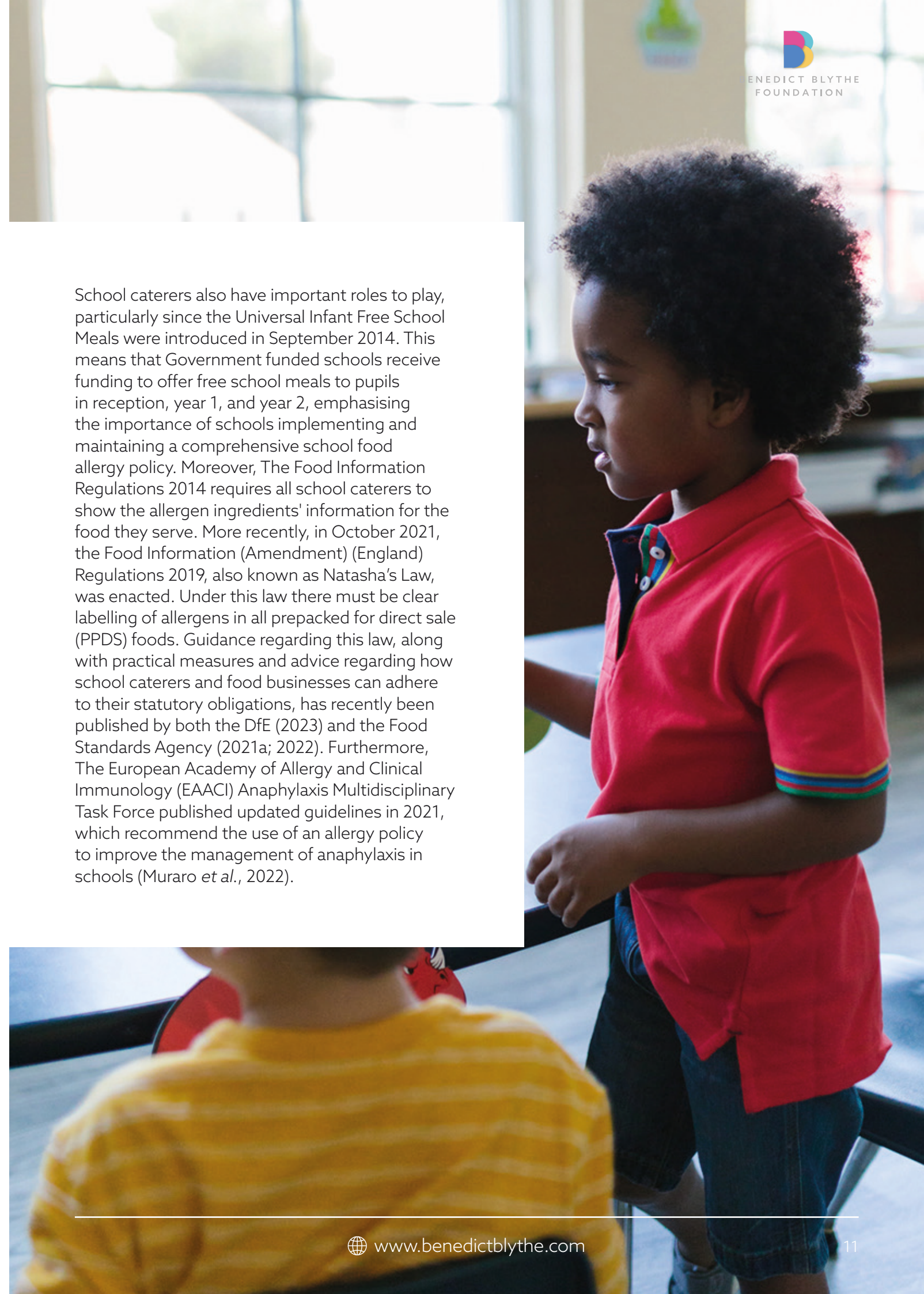
GUIDANCE

Section 100 of The Children and Families Act 2014 places a statutory duty on governing bodies of maintained schools, academies, and pupil referral units to make arrangements to support pupils with medical conditions. In addition, Local Authorities and schools have duties relating to the making of arrangements to safeguard and promote the welfare of pupils, under sections 175 of the Education Act 2002 and Regulation 3 and Paragraph 7 of the Schedule to the Education (Independent School Standards) Regulations 2014.

