

Correspondence and Replies

Peanut allergy prevention: A mother's perspective



To the Editor:

A recent review by Chua et al¹ highlights the benefits of oral immunotherapy (OIT) for infants who fail primary prevention. In 2015, the Learning Early About Peanut Allergy (LEAP) study revolutionized recommendations for peanut ingestion in early life.² Infants 4 to 11 months of age were advised to ingest 2 g of peanut protein (PP) 3 times weekly with Bamba puffs (Osem Food Industries, Shoham, Israel).² Early introduction followed by regular ingestion significantly lowered the likelihood of peanut allergy in later childhood.² Following this study, the 2017 National Institute of Allergy and Infectious Diseases (NIAID) addendum guidelines advised the introduction of peanut as early as 4 to 6 months of age.³ Peanut feeding guidelines provided recipes containing either 2 teaspoons of peanut butter (PB) or 21 Bamba (each 2 g of PP), and full portions were encouraged.³ Although more flexible infant feeding guidelines were updated in 2021, parents were still encouraged to offer 1 to 2 g of PP with PB or peanut flour at least once weekly.⁴ This PP dose remains well above the average eliciting dose in peanut allergy.⁵

Infant feeding guidelines may not be congruent with the actual LEAP methodology. In the treatment arm, infants were advised to ingest 6 g of PP weekly. However, compliance was defined as consumption of only 3 g of PP weekly, and this was required for only 50% of the weeks enrolled in the study. Infants needed to ingest 2 g of PP only once in the first and second years of life.² With this flexible definition of compliance, infants may have diverged significantly from the recommended early doses of PP. Current guidelines may set unrealistic targets for what early doses of PP are necessary to prevent peanut allergy in infancy and could paradoxically raise the risk of allergy through a domino effect. With large early doses, the risk of a dose-dependent reaction may increase, which in turn may result in avoidance during a critical window of life for active intervention.

Chua et al¹ highlight that despite early introduction, peanut allergy among 12-month-olds has not decreased in some studies.^{6,7} Although Chua et al¹ defined the problem, they did not hypothesize why LEAP is falling short in a real-world setting. Infant feeding guidelines could be partially culpable. Both the 2017 NIAID and 2021 feeding guidelines encourage doses of PP for young infants that do not necessarily reflect the actual LEAP methodology. Early infant feeding behavior is often exploratory, starting with tiny bites of solid food such as Bamba. From a mother's perspective, babies naturally eat much smaller doses of PP when ingesting Bamba relative to PB. As the infant's eating skills progress, they gradually consume higher doses of PP in Bamba over time. PB is starkly different. It is easy to give high doses of PP quickly at very young ages. Why does the mother's perspective matter? Well, we feed infants constantly. Smaller doses of PP for early ingestions may be more congruent with peanut allergy prevention, akin to the gradual approach of OIT and thus provide an opportunity for inadvertent desensitization in infants who develop early IgE sensitization. Starting low and going slow may also enhance parental comfort with home introductions

and thus increase adherence to primary prevention. It is time for a change.

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Reply to "Peanut allergy prevention: A mother's perspective"



To the Editor:

We appreciate the correspondence from Wangberg¹ and her interest in our rostrum on management options for failed primary peanut allergy prevention. Our rostrum article discussed the rationale, latest evidence, and the benefits and risks of prompt infant oral immunotherapy (OIT) as a salvage for infants who fail primary food allergy prevention.²

The majority of countries with prevention guidelines permit a more open and fluid process,^{3,4} without a fixed quantity or frequency of particular allergens. Most do not specify a necessity for introduction to be emphasized more in any particular risk group, including the 2021 American Academy of Allergy, Asthma & Immunology; American College of Allergy, Asthma, and Immunology; and Canadian Society of Allergy and Clinical Immunology trisociety endorsed guidelines.⁴ Recent data from PreventADALL show that prevention effects can even be seen

in standard-risk children.⁵ The data on the fluid approach to prevention continue to evolve, and we agree that “starting low and going slow” is one of many practical ways of implementing primary prevention for some families. However, this discussion, although important, is not the primary focus of our rostrum.

