Early Introduction of Peanuts: Clinical Applications of the LEAP Trial

Yale University ECHO Series

Session 2

Stephanie Leeds, MD FAAAAI

Disclosure

The following individuals have no conflicts of interest to disclose relevant to this activity:

- Stephanie Leeds, MD - Presenter
- Gunjan Tiyyagura, MD - Reviewer
- Sandra Selzer, MSHQ - Planner
- Kris Samara - Planner
- Theresa Barrett, PhD, CMP, CAE - Planner

Accreditation

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the New Jersey of Academy of Family Physicians and Hezekiah Beardsley Connecticut Chapter of the American Academy of Pediatrics. The New Jersey Academy of Family Physicians is accredited by the ACCME to provide continuing medical education for physicians.

The New Jersey Academy of Family Physicians designates this live activity for a maximum of 1.0 *AMA PRA Category 1 Credit(s)™*.

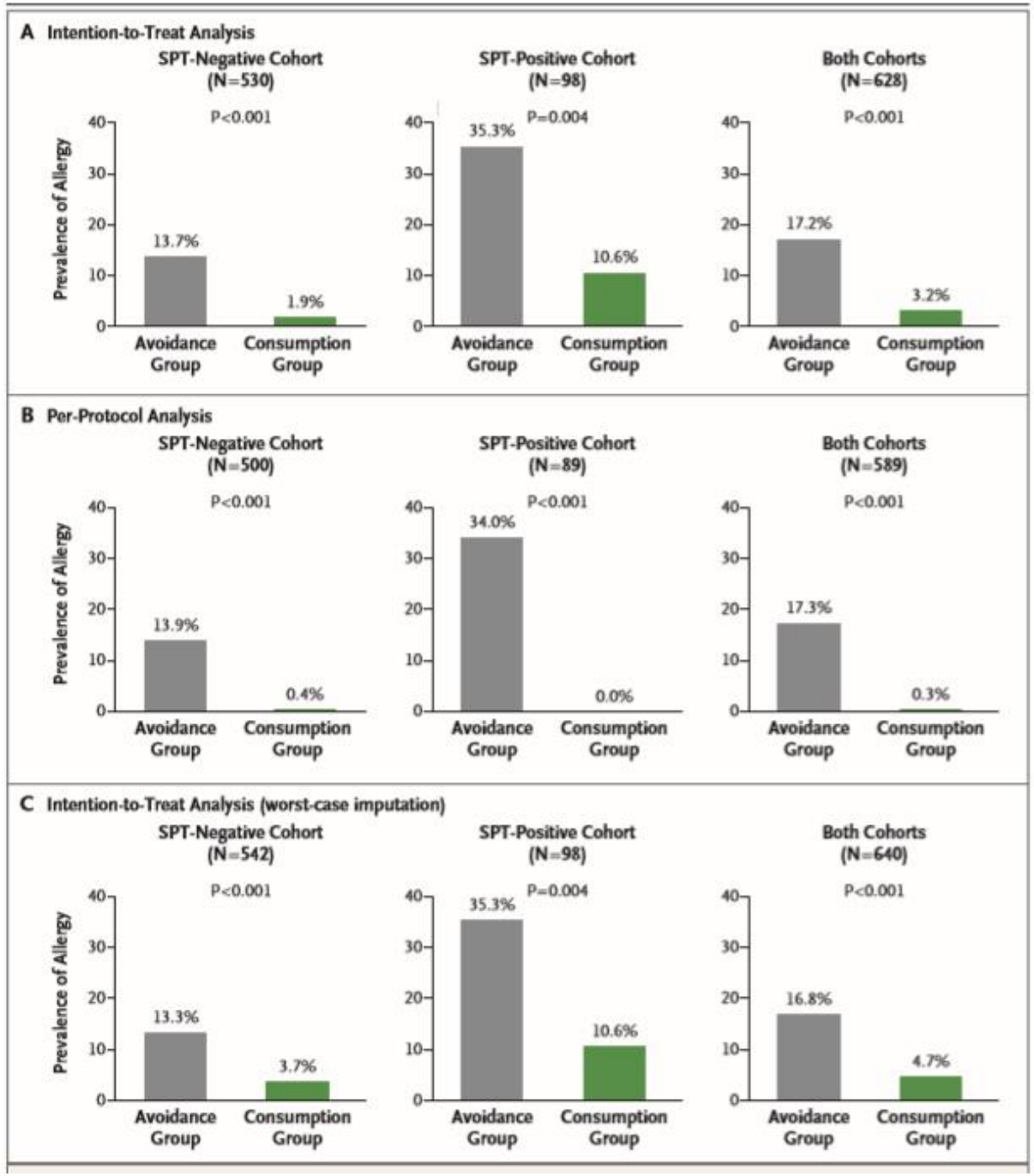
Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Learning Objectives

