

# When worlds collide: Food allergy and the COVID-19 pandemic

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This issue of the *Journal of Food Allergy* features a collection of articles that exemplify how the complexities of food allergy and the world in which we live increasingly challenge all involved parties, including health care professionals, patients, and caregivers. Adding to the burden of these challenges is the daunting presence of the coronavirus disease 2019 (COVID-19) pandemic, which has permeated food allergy management in a myriad of ways.

Food allergy is a significant public health concern, with a rising prevalence that affects almost 11% of adults and 8% of children in the United States.<sup>1</sup> Despite the large number of patients with food allergy (32 million patients with food allergy in the United States), the reality is that, other than preventative strategies, little progress has been made in providing treatment options for individuals with food allergy. Indeed, with the exception of a single therapeutic option for children with peanut allergy ages 4 through 17 (Palforzia [Aimmune Therapeutics, Inc., Brisbane, CA]), there are no other United States Food and Drug Administration approved therapies. For the most part, management options remain limited to dietary elimination and emergency preparedness. However, in this issue, as reviewed by Groetch and Venter,<sup>2</sup> elimination diets are not without nutritional risk. In particular, the risk is high for children who must avoid nutritionally important foods, *e.g.*, milk, and even higher for children who have multiple foods allergies.<sup>2</sup> Adults with food allergies may also face nutritional challenges to meet current recommended dietary guidelines for health.

Compounding the nutritional risk is the disruption caused by the COVID-19 pandemic, which has interfered with food allergy management in a multiple of ways. When a U.S. national emergency was declared

mid March 2020 due to the COVID-19 pandemic, food allergy management was affected by stay-at-home orders, regulatory changes, evolving medical recommendations, and food supply chain disruptions. To assess the parental perspective on food allergy management and safety during the COVID-19 pandemic, Russell *et al.*<sup>3</sup> conducted a survey that was distributed to parents of children with food allergy. Of the 359 parental respondents who met inclusion criteria, approximately two-thirds expressed concerns about potential COVID-19 exposure if it were necessary to access emergency department care and a similar portion expressed school reentry concerns.<sup>3</sup> The vast majority of patients had no opportunity to discuss recommended anaphylaxis management algorithm changes with a provider, nor had they had an opportunity to discuss with a provider the May 22, 2020 temporary United States Food and Drug Agency labeling policy<sup>4</sup> (which allows minor formulation changes without making conforming label changes on packages).<sup>3</sup> Of particular concern, most parents reported shortages of preferred safe food brands, which serves to compound the risk for nutritional deficiency as brought to our attention by Groetch and Venter.<sup>2,3</sup>

With regard to the U.S. Centers for Disease Control and Prevention's recommendation for classroom dining, Russell *et al.*<sup>3</sup> reported that most parents were concerned and planned to request modifications. The authors concluded that these survey results serve to inform clinical team members (*e.g.*, physicians, nurses, dietitians) of the potential effects that the COVID-19 pandemic may have on this patient population, with subsequent implications for patient-specific screening, education, and shared-decision making with regard to risk mitigation needs.<sup>3</sup> Given the diminished contact with health care providers due to the COVID-19 pandemic and the shortages of preferred safe food brands, what is needed now, more than ever before, is food allergy education provided by nurse educators and dietary guidance and/or education provided by registered dietitians. Physicians, nurses, and dietitians, working as a clinical team, who offer true case management is generally regarded as the best approach to

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successful management of food allergy; this is even more important to be implemented now, through telehealth, as we face the challenges brought on by the COVID-19 pandemic.

Also in this issue, Knox *et al.*<sup>5</sup> explored the utilization frequency of emergency back-up resources during open food challenges at Cleveland Clinic Children's Hospital from 2013–2018. The authors retrospectively reviewed a total of 1269 challenges in 812 unique patients ages 5 months to 21 years.<sup>5</sup> They found that the need for back-up resources during food challenges was rare, which suggested that most office-based allergy practices would be able to treat open food challenge reactions.<sup>5</sup>

Food allergy education is often directed toward adult caregivers. However, once children start attending school, they must be able to participate in their own food allergy care to remain safe. Shroba and McElroy<sup>6</sup> sought to assess food allergy knowledge and test an educational intervention targeted toward the child. Twenty-nine children between the ages of 5 and 11 years and their caregivers were enrolled. Despite the small sample size, the results demonstrated that child-based education was comparable with education targeted toward caregivers, with no difference in allergic events.<sup>6</sup> The authors concluded that children can take an active role in education and management of their food allergies at school.<sup>6</sup>

Cow's milk allergy is the most common cause of food allergy in young children. Ingestion of milk products in children with a milk protein allergy can lead to anaphylaxis and requires complete dietary elimination. Extensively hydrolyzed milk formula is often substituted in these cases; however, in this issue, Flores and Persaud<sup>7</sup> presented a case report that reminds practitioners to be cautious when switching formula because rare allergic reactions to extensively hydrolyzed formula can occur.

In summary, the collection of articles found within the pages of this issue exemplify how the complexities of food allergy and the world in which we live continue to challenge all involved parties, including health care professionals, patients, and caregivers. On behalf of the Editorial Board, and in keeping with the overall mission of the *Journal of Food Allergy*, it is our hope that the collection of articles found within these pages will impart to scientists, researchers, health care professionals, patients, and caregivers clinically useful insights with regard to the prevention, diagnosis, and treatment of food hypersensitivity disorders.

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