Guidance from the Department for Education aimed at early years settings, published in 2021, sets out standards for learning, development and care (Department for Education, 2021). The Early Years Foundation Stage (EYFS) framework refers to food allergies in two sections. Section 3.48 mandates that before a child is admitted to the setting providers must obtain information about any special dietary requirements, preferences, and food allergies that the child has (Department for Education, 2021). Meanwhile, Section 3.49 signposts to further guidance, "Example menus for early years settings in England" (HM Government, 2017), which covers the management of food allergies by catering staff. It highlights the need for extreme vigilance, since products can be reformulated, different brands may contain different allergens, and children can have allergies to ingredients not covered by labelling requirements. The EYFS framework also requires policy and procedures for administering medicines and for staff training including effective Paediatric First Aid training, covering how to manage a baby or child who is suffering from anaphylactic shock.

In 2017, The Department for Education published supporting guidance for schools, outlining the steps they should take to support any pupil with medical conditions and keep them safe (Department for Education, 2017). A key aspect of the guidance is to develop, implement and regularly review a medical support policy. Contained therein, should be details regarding the development of individual healthcare plans (IHPs) for pupils with medical condition, along with clear roles and responsibilities of those supporting them. The DfE states that these supporting individuals "should have received suitable training." Additionally, the policy should describe record keeping, emergency procedures and managing medicines on school premises. The proposed process for developing IHPs is shown in Annex A. The DfE guidance also suggests children prescribed AAI should have two devices with them at school. However, it is now recognised that delays in administering adrenaline arising from problems accessing the child's AAI device can lead to fatalities. Accordingly, since 2017, new legislation under the Human Medicines (Amendment) Regulations 2017 allows schools to buy two of their own AAI devices, without a prescription. However, guidance explains that these can only be used in an emergency and when the child's own device is unavailable (Department of Health, 2017). Notably, none of the guidance described here is mandatory.

School caterers also have important roles to play, particularly since the Universal Infant Free School Meals were introduced in September 2014. This means that Government funded schools receive funding to offer free school meals to pupils in reception, year 1, and year 2, emphasising the importance of schools implementing and maintaining a comprehensive school food allergy policy. Moreover, The Food Information Regulations 2014 requires all school caterers to show the allergen ingredients' information for the food they serve. More recently, in October 2021, the Food Information (Amendment) (England) Regulations 2019, also known as Natasha's Law, was enacted. Under this law there must be clear labelling of allergens in all prepacked for direct sale (PPDS) foods. Guidance regarding this law, along with practical measures and advice regarding how school caterers and food businesses can adhere to their statutory obligations, has recently been published by both the DfE (2023) and the Food Standards Agency (2021a; 2022). Furthermore, The European Academy of Allergy and Clinical Immunology (EAACI) Anaphylaxis Multidisciplinary Task Force published updated guidelines in 2021, which recommend the use of an allergy policy to improve the management of anaphylaxis in schools (Muraro *et al.*, 2022).



Schools' preparedness for managing

A N A P H Y L A X I S

In 2016 and 2017, three food-allergy related deaths occurred in schools: a 9-year-old boy died from anaphylaxis due to an undetermined allergen, a 14-year-old and 13-year-old boy, both with dairy allergies, died after suffering allergic reactions to school dinner and physical contact with a piece of cheese, respectively. Inquests identified key contributions included a lack of adequate staff training resulting in delayed and incorrect administration of adrenaline, along with policy implementation issues relating to AAls being out of date and not readily available. Although schools can now keep their own emergency supply of AAls, this is not mandatory.

The DfE's generic guidelines for schools regarding supporting pupils with medical conditions lack specific, detailed information regarding life-threatening allergies, such as food allergies, which can lead to anaphylaxis. In addition, standard allergy policies, such as those supplied by Local Authorities, may lack school-specific practical solutions necessary for effective implementation. Since there is no legislation imposing adherence of schools to the DfE's guidelines, the onus is on individual schools to formulate and implement their own allergy or medical support policy. This lack of universal standardisation of school allergy policies is surprising given the fact that around a quarter of

food allergic reactions in children occur at school, with some resulting in fatalities from anaphylaxis (Raptis *et al.*, 2020).