- Identify the patients most at risk for developing food allergy, and therefore most likely to benefit from early peanut introduction.
- Outline the practical guidelines for implementation of early peanut introduction.
- Discuss barriers to introduction of peanut in the infant diet.

Clinical Cases:

1) 4-month old with history of mild eczema and mother with shellfish allergy?
2) 4-month old with severe eczema and no family history of food allergies?
3) 6-month old with egg allergy?
4) 5-month old with no history of eczema or food reactions, but with older sibling with peanut allergy?

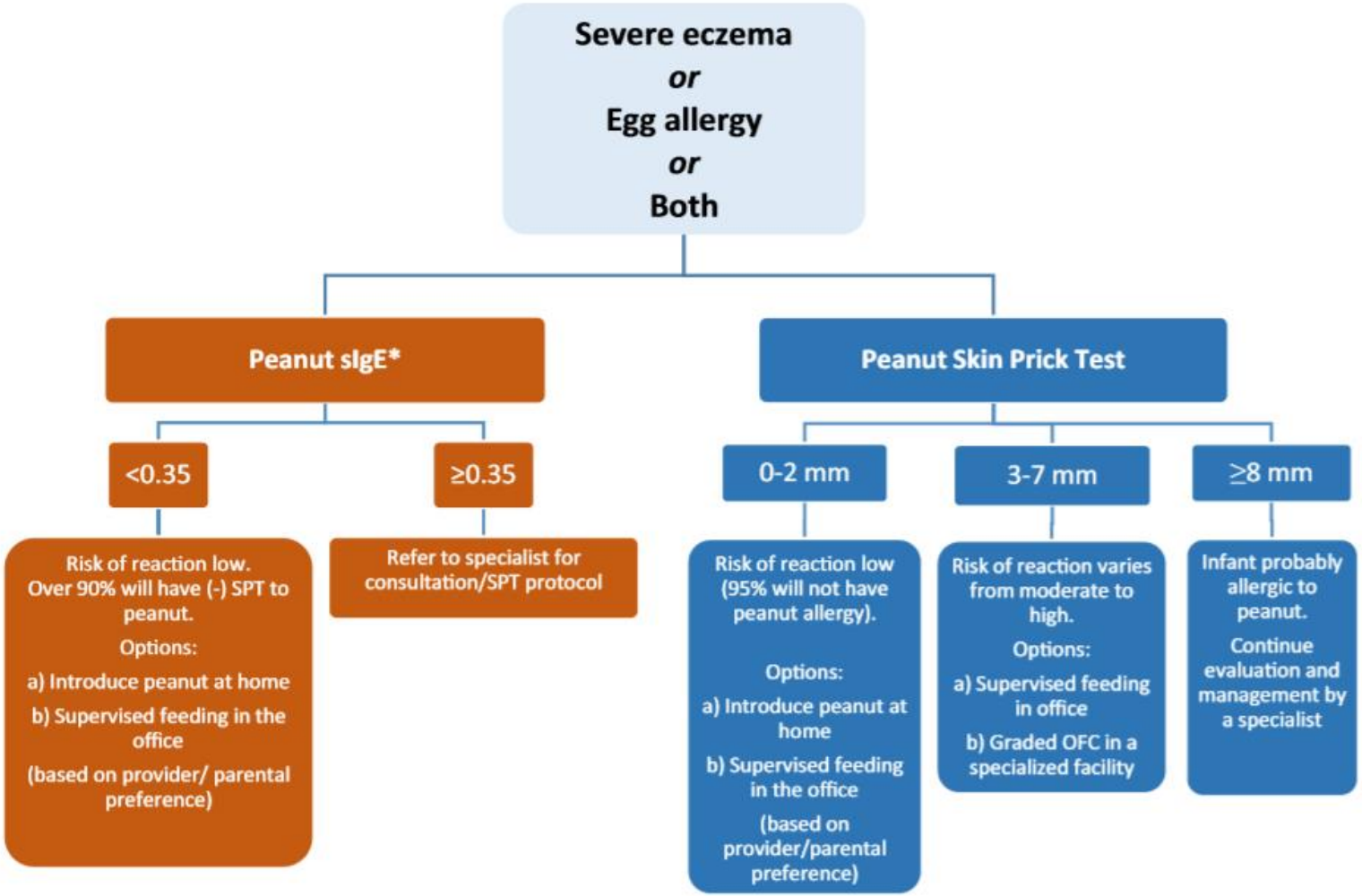


Du Toit G et al, NEJM 2015

Risk Stratification

Addendum guideline	Infant criteria	Recommendations	Earliest age of peanut introduction
1	Severe eczema, egg allergy, or both	Strongly consider evaluation by sIgE measurement and/or SPT and, if necessary, an OFC. Based on test results, introduce peanut-containing foods.	4-6 months
2	Mild-to-moderate eczema	Introduce peanut-containing foods	Around 6 months
3	No eczema or any food allergy	Introduce peanut-containing foods	Age appropriate and in accordance with family preferences and cultural practices

Togias et al, JACI 2017



* To minimize a delay in peanut introduction for children who may test negative, testing for peanut-specific IgE may be the preferred initial approach in certain health care settings. Food allergen panel testing or the addition of sIgE testing for foods other than peanut is not recommended due to poor positive predictive value.

Togias et al, JACI 2017

Clinical Cases:

1) 4-month old with history of mild eczema and mother with shellfish allergy? Introduce peanut containing foods at home around 6 months.
2) 4-month old with severe eczema and no family history of food allergies? Send peanut specific IgE level, determine if referral to allergist warranted based on results.
3) 6-month old with egg allergy? Send peanut specific IgE level, determine if referral to allergist warranted based on results.
4) 5-month old with no history of eczema or food reactions, but with older sibling with peanut allergy? Introduce peanut containing foods at home around 6 months of age. Discuss barriers to doing so and refer to allergy if family is scared to proceed.

At Home Introduction- Handout for Patients

APPENDIX D. INSTRUCTIONS FOR HOME FEEDING OF PEANUT PROTEIN FOR INFANTS AT LOW RISK OF AN ALLERGIC REACTION TO PEANUT

You can print out for families:

https://www.niaid.nih.gov/sites/default/files/addendum_guidelines_peanut_appx_d.pdf

