



Case Study: Eosinophilic Esophagitis and Dietary Management Using a Ready-to-Feed Amino Acid-Based Formula

Nourish and Flourish: Advancements in Pediatric Allergy and Growth

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Disclosures



- Honorarium provided by Nutricia
- Consultant Nutricia
- Prollergy, Scientific Advisory Board Member
- ***None pose any conflict of interest for this presentation***

The opinions reflected in this presentation are those of the speaker and independent of Nutricia North America

Learning Objectives



Participants in this activity will learn to:

- Review the use of ready-to-feed (RTF) amino acid-based formula (AAF) and cow's milk-free diet in a patient with eosinophilic esophagitis (EoE).
- Identify atopic disease, poor weight gain, and pediatric feeding disorder as potential red flags for EoE.
- Understand the benefits of multidisciplinary care in EoE.

Case JB: Nutrition and Medical History

Initial nutrition visit at age 15 months



- Male, born full term w/o complications
 - ▣ History of atopic dermatitis
 - Treated with topical steroids
 - ▣ Family hx: Cousin with CF, father with lactose intolerance
- Breastfed exclusively until 6 months
 - ▣ Introduction of solids at 6 months
- Poor weight gain identified at 9-month well visit

GI work-up @ OSH

- negative sweat test
- negative stool studies
- CBC WNL except elevated eosinophils
- UA WNL
- Lactulose RX for constipation
- Cyproheptadine RX

Case JB: 15-month-old with poor growth



Initial nutrition visits: (age: 15 and 21 months)

- Complaints of poor appetite
 - “Never hungry, a few bites and done”
- Food variety: accepts foods from all food groups
- Nursing 3x/day, mother wishes to wean. Refuses cow's milk.
- Recently started day care

21 months	Z-score
Weight	-3.21
Length	-2.0
Weight for Length	-3.18

Severe Protein-Calorie Malnutrition

Case JB: Initial Visit Recommendations

Age 15 to 22 months



Nutrition:

- Structured meal and snack routine & division of responsibility in feeding
- Cow's milk protein-based oral supplement (30 kcal/fl oz), after solids at meals
- Added fats
- Referral to Multidisciplinary Growth and Nutrition Program

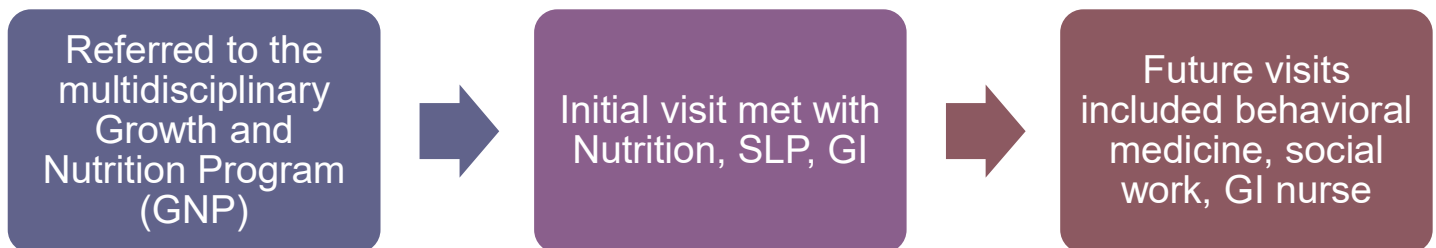
GI Consultation at BCH:

- Cyproheptadine prescribed, but often refused
- Celiac screen negative

GNP (Growth and Nutrition Program) Course of Care

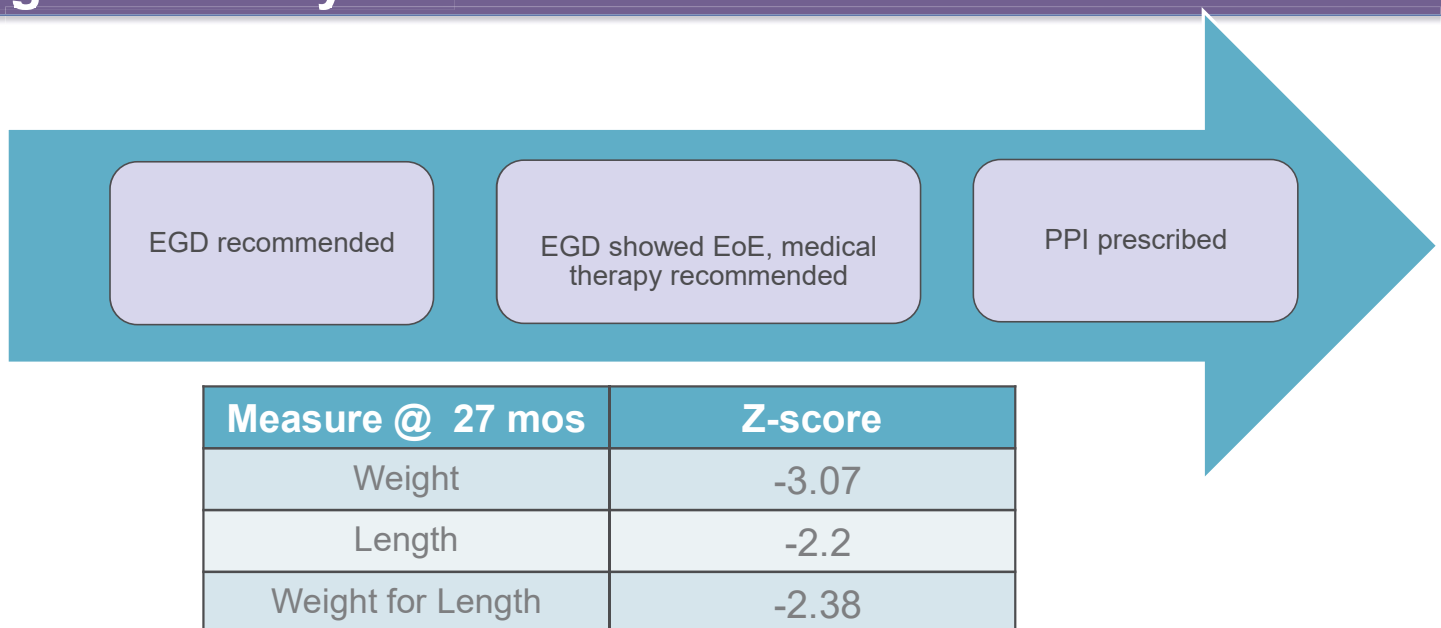


Initial visit and ongoing care



SLP = Speech-Language Pathologist; GI = Gastroenterology

GNP Course of Care Age 2 to 2.25 years



Moderate Protein-Calorie Malnutrition

EGD = upper endoscopy; EoE = eosinophilic esophagitis; PPI = proton pump inhibitor

Dietary management considerations and potential contraindications



- Pediatric Feeding Disorder (PFD)
- Malnutrition
- Existing IgE-mediated food allergies
- Disease Severity
- Number of Endoscopies
- Previous Therapies
- Family Dynamics
- Financial Resources
- Quality of Life



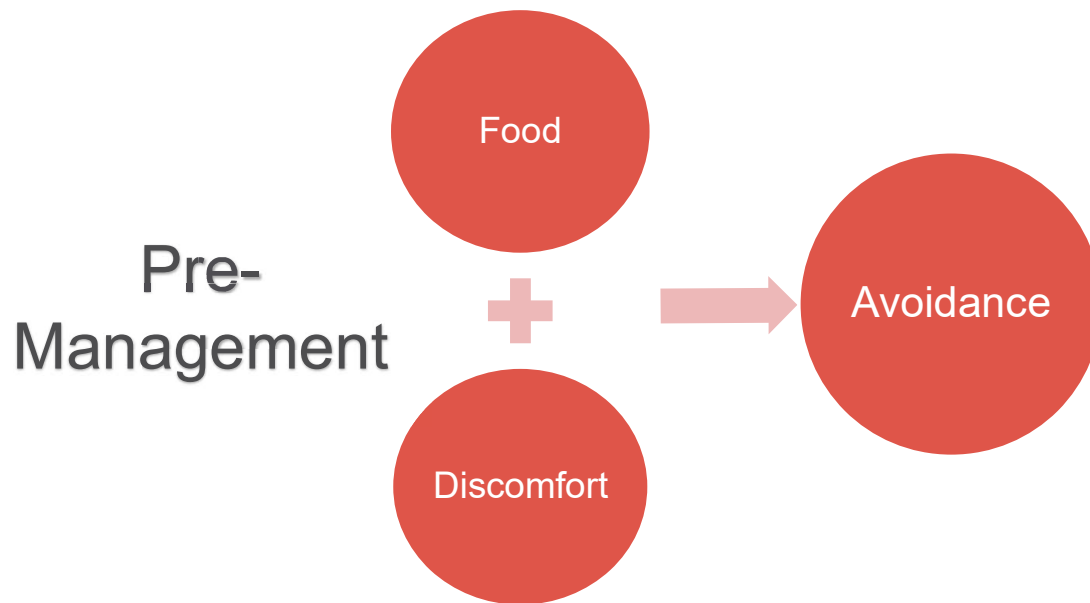
Dietary management considerations and potential contraindications