Charities are now calling for urgent action to keep children with food allergies safe in school, with Allergy UK, Anaphylaxis UK and other organisations working together on new recommendations and interventions to help better manage allergies in schools and keep pupils safe. 'The Model Policy for Allergy Management at School' guide was published in 2021. It was designed in consultation with parents and teachers to support schools to develop a 'Gold Standard' policy to manage children's allergies safely, so that children and their parents feel reassured that a robust policy is in place. Version 1 is currently under review. In addition, the "spare pens in school" (2023) website has been set-up to support schools, parents, pupils/students and healthcare professionals in implementing the guidance to support children with food allergies in schools, and, where appropriate, the use of emergency "spare" AAls. Several different brands of AAI exist. EpiPens cost upwards of £50 each and EpiPen® Junior has a maximum shelf-life of 19 months.

No Government funding is available to subsidise these purchases, nor to help train school staff regarding the administration of adrenaline. Indeed, writing in the medical journal *Clinical and Experimental Allergy* in 2019, two leading UK allergy specialists, Paul Turner and Adam Fox, reported that most schools had not taken up the opportunity to obtain spare AAls and the level of staff training was well below what is considered acceptable (Turner *et al.*, 2020).

Grave concerns are also evident in the community. In 2019, a petition by worried parents was presented to the Government, suggesting the provision of allergy management in schools was "haphazard and inconsistent" and putting the lives of vulnerable children at risk every day (UK Government, 2019). The petition highlighted "a general lack of awareness and education with regards to allergy care in schools" and called for legislation to be passed to make an Allergy Care Policy statutory for every school and to establish appropriate standards of medical training, education and care for children with anaphylaxis. The petition gained over 10 000 signatures, many from Government officials, but it was closed early due to the General Election. In their response, the Government contends that current legislation and statutory guidance is sufficient. Sadly, this is not supported by research evidence. Indeed, there is a dearth of formal research in the UK investigating preparedness of schools for managing anaphylaxis, however, the small amount that does exist is alarming. For example, a survey of 157 primary schools in Cumbria (with a total of >24 thousand pupils and 165 pupils with a history of anaphylaxis) found that around a quarter had no management protocol for emergency treatment of a severe allergic reaction. Additionally, only 47% of respondents reported feeling confident with managing anaphylaxis, and 81% believed further training was needed (Raptis *et al.*, 2020). On a related note, school nurses can bridge the gap between health and education, however, cuts in Government funding have led to many councils decommissioning the service. The fact that parts of Cumbria have decommissioned the whole school nurse service may have contributed to these findings.



STAFF TRAINING

National and international guidelines all contend that schools should implement staff training in the prevention, recognition, and treatment of allergic reactions to food. However, the extent and quality of research evidence supporting the recommendations remains low. Most of the research evidence comes from the USA and Europe (Waserman *et al.*, 2021; Santos *et al.*, 2022). Two studies have been conducted in UK schools that investigate staff training and education. A follow-up study by Raptis and colleagues (2021) in 18 of the schools in Cumbria described above investigated the impact of a face-to-face training intervention on food allergy preparedness. Findings indicated that training enhanced staff's preparedness in managing pupils with food allergy. In addition, training promoted policy review, the introduction of allergy awareness sessions to help pupils manage their allergies and a no food sharing policy to prevent accidental exposure to food allergens.

Meanwhile, other researchers have developed a whole school allergy awareness toolkit for UK secondary schools, which was piloted in two schools in London and South-West England. The findings were positive and the toolkit, which is now freely available, was found to help raise awareness in pupils both with and without allergies and to empower those with

allergies to better self-manage their conditions (Higgs *et al.*, 2021). The researchers suggest training staff in emergency AAI administration alone is insufficient and a whole-school approach to training and education is necessary to reduce risk of reactions and foster a more accepting societal attitude. There are other resources which schools can use to increase staff's knowledge and skills in this area, for example, AllergyWise®, by Anaphylaxis UK, offers a wide range of tailored courses for individuals, schools and professionals.