Four Recipe Options, Each Containing Approximately 2g of Peanut Protein

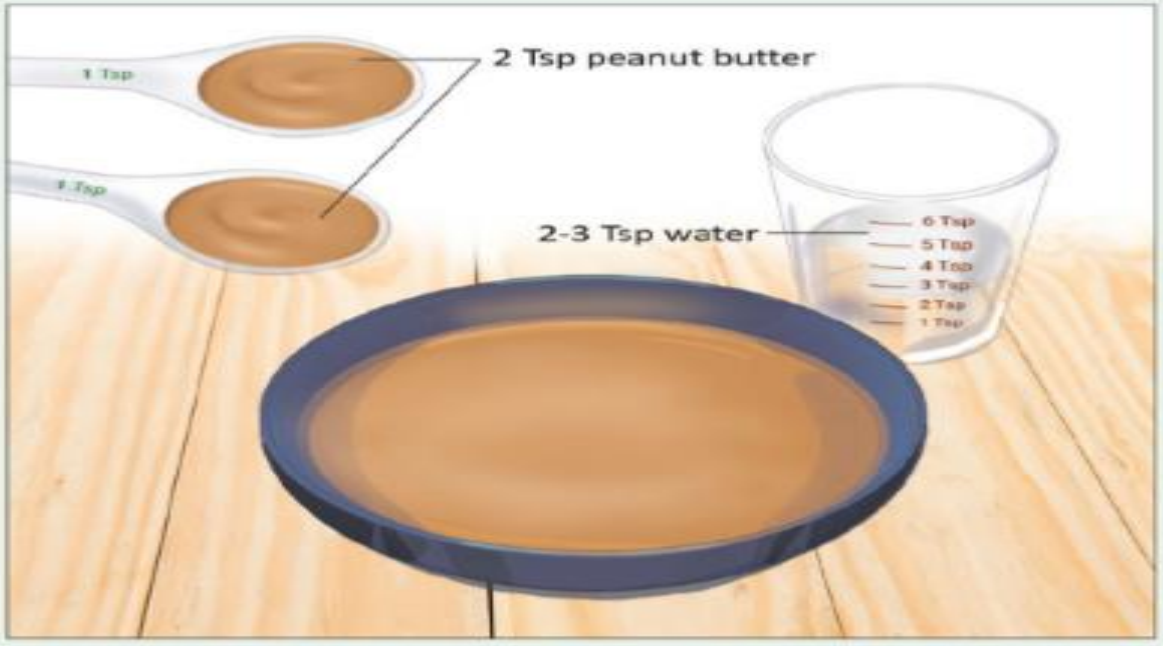
Note: Teaspoons and tablespoons are US measures (5 and 15 mL for a level teaspoon or tablespoon, respectively).

Option 1: Bamba (Osem, Israel), 21 pieces (approximately 2 g of peanut protein)

Note: Bamba is named because it was the product used in the LEAP trial and therefore has proven efficacy and safety. Other peanut puff products with similar peanut protein content can be substituted.

a. For infants less than 7 months of age, soften the Bamba with 4 to 6 teaspoons of water.

b. For older infants who can manage dissolvable textures, unmodified Bamba can be fed. If dissolvable textures are not yet part of the infant's diet, softened Bamba should be provided.



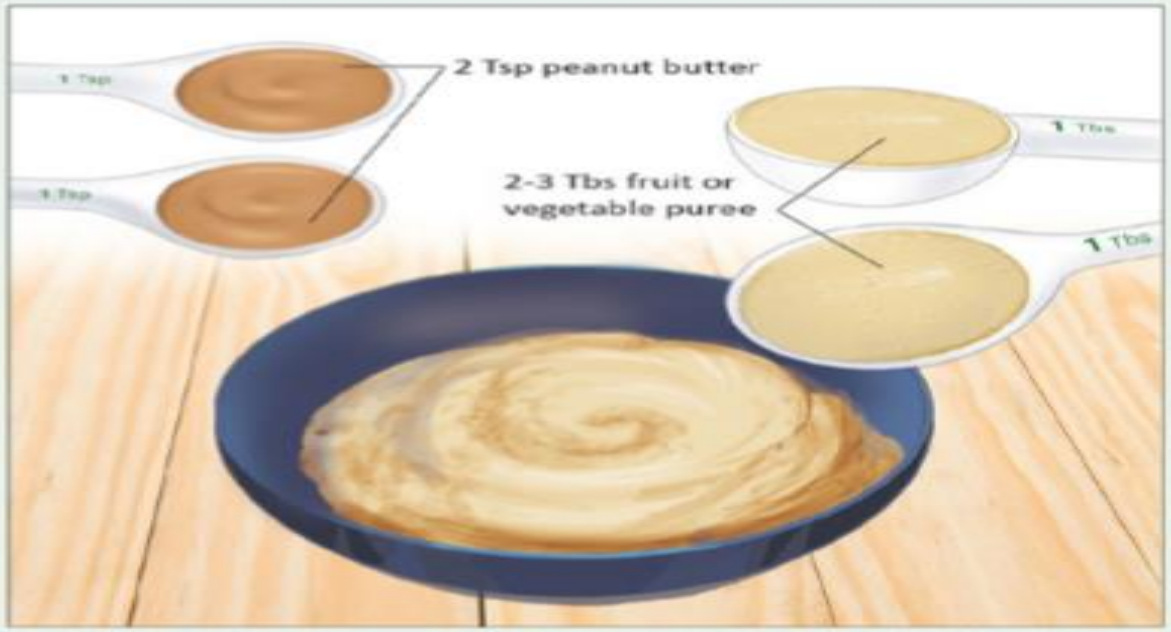
Option 2: Thinned smooth peanut butter, 2 teaspoons (9-10 g of peanut butter; approximately 2 g of peanut protein)

