Food Allergy Management

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KEYWORDS

• Management of food allergy • Epinephrine • Quality of life • Allergic reactions

KEY POINTS

- Food allergen avoidance through label reading is important to prevent accidental exposures to food.
- Prompt administration with epinephrine for anaphylaxis is associated with reduced hospitalization, morbidity, and mortality.
- Effective management of anaphylaxis in the school and community requires a comprehensive approach with adherence to a written food allergy action plan and epinephrine autoinjectors.
- Most medications and vaccines can be administered in patients with food allergy.
- Patients with food allergy at risk for poor quality of life should be given extra support through education; dietary consultation; and, in some cases, referral to a psychologist to mitigate this risk.

MANAGEMENT OF FOOD ALLERGIES

There currently is no cure for food allergies, so the management involves allergen avoidance and treatment of allergic reactions related to accidental exposure to the food. Because food is a ubiquitous part of everyday life, the allergen avoidance requirement for food allergic disease management can cause significant stress on patients and their families. However, with extensive education and physician support including practical recommendations, the stress of food allergy management is mitigated. This article discusses allergen avoidance strategies for patients with IgE- and non-IgE-mediated food allergies, medications necessary for treatment of allergic reactions, school safety laws, and factors that impact the quality of life (QoL) of patients with food allergy. Potential nutritional deficiencies and the risk of reactions to vaccines and other medications associated with specific food allergies are discussed.

FOOD ALLERGEN AVOIDANCE

Current management of food allergies relies on the careful elimination of the offending food from the diet and, in IgE-mediated disease, the prompt institution of therapeutic

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measures to treat severe reactions in cases of accidental exposure. Follow-up with a physician is required after a severe food allergic reaction for observation for 4 to 6 hours to monitor for biphasic reactions, such as anaphylaxis, which can occur in 0.6% to 15% of cases.[1,2] These treatment measures are not required in non-IgE-mediated reactions because these delayed chronic conditions rarely evolve into acute life-threatening reactions (**Table 1**). However, food elimination from the diet is still important in non-IgE-mediated disease to prevent delayed symptoms. Because IgE-mediated disease is life threatening, food allergen exposure through cross-contact or cross-contamination is more important in this disease compared with non-IgE-mediated disease.

Elimination of offending foods from the diet sounds like a trivial exercise, but because of often surprising uses of various food products in industrial food preparation processes and problems of cross-contamination in food-processing facilities, this is challenging. Instruction about the fastidious avoidance of specific allergens by reading of labels (note that the components of commercial food products often change without notice) requires education of the parents by a dietitian or other provider with specific expertise in appropriate counseling of families, such as an allergist. Instructions should be given in oral and written form for each patient.

The Food Allergen Labeling and Consumer Protection Act (FALCPA) was passed to assist consumers with food allergy in the avoidance of products with specific food allergens.[3] It is an amendment to the Federal Food, Drug, and Cosmetic Act and requires that the label of a food that contains an ingredient that is or contains protein from a "major food allergen" declare the presence of the allergen in the manner described by the law. The allergens included in the act are milk, egg, soy, wheat, tree nut, peanut, shrimp, fish, and soybeans. However, there are limitations to the Act, discussed later.[4]

All foods that contain even trace amounts of these allergens should be avoided by individuals with food allergy.[5] Cross-contact or cross-contamination of safe foods with a patient's known allergen should be avoided. More than 160 foods have been identified to cause food allergies in sensitive individuals. There are other common allergens that are not included in the FALCPA list.[4] Patients allergic to sesame should be told that sesame and other seeds are not included on the allergen labeling. The best advice for patients with food allergy is to avoid eating the food if the ingredients are unknown. In children, elimination diets carry a risk of inducing malnutrition with poor growth because of the elimination of essential nutrients. In cases of multiple food allergies, monitoring by an experienced pediatric dietitian to ensure adequate nutrient intake is useful.

There are patient advocacy organizations that provide written and online information about label reading that is useful for patients and families (eg, Food Allergy Research and Education, www.foodallergy.org). The written material should include

Table 1
Food allergic disorders

Acute Onset (IgE Mediated)	Delayed Onset (IgE and/or Cellular Mediated)
Urticaria/angioedema	Atopic dermatitis
Anaphylaxis	Eosinophilic esophagitis and other eosinophilic gastroenteropathies
Oral allergy syndrome	Food protein–induced enterocolitis syndrome
Food-associated, exercise-induced anaphylaxis	Allergic proctocolitis
Alpha gal mammalian meat allergy	Contact dermatitis