CATERING

and protecting children with food allergies

As described previously, schools have a legal obligation to take steps to protect at risk children from exposure to allergens. It could be argued that the only effective strategy to minimise the likelihood of a reaction to food allergens is avoidance through implementing a site-wide food prohibition (e.g. "nut-free" schools) or introduce segregation such as allergen-restricted zones (e.g. "milk-free" tables). However, it would be difficult to enforce blanket bans and, under normal circumstances, is not a risk-free solution. Not only would it provide a false sense of security for the food allergic pupil/student, but it could be considered exclusionary, isolating children and adolescents, and denying them opportunities to fully participate in school events/activities. Moreover, evidenced-based guidelines developed by an international panel of experts, and aimed at policy makers in childcare settings and schools, do not recommend a blanket ban, not just because of cost, feasibility and acceptability implications, but also because banning all 14 major food allergens would inhibit the provision of a healthy, balanced lunch (Waserman *et al.*, 2021).

Catering staff in schools have a huge role to play in keeping children with food allergies safe. Their responsibilities in this regard must be outlined in the Food Allergies Policy designed by the school and based on Government guidance and legislation (as described previously). For instance, caterers must provide the correct allergen information about ingredients contained in the food and drinks they serve to pupils. They must also be aware of all individual pupil allergies and dietary requirements during menu planning and food preparation.

Regarding the sale of food stuffs in schools that are not made by the school, such as home-made cakes or other items at school events, there is no legal requirement to adhere to Natasha's Law as it only applies to registered food businesses. Nonetheless, the school has a responsibility to ensure all food provided onsite is safe (Food Standards Agency, 2021b). This can be achieved through a school allergen policy, which is made available to everyone, and which specifies requirements of home-baked food. An example of allergy information could be, "Please provide written information about allergens in writing, so that customers can make safe choices, particularly those with allergies – an ingredient label/note with each cake/box biscuits or cooked item would be appreciated e.g. gluten (wheat, oats, other cereals), dairy, nuts, soya." Alternatively, if allergy information is unavailable, schools should provide appropriate signage to highlight the possible dangers of the food stuff containing nuts or other allergens.

'As a teacher, responsibility for the safety of the children in our care is paramount. It is frightening for us too. School staff are often ill-equipped and unprepared to support children and families who live with allergies'
- Lynsey, Primary School Teacher

L A W S

and policies outside the UK

Several years of lobbying for mandatory adherence to statutory guidance by concerned parents and experts in paediatric allergies, alongside campaigns by Anaphylaxis UK, Allergy UK and other charitable institutions have failed to gain traction in Westminster. In contrast, Governments and policy makers in other countries have listened to experts in the field and the food allergy community as well as commissioning and acting upon research evidence. Rather than putting the onus on

professionals to follow guidance, Canada and several states in the USA have passed laws to better protect pupils and students who have food allergies. By raising awareness and ensuring all stakeholders have the necessary knowledge of food allergies and skills for optimal anaphylaxis management, these laws have improved school preparedness so that children with food allergies are better protected whilst at school or day-care. The table below shows some of the food allergy laws in these countries.