a. Measure 2 teaspoons of peanut butter and slowly add 2 to 3 teaspoons of hot water.

b. Stir until peanut butter is dissolved, thinned, and well blended.

c. Let cool.

d. Increase water amount if necessary (or add previously tolerated infant cereal) to achieve consistency comfortable for the infant.



Option 3: Smooth peanut butter puree, 2 teaspoons (9-10 g of peanut butter; approximately 2 g of peanut protein)

a. Measure 2 teaspoons of peanut butter.

b. Add 2 to 3 tablespoons of pureed tolerated fruit or vegetables to peanut butter. You can increase or reduce volume of puree to achieve desired consistency.

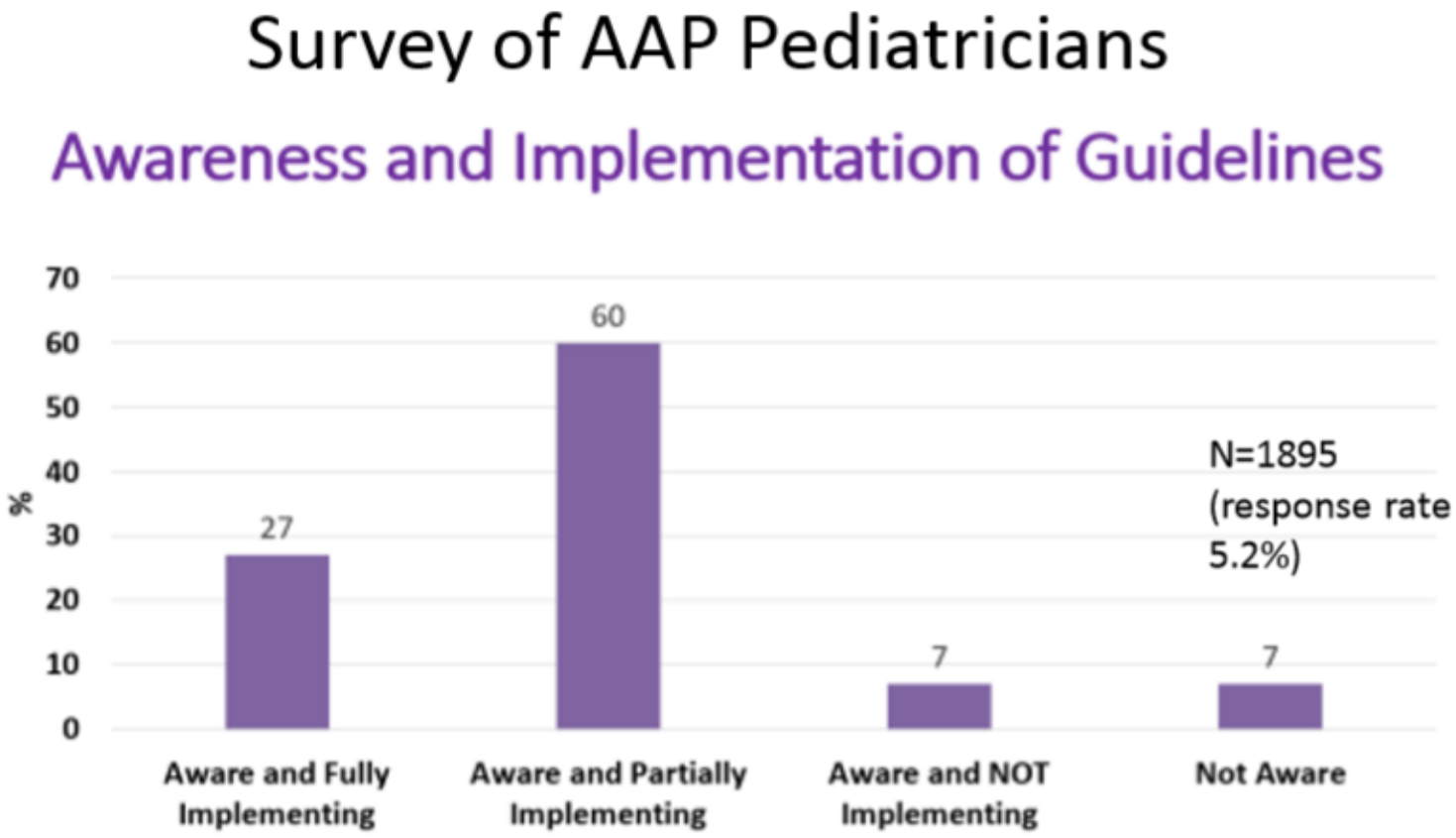
Option 4: Peanut flour and peanut butter powder, 2 teaspoons (4 g of peanut flour or 4 g of peanut butter powder; approximately 2 g of peanut protein)