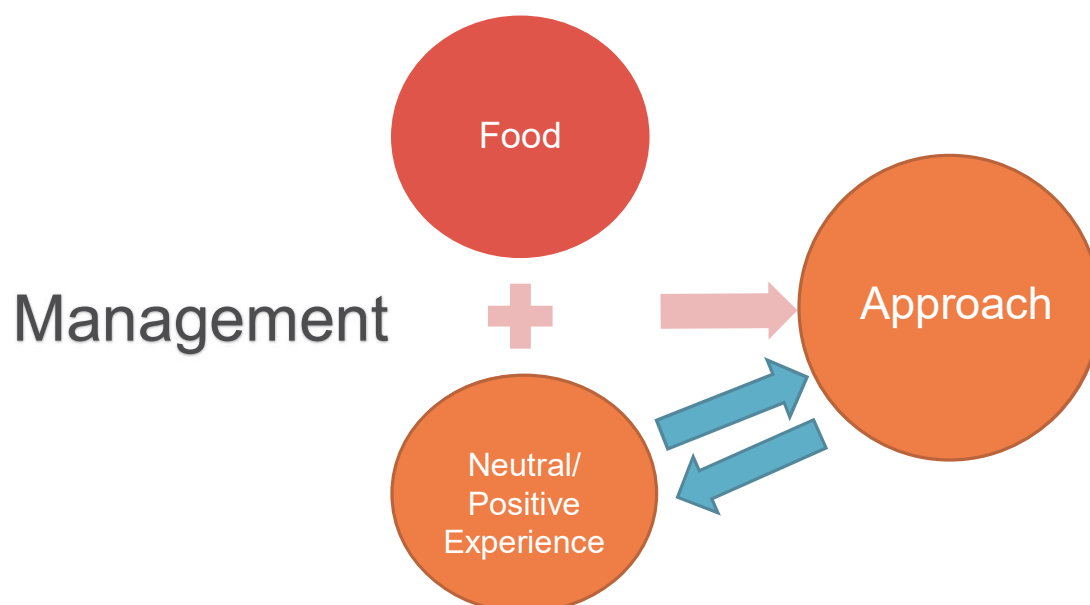
- **Pediatric Feeding Disorder (PFD)**
- **Malnutrition**
- Existing IgE-mediated food allergies
- Disease Severity
- Number of Endoscopies
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Food Aversion and Learning



Food Aversion and Learning



JB GNP Course of Care

Age 2.25 to 3 years



**CMP-based
formula**

PPI refused → Rx oral
swallowed steroid

Admitted for NGT
feedings → poor tolerance

Admitted for
G tube placement

**Continues on
Mometazone**

CMP = cow's milk protein; PPI = protein pump inhibitor; Rx = prescription; NGT = nasogastric tube; G tube = gastrostomy tube

JB GNP Course of Care

Age 3 to 4 years



Continued vomiting →
changed to RTF AAF.
No diet restrictions.

Vomiting persists with
decreased frequency,
refusing Mometasone.

Milk-free diet + AAF
via G tube.
Cyproheptadine via G
tube.

Measure (39 months)	Z-score
Weight	-0.73
Height	-1.3
BMI	-0.44

Without Malnutrition

RTF = ready to feed; AAF = amino acid-based formula; G tube = gastrostomy tube

Growth Pattern: JB

Measure	21 mos. pre Dx	26 mos. (newly diagnosed EoE)	34 mos. (NGT feeds) Pre-G tube	36 mos. Pre-AAF	39 mos. (3 mos. s/p use of AAF and milk-free diet)
Weight (%ile*, Z-Score)	-3.21	-3.72	5 th , -1.64	21 st , -0.81	23 rd , -0.73
Length or Height	-2.0	-2.4	2 nd , -2.07	2 nd , -2.15	13 th , -1.3
WT/LT or BMI	-3.18	-2.63	43 rd , -0.16	85 th , 1.02	49 th , -0.44

*If <1st %ile only Z score noted

** except with accidental dairy ingestion


Persistent vomiting


Vomiting resolved**

Dx = diagnosis; EoE = eosinophilic esophagitis; AAF = amino acid-based formula; G tube = gastrostomy tube

Ongoing Care

Multidisciplinary

Referred to multidisciplinary EGID clinic

Continues cow's milk-free diet

Continues to receive AAF and cyproheptadine via G tube

WNL EGD on milk-free diet

Feeding therapy, slow improvement in oral intake and gradual decrease in G tube feeding volume

EGID = eosinophilic gastrointestinal disorder; AAF = amino acid-based formula; WNL = within normal limits; EGD = upper endoscopy; G tube = gastrostomy tube

Thank you!

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