The Law	The Inspiration	Passed/Country
Elijah's Law requires the education and training of New York day care employees in recognising anaphylaxis and in the proper administration of epinephrine.	Elijah Silvera, a 3-year-old with a known dairy allergy, passed away after being fed grilled cheese at a day care.	September 2019/ New York, USA
Bills 56005A/A7635A allow a school bus driver to administer an epinephrine auto-injector to a student having an allergic reaction	Bill 56005A was sponsored by Senator Terrence Murphy, a food allergy dad who wanted to prevent more deaths like that of a Michigan student who passed away after a reaction on a school bus in 2015. Food allergy mum and attorney Stacey Saiontz advocated fiercely for the passing of all of these laws.	August 2017, October 2014, May 2013/New York, USA
The Student Medication Carry act allows New York students to self-carry and administer epinephrine auto-injectors at school.		
The Nurse Authorized Stock Epinephrine Act authorizes New York schools to stock epinephrine auto-injectors that may be used by the school nurse or designated staff on any student suffering a reaction, whether or not they have a prescription.		
Bills A.759-A/S.4867 provide teachers with free training on epinephrine auto-injector use and also extends the New York Good Samaritan Law to include teachers using an auto-injector on a child having an allergic reaction.		
House Bills 4352 and 4353 laws place epinephrine auto-injectors in schools for use on any student suffering an allergic reaction and requires staff training.	Founder of No Nuts Mum Group Lisa Rutter advocated for this law to protect children like her son Evan, who has severe allergies.	December 2013/ Michigan USA
Amarria's law requires Virginia public schools to stock epinephrine auto-injectors for use on any child having a severe allergic reaction by a school nurse or any employee. It also protects school employees from liability for civil damages if acting in good faith and requires training on the devices.	Amarria Johnson was a seven-year-old who passed away after eating a peanut during recess at school.	April 2012/ Virginia USA
SB09-226 requires each Colorado state public or charter school to create a plan for the management of food allergies and allows for the training of staff in epinephrine auto-injector use.	Food allergy parents Robert and Nicole Smith educated and advocated tirelessly to protect children like their son Morgan, who has multiple food allergies.	May 2009/ Colorado, USA
Sabrina's Law (the first of its kind) requires Canadian public schools to create and execute anaphylaxis plans that reduce exposure to allergens and communicate with parents, students, and staff about allergies. It also requires allergy and epinephrine auto-injector training for teachers and staff and it requires individual plans be created for each high risk student.	Sabrina Shannon passed away after accidentally ingesting dairy in a school cafeteria lunch.	January 2006/ Canada
House Bill 4518 requires ambulances to carry epinephrine	Food allergy mum and legislative policy analyst, Nona Narvaez, lobbied for these laws.	2002, 2004, 2013
Epinephrine Accessibility in MN Schools law ensures Minnesota students have access to epinephrine & individual health plans to keep allergic students safe.		
Stock Epinephrine in MN Schools law allows schools to stock epinephrine on any student in an emergency.		
The Allison Rose Suhy Act incentivises Ohio schools to train staff and students on food allergies by qualifying teachers to receive continuing education. It also requires the Ohio Department of Education to create a list of organisations offering free stock epinephrine for schools.	Named after Allison Rose Suhy, who suffered a fatal reaction to a doughnut containing nuts at age 18.	2021/Ohio, USA

RECOMMENDATIONS

Based on the evidence presented in this review further action is urgently needed to keep children with food allergies safe in UK schools. To achieve this, it is recommended that the UK Government introduce legislation similar to Sabrina's Law in Canada and Amarria's law in the USA, whereby pupils with allergies in the UK are provided legal protection in schools. This should include:

- Making it mandatory for all schools:
 - 1) To have an allergy policy, including an anaphylaxis plan
 - 2) For pupils with food allergies, an IHP and anaphylaxis action plan completed (and regularly updated) collaboratively by the child, parents/carers and school staff
- 3) To hold spare AAls that are in-date
- 4) To implement training for school staff and teachers on allergies and anaphylaxis and a whole school allergy awareness approach
 - Government funding for the additional cost to schools for AAls and training
 - DfE/FSA commissioned research into the effectiveness of approaches and interventions to optimise the preparedness of schools for preventing allergic reactions and managing anaphylaxis
 - Adherence to these measures to be checked as part of schools' assessments by Ofsted