Note: Peanut flour and peanut butter powder are 2 distinct products that can be interchanged because they have a very similar peanut protein content.

a. Measure 2 teaspoons of peanut flour or peanut butter powder.

b. Add approximately 2 tablespoons (6-7 teaspoons) of pureed tolerated fruit or vegetables to flour or powder. You can increase or reduce volume of puree to achieve desired consistency.

Guideline Implementations



Gupta R, Abstract 258 “Implementation, Practices, and Barriers to the 2017 Peanut Allergy Prevention Guidelines Among Pediatricians. AAAAI 2019

Guideline Implementations

Survey of AAAAI Allergists

Responses	N = 834
I am aware and am using the Guidelines as published and rarely deviate from any part	62%
I am aware and am using only parts of the Guidelines	33%
I am not aware of the Guidelines	3%
Responses*	N = 259
I consider additional factors (e.g., family history)	48%
I conduct a SPT in children without severe eczema or egg allergy	43%
I conduct an OFC when the Guidelines recommend home introduction or an in-office feeding	31%
I conduct an IgE test in children without severe eczema or egg allergy	22%
I use different peanut wheal size thresholds than in the Guidelines	21%

Johnson J, Oral Abstract 2608 “Implementation of the 2017 Addendum Guidelines for Peanut Allergy Prevention Among AAAAI Allergists and Immunologists” AAAAI 2019

Feasibility of Early Peanut Introduction

In case parents are asking, infants doing early introduction generally have:

-No choking episodes (whole peanut avoided)

-Easily achieved weekly target doses (6 g peanut protein)

-No impact on duration/characteristics of breastfeeding

-No impact on height, weight, BMI

Bell et al, Int. J. Environ. Res. Public Health 2018

Barriers to Early Peanut Introduction

- Finding the right peanut product that is age appropriate
- Misinformation and/or conflicting medical advice
- Fear of introducing allergenic food at home
- Other family members at home with peanut allergy

What barriers are you all hearing about from families when it comes to giving their infant peanut at home?

Take Home Points

- Patients with severe eczema, egg allergy, or both disease are most likely to avoid peanut allergy with early introduction (4-6 months) compared to other risk groups.

- There are multiple food vehicles (ie peanut butter, puffs, and flour) by which to introduce peanut to an infant, and it can be done safely with common products found in the grocery store.

- It is important to discuss perceived barriers to early peanut introduction with families to determine if additional support/guidance is needed.

Q&A