

PERSPECTIVE

Evidence-Based Evaluation for Allergies to Avoid Inappropriate Testing, Diagnosis, and Treatment

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In the midst of an examination room cluttered with crayons, coloring books, and toys intended to pacify or bribe children during allergy skin testing, an anxious mother attended to her active 4-year-old son. A glance at the appointment book before walking into the room indicated that the reason for this new patient visit was “food allergies.” The interview began with the usual “why are you here” question. The mother’s response: she wanted to know what foods her son was really allergic to and were causing his hyperactivity (attention-deficit/hyperactivity disorder [ADHD]).

An Internet search had directed her to various blogs and support groups encouraging her to have her son tested for allergies. She found a physician who promised that one easy blood test could determine the best elimination diet to treat ADHD. The test results showed that he was allergic to “many things,” most of which he had eaten on a regular basis without any apparent reaction. However, she heeded the advice of her Internet ADHD “expert” and began to eliminate the foods from his diet. During the office visit, she said that she saw no difference in his behavior on the various elimination diets. In fact, she thought that his behavior had gotten worse because he could not eat his favorite foods. Yet she was worried that reintroducing the foods might be harmful.

A review of the child’s laboratory results would have made any good allergist’s heart sink: IgG tests for reactions to more than 100 foods. Not only are IgG tests useless for diagnosing allergies,¹⁻⁴ there is no evidence linking allergic reactions to ADHD (or other neurological disorders, such as autism). A positive IgG test result for a food allergen just means that an individual has been exposed—in other words, has eaten the food before. Because the child had no clinical history consistent with allergies, no allergy testing should have been done at all. For any patient who did have a history of allergy symptoms, the appropriate allergy testing would have been for allergen-specific IgE.

The rest of the visit was spent reassuring the mother that her little boy did not have any food allergies and that even if he did, this could not be the cause of his ADHD. She could give him his favorite foods again—and she should ask his pediatrician for some evidence-based

ways to manage his behavior. She left the examination room appreciative and relieved.

This case illustrates what has been coined the treatment trap,⁵ inappropriate testing that spirals into inappropriate management. Although the consequences for this young boy and his family were not life threatening, such unnecessary testing nevertheless causes harm, the monetary cost being only the most obvious. In this case, a small child underwent unnecessary blood sampling, never a fun event. A mother was made to worry unnecessarily about the food that she was feeding her son; she was also distracted from searching for more effective ways to help him.

Unfortunately, this scenario is repeated day in and day out in allergists’ offices, and it comes in many forms. The IgG test is the wrong test for allergies, yet IgG allergy testing is often performed. Why? Sometimes the patient or parent requests IgG testing after reading misinformation on the Internet about a link between any number of complaints or behaviors and allergies. In addition, some nonallergists and laboratories naively order IgG allergy tests because such assays are commercially promoted and available.

When a clinical history of allergy does exist, only then is it appropriate to pursue testing with allergen-specific IgE tests. Furthermore, allergen-specific IgE testing should be limited to allergens suggested by the clinical history. Ordering a battery of IgE tests in the absence of a relevant clinical history is as inappropriate as ordering IgG allergen tests. Although there are no data on the annual national health care cost incurred by inappropriate allergy testing, it is not uncommon for patients to incur costs of several thousand dollars, not to mention the consequent medical, economic, and social impacts on patients, families, and clinicians due to inaccurate diagnosis leading to inappropriate treatment.

As a partner in the American Board of Internal Medicine Foundation’s Choosing Wisely initiative, the American Academy of Allergy, Asthma and Immunology has highlighted the need for patients and physicians to avoid the aforementioned examples of inappropriate allergy testing.⁶ It is a treatment trap, and our patients deserve better.

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Conflict of Interest Disclosures: Dr Huston has served on the Board of Directors of the American Board of Internal Medicine, the American Board of Allergy and Immunology, and the American Academy of Allergy, Asthma and Immunology [AAAAI] and currently serves on the Accreditation Council for Graduate Medical Education Residency

Review Committee for Allergy and Immunology and the American Board of Medical Specialties Health and Public Policy Committee. Dr Cox serves on the Board of Directors of the American Board of Allergy and Immunology and as president on the Board of Directors of the AAAAI, and the AAAAI/American College of Allergy, Asthma and Immunology Joint Task Force on Practice Parameters. Drs Huston and

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