REFERENCES

- Conrado, A.B., Ierodiakonou, D., Gowland, M.H., Boyle, R.J., Turner, P.J. (2021) Food anaphylaxis in the United Kingdom: analysis of national data, 1998-2018. *BMJ*. **372**, n251.
- Cosyns, J.C.E., Frykas, T.L.M., Hildebrand, H.V., Kim, H., Gerdts, J.D., Abrams, E.M., Protudjer, J.L.P. (2022) Peanut, soy, and emerging legume allergy in Canada. *Journal of Allergy and Clinical Immunology: Global*. **1**(4), 319-321.
- Department for Education (2023) *Guidance: Allergy guidance for schools*.
- Department for Education (2021) *Statutory framework for the early years foundation stage*.
- Department for Education (2017) Supporting pupils with medical conditions at school. *GOV.UK*. [online]. Available from: <https://www.gov.uk/government/publications/supporting-pupils-at-school-with-medical-conditions--3> [Accessed February 23, 2023].
- Department of Health (2017) *Guidance on the use of adrenaline auto-injectors in schools*.
- Food Standards Agency (2022) *Allergen guidance for food businesses*.
- Food Standards Agency (2021a) *Introduction to allergen labelling for PPDS food*.
- Food Standards Agency (2021b) *Providing food at community and charity events*.
- Higgs, J., Styles, K., Bowyer, S., Warner, A., Dunn Galvin, A. (2021) Dissemination of EAACI food allergy guidelines using a flexible, practical, whole school allergy awareness toolkit. *Allergy*. **76**(11), 3479-3488.
- HM Government (2017) *Example menus for early years settings in England. Part 1: Guidance*.
- Maris, I., Dölle-Bierke, S., Renaudin, J.-M., Lange, L., Koehli, A., Spindler, T., Hourihane, J., Scherer, K., Nemat, K., Kemen, C., Neustädter, I., Vogelberg, C., Reese, T., Yildiz, I., Szepefalusi, Z., Ott, H., Straube, H., Papadopoulos, N.G., Hämmerling, S., Staden, U., Polz, M., Mustakov, T., Cichocka-Jaros, E., Cocco, R., Fiocchi, A.G., Fernandez-Rivas, M., Worm, M., Anaphylaxis (NORA), N. for O.R. of (2021) Peanut-induced anaphylaxis in children and adolescents: Data from the European Anaphylaxis Registry. *Allergy*. **76**(5), 1517-1527.

Medicines and Healthcare, Products Regulatory Agency (2014) *Adrenaline auto-injector advice for patients*.

Muraro, A., Agache, I., Clark, A., Sheikh, A., Roberts, G., Akdis, C.A., Borrego, L.M., Higgs, J., Hourihane, J.O., Jorgensen, P., Mazon, A., Parmigiani, D., Said, M., Schnadt, S., van Os-Medendorp, H., Vlieg-Boerstra, B.J., Wickman, M. (2014) EAACI Food Allergy and Anaphylaxis Guidelines: managing patients with food allergy in the community. *Allergy*. **69**(8), 1046-1057.

Muraro, A., Worm, M., Alviani, C., Cardona, V., DunnGalvin, A., Garvey, L.H., Riggioni, C., de Silva, D., Angier, E., Arasi, S., Bellou, A., Beyer, K., Bijlhout, D., Bilò, M.B., Bindslev-Jensen, C., Brockow, K., Fernandez-Rivas, M., Halken, S., Jensen, B., Khaleva, E., Michaelis, L.J., Oude Elberink, H.N.G., Regent, L., Sanchez, A., Vlieg-Boerstra, B.J., Roberts, G., European Academy of Allergy and Clinical Immunology, Food Allergy, Anaphylaxis Guidelines Group (2022) EAACI guidelines: Anaphylaxis (2021 update). *Allergy*. **77**(2), 357-377.

National Institute for Health and Care Excellence (2011) *Anaphylaxis: NICE clinical guideline 134*.

Newman, K.L., Chater, A., Knibb, R.C. (2022) Beliefs about food allergies in adolescents aged 11-19 years: A systematic review. *Clinical and Translational Allergy*. **12**(4), e12142.

Pumphrey (2000) Lessons for management of anaphylaxis from a study of fatal reactions: Lessons for management of anaphylaxis. *Clinical & Experimental Allergy*. **30**(8), 1144-1150.

Ramesh, S. (2008) Food Allergy Overview in Children. *Clinical Reviews in Allergy & Immunology*. **34**(2), 217-230.

Raptis, G., Perez-Botella, M., Totterdell, R., Gerasimidis, K., Michaelis, L.J. (2020) A survey of school's preparedness for managing anaphylaxis in pupils with food allergy. *European Journal of Pediatrics*. **179**(10), 1537-1545.

Raptis, G., Totterdell, R., Gerasimidis, K., Michaelis, L.J., Perez-Botella, M. (2021) School allergy training promotes internal policy review and enhances staff's preparedness in managing pupils with food allergy. *Clinical and Translational Allergy*. **11**(6), e12042.

