“Gold standard” food allergy test faces implementation barriers but solutions possible

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A new Canadian study concludes that the procedure known as an oral food challenge (OFC), considered the “gold standard” of food allergy testing, faces multiple barriers preventing its widespread implementation.

The study, published in the Journal of Allergy and Clinical Immunology: In Practice, surveyed Canadian allergists, pediatricians, and parents to identify barriers to offering or participating in OFCs, as well as possible solutions.

OFCs are used to accurately diagnose a food allergy or to determine if an individual with a known food allergy is no longer allergic. The procedure involves having a patient eat small but increasing amounts of food under medical supervision, then monitoring the patient for an allergic reaction.

AllerGen investigator Dr. Edmond S. Chan, clinical associate professor in the department of pediatrics at The University of British Columbia and head of the division of allergy & clinical immunology at BC Children’s Hospital, led the research.

“In our study, nearly 97% of surveyed allergists agreed there was a need to conduct more OFCs both in the hospital setting and in community practices across Canada,” says Chan. “Among allergists, the main barriers to performing OFCs were: lack of time, since challenges may take up to four to six hours to complete; and a lack of resources, including inadequate office space and the need for trained staff to observe the patient for several hours following the challenge.”

The study also found that pediatricians refer a median of three patients per month to allergists. Less than half (45.5%) of the pediatricians surveyed preferred to send patients to allergists who perform OFCs, while the remaining pediatricians were indifferent (27.7%) or preferred to refer to allergists who do not perform OFC’s (26.7%), perhaps due to a perception of shorter waiting lists.

Among parents of children with food allergies, the main barriers to participating in OFCs were fear and anxiety about the procedure, as well as concerns over a child experiencing an allergic reaction during a food challenge.

The researchers conducted qualitative focus groups with parents at the BC Children’s to further explore their perspectives. “Parents said that before an OFC, they feared their child might experience an allergic reaction or that they might lose their child’s trust,” says first author Elaine Hsu, MPH, an AllerGen trainee and Research Coordinator at the BC Children’s.

“After an OFC, parents were polarized in their experiences: some felt the experience was scary and challenging, while others felt it was empowering and fulfilling.”
The study also identified possible ways to improve access to OFCs. “It’s clear that parents want more psychological support both before and after the procedure,” says Hsu.

Among allergists, suggested solutions included: creating OFC standards and guidelines on when to offer an OFC and to help determine whether an OFC should be performed in a hospital-based setting or a community practice; establishing dedicated fee codes and schedules to ensure adequate physician compensation for OFCs; and providing additional OFC training.

The study concluded that multiple barriers prevent widespread use of OFCs. Efforts targeting OFC training for allergists, education for pediatricians, and standardized guidelines created with clinician and parent input are likely to increase OFC acceptance.

“Skin prick tests and serum IgE blood tests for diagnosing a food allergy often produce false positive results, and an incorrect diagnosis can lead to unnecessary dietary restrictions and unwarranted anxiety for parents and children,” notes Chan. “Oral food challenges are highly accurate and are critical to confirming or eliminating a diagnosis of food allergy; this, in turn, can improve quality of life significantly for both children and adults.”

About AllerGen NCE

AllerGen NCE Inc. is a national research network dedicated to improving the quality of life of people suffering from allergic and related immune diseases. Funded by the Government of Canada through the federal Networks of Centres of Excellence (NCE) Program, the Network is hosted at McMaster University in Hamilton, ON.

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