Unfortunately, despite following whichever early introduction guidance a parent may choose, many children still develop clinical food allergies as a result. Therefore, our article was focused on the central issue of how to proceed when an infant reacts to a particular allergen during early intervention, irrespective of the prevention approach, and how to optimize that scenario. Our position is to advocate a seamless integration of failed primary prevention and infant OIT, as soon as possible after diagnosis, to reduce the time the infant lives with strict avoidance as a primary management strategy and immerse the family in an active management approach. We feel this can be both empowering for the family and immunologically protective for the infant, as this maximizes the potential that the allergenic food can be integrated into the diet in the desensitized child, with minimal risk of developing the well-documented adverse psychological effects that are often associated with allergen avoidance.

Our larger point in the rostrum was to emphasize that even “the best-laid plans of mice and men often go awry,” and that despite best intentions in adhering to any early introduction strategy (including attempts at starting low and going slow), there will always be infants who fail this approach. These infants can be helped by providing the option of early OIT.²

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honorarium for lectures from ImSci and MedLearningGroup, and multiple state/local allergy societies. M. Shaker has participated in research funded by DBV, serves on the Joint Task Force on Practice Parameters, is an associate editor for the *Annals of Allergy, Asthma, and Immunology*, and is a member of the editorial boards for the *Journal of Allergy and Clinical Immunology In Practice* and the *Journal of Food Allergy*. E. M. Abrams is a collaborator with the Institute for Health Metrics and Evaluation. She is an employee of Public Health Agency of Canada (PHAC), but the views expressed are her own and not those of PHAC. S. B. Cameron has been a member of advisory boards for Medexus, Sanofi, Bausch Health, and Pfizer, and was a committee member of the Canadian Society of Allergy Clinical Immunology (CSACI) oral immunotherapy guidelines. V. E. Cook has been a member of advisory boards for Sanofi Genzyme, Bausch Health, and ALK, and has received honoraria from Aralez Pharmaceuticals and CSL Behring. D. M. Fleischer has received research support from Aimmune Therapeutics and DBV Technologies; has been a member of advisory boards for DBV Technologies, Genentech, Novartis, Nasus Pharma, and DOTS Technologies; has been a member of the Medical Advisory Board for the Food Allergy & Anaphylaxis Connection Team (FAACT) and Medical Advisory Council for the National Peanut Board; and has received royalties from UpToDate. R. Mak is the advisory board member of ALK and Sanofi, and has received speaker honoraria from Novartis, Padiapharm, and AstraZeneca. T K Vander Leek has served on advisory boards for and received honoraria from Aralez/Miravos, Bausch Health, and Covis Pharma. E. S. Chan has received research support from DBV Technologies; has been a member of advisory boards for Pfizer, Padiapharm, Leo Pharma, Kaleo, DBV, AllerGenis, Sanofi Genzyme, Bausch Health, and Avir Pharma; is a member of the healthcare advisory board for Food Allergy Canada; and was co-lead of the CSACI oral immunotherapy guidelines. The rest of the authors declare that they have no relevant conflicts of interest.

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Have we reached our final destination with biologics in severe uncontrolled asthma?



To the Editor:

Portacci et al¹ eloquently proposed a comprehensive assessment model for defining super-responders to biologics in patients with type 2 (T2)-high severe uncontrolled asthma (SUA). This in turn begs the pertinent question as to whether it is preferable to block upstream epithelial alarmins such as thymic stromal lymphopoietin (TSLP) or downstream cytokines such as IL4, IL5, and IL13 (Figure 1) in order to achieve the best response in a given patient.²

In this regard, the recent 2-year DESTINATION study³ with the anti-TSLP agent tezepelumab in SUA provided some important clues in showing significant reductions in annualized asthma