Santos, M.J.L., Merrill, K.A., Gerdts, J.D., Ben-Shoshan, M., Protudjer, J.L.P. (2022) Food Allergy Education and Management in Schools: A Scoping Review on Current Practices and Gaps. *Nutrients*. **14**(4), 732.

Spare Pens in School (2023) *About Anaphylaxis in Schools*.

Turner, P.J., Baumert, J.L., Beyer, K., Boyle, R.J., Chan, C.-H., Clark, A.T., Crevel, R.W.R., DunnGalvin, A., Fernández-Rivas, M., Gowland, M.H., Grabenhenrich, L., Hardy, S., Houben, G.F., O'B Hourihane, J., Muraro, A., Poulsen, L.K., Pyrz, K., Remington, B.C., Schnadt, S., van Ree, R., Venter, C., Worm, M., Mills, E.N.C., Roberts, G., Ballmer-Weber, B.K. (2016) Can we identify patients at risk of life-threatening allergic reactions to food? *Allergy*. **71**(9), 1241-1255.

Turner, P.J., Regent, L., Jones, C., Fox, A.T. (2020) Keeping food-allergic children safe in our schools—Time for urgent action. *Clinical & Experimental Allergy*. **50**(2), 133-134.

UK Government (2019) *Petition: Allergy provision in school: Introduce Statutory Allergy Care legislation*.

Warren, C.M., Otto, A.K., Walkner, M.M., Gupta, R.S. (2016) Quality of Life Among Food Allergic Patients and Their Caregivers. *Current Allergy and Asthma Reports*. **16**(5), 38.

Waserman, S., Cruickshank, H., Hildebrand, K.J., Mack, D., Bantock, L., Bingemann, T., Chu, D.K., Cuello-Garcia, C., Ebisawa, M., Fahmy, D., Fleischer, D.M., Galloway, L., Gartrell, G., Greenhawt, M., Hamilton, N., Hourihane, J., Langlois, M., Loh, R., Muraro, A., Rosenfield, L., Schoessler, S., Tang, M.L.K., Weitzner, B., Wang, J., Brozek, J.L. (2021) Prevention and management of allergic reactions to food in child care centers and schools: Practice guidelines. *The Journal of Allergy and Clinical Immunology*. **147**(5), 1561-1578.



Annex A: Model process for developing individual healthcare plans

Parent or healthcare professional informs school that child has been newly diagnosed, or is due to attend new school, or is due to return to school after a long-term absence, or that needs have changed.



Headteacher or senior member of school staff to whom this has been delegated, co-ordinates meeting to discuss child's medical support needs; and identifies member of school staff who will provide support to pupil.



Meeting to discuss and agree on need for IHCP to include key school staff, child, parent, relevant healthcare professional and other medical/health clinician as appropriate (or to consider written evidence provided by them).



Develop IHCP in partnership - agree who leads on writing it. Input from healthcare professional must be provided.



School staff training needs identified.



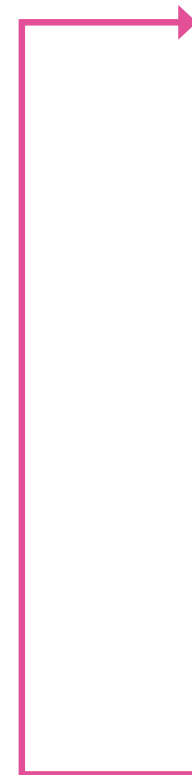
Healthcare professional commissions/delivers training and staff signed-off as competent - review date agreed.



IHCP implemented and circulated to all relevant staff.



IHCP reviewed annually or when condition changes. Parent or healthcare professional to initiate.





BENEDICT BLYTHE FOUNDATION

The Benedict Blythe Learning Foundation was established in 2021 in memory of 5 year old Benedict following his tragic sudden death. An enthusiastic learner, he loved to 'play numbers' and learn about the natural world.

Inspired by his passion for knowledge, exploration and play, Benedict Blythe Foundation seeks to support other children to have the same positive relationship with learning and education regardless of their ability, and remove barriers to education.

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