



Diagnosis and Management of Food Allergies

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Food allergy affects 8%, or 1 in 13, of children in the United States, making it a condition of emerging public health importance.¹ Improving access to quality, comprehensive care for children with food allergies is critical as the number of afflicted children continues to increase. Currently, there is no cure for childhood food allergy; rather, the mainstay for proper management is for the child to avoid the offending food. This seemingly simple task proves difficult as one considers the ubiquity of food throughout a child's life at home, in the classroom, and around the community. Of greater concern is that these children often experience severe, life-threatening reactions that can lead to hospitalization or even death if an accidental ingestion occurs.

Improving understanding and management of childhood food allergy is critical for primary care physicians. Ensuring that both caregivers and children receive an evidence-based diagnosis using history and appropriate testing is essential. Counseling on how to use life-saving medications (eg, epinephrine auto-injectors), in addition to guiding families on how to live with food allergies, remains paramount to ensuring children with food allergies remain safe from infancy through adolescence.

In this issue, the first of two, we explore the following content domains to ensure pediatricians have a common baseline understanding of how to man-

age childhood food allergy: 1) the epidemiology of childhood food allergy; 2) clinical manifestations of childhood food allergy; 3) diagnosis of food allergy; and 4) potential therapies for food allergy.

To ensure the safety of our children through developing sound policy, evidence-based clinical practice, and community-engaged health programs for children with food allergies, we must first understand how childhood food al-

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lergy has been characterized at the population level. To begin, **Ashley A. Dyer, MPH** and myself (see page 241) describe the current epidemiology of childhood food allergy, including an overview of the severity of symptoms, geographic distribution, tolerance, economic impact, and future directions in childhood food allergy epidemiological research.

After gaining a better understanding of childhood food allergy at the population level, we transition to an article by **Tamara T. Perry, MD**, and **Robbie D. Pesek, MD** (see page 242) that outlines the importance of clinical history when diagnosing a childhood food allergy, specifically describing the clinical manifestations commonly resulting from immunoglobulin E (IgE)-mediated,

non-IgE-mediated, or mixed IgE-/non-IgE-mediated mechanisms. Accurate diagnosis of childhood food allergies is contingent upon understanding the expected clinical range of symptoms and clinical manifestations as to not unnecessarily limit food from a child's diet.

Once the reader can identify expected clinical manifestations of childhood food allergy, we move onto an article by **Philippe Bégin, MD, MSc, FR-CPC**, and **Kari C. Nadeau, MD PhD, FAACAP** (see page 243) that further explores the challenges of diagnosing a child with food allergies. In particular, the authors walk the reader through the diagnostic approach of IgE-mediated food allergy, including the pre-test clinical assessment of a child with a suspected food allergy and the utility of the available diagnostic tests. Lastly, Bégin and Nadeau conclude their review with examples of how to interpret allergy tests while also considering the pre-test assessment to determine the final probability of a food allergy, as well as elucidate indications for being referred to an allergist for a food challenge.

After learning about the strengths and limitations of food allergy diagnostics, we transition to an article by **Jacob D. Kattan, MD**, and **Julie Wang, MD** (see page 244) that describes several therapies currently being investigated. In particular, the authors highlight subcutaneous, oral, and sublingual immunotherapy; anti-IgE therapy;

and traditional Chinese medicine. Although none of these therapies are ready for widespread use in clinical practice, understanding the direction of food allergy research and potential strategies being tested will allow physicians to better explain what is on the treatment horizon to affected families and children with food allergies. Next month, we will take a deeper look at some emerging science in food allergy treatment and explore food allergies' impact on quality of life. ■

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About the Guest Editor

Ruchi Gupta, MD, MPH, is an associate professor and Director of the Program in Maternal and Child Healthcare at Northwestern University's Center for Healthcare Studies. Dr. Gupta is a pediatric attending at the Ann & Robert H. Lurie Children's Hospital of Chicago. She is also on the Board of Directors of the Chicago Asthma Consortium and the Alliance for Research in Chicagoland Communities. Her primary research areas include childhood food allergy and asthma. She works on reducing childhood asthma severity and disparities in the US through community-based participatory research. In food allergy, Dr. Gupta is working to improve the state of childhood food allergy in the US (ie, prevalence and severity, economics, physician management and knowledge, attitudes and beliefs and potential environmental triggers). Dr. Gupta holds an MD from the University of Louisville, an MPH from the Harvard School of Public Health, and completed her residency training at the University of Washington and fellowship at Boston Children's Hospital and Harvard Medical School.

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