

Correspondence

Reply

To the Editor:

We thank Greenhawt et al¹ for their interest in our recent article.² The authors speculate that in other populations specificity of Ara h2-specific IgE may be lower and discuss economic considerations regarding screening for peanut allergy before peanut introduction.¹

With regard to the improved specificity that we found in this study compared with other studies of peanut allergy diagnostics, we believe that this is mostly due to the study design rather than demographic or geographic considerations. Most previous studies of peanut allergy diagnostics have selected for children who were known to be sensitized to peanut. For example, in the HealthNuts study³ referenced by Greenhawt et al, the population of peanut-tolerant infants was not randomly selected, but instead comprised 58 infants included because of positive peanut skin prick testing result and 42 who were included because of negative peanut skin prick testing result. Naturally, when studies of diagnostic tests select control populations with artificially high rates of peanut sensitization, the rate of positive peanut diagnostic test results is higher than would be found in an unselected control population. This leads directly to a falsely lowered specificity, because specificity is, by definition, 1 minus the rate of positive test results in the control population. Had we only included children with positive peanut skin prick testing results, we would have found lower specificity for all diagnostic tests (Table I), but we avoided this bias by including only those infants who had not previously had peanut allergy testing.

Nonetheless, we agree that decisions about screening for peanut allergy on either the individual or population level need to consider the drawbacks of screening, including the possibility of false positives, potential delays in peanut introduction, and the cost of evaluation. Use of only Ara h2-specific IgE may lower some of those costs compared with peanut skin prick test by reducing the rate of false positives and obviating the need for specialized care for evaluation, but would require education of pediatricians about who is most at risk and how to order the test

and interpret the test result. It would also require that commercial laboratories allow for ordering this test without also ordering peanut-specific IgE or IgE to other peanut components.

Furthermore, we hope that our study⁴ helps identify groups for whom the benefits may outweigh the costs of screening because the risk of peanut allergy is so high, including older infants with severe eczema, and, conversely, provides reassurance that the risk of peanut allergy is so low among siblings of children with peanut allergy that screening is not warranted without other risk factors.

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TABLE I. Specificity of peanut diagnostic tests if different inclusion criteria were applied to our population

Diagnostic test	Specificity in overall population	Specificity if only those with peanut SPT wheal ≥ 1 mm included	Specificity if only those with peanut SPT wheal ≥ 3 mm included
Ara h 2-specific IgE at 0.1 kU/L	98%	95%	91%
Peanut-specific IgE at 0.1 kU/L	78%	62%	44%
Peanut SPT wheal at 3 mm	88%	59%	0

SPT, Skin prick test.

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