



## Neocate® Junior helps maintain adequate nutritional status despite formula supply difficulties during an elimination diet for EoE

## PATIENT HISTORY:

Patient DH is a three-year-old male with eosinophilic esophagitis (EoE) and immunoglobulin E- (IgE) mediated food allergy. He has a history of allergic proctocolitis as an infant. He was breastfed on maternal milk- and soy-restricted diet and supplemented with extensively hydrolyzed casein formula (eHCF) when his mother returned to work at three months postpartum. He displayed some oral aversions as an infant, thought to be related to his concomitant IgEmediated egg allergy. But when his feeding delays persisted past his first birthday, DH was referred to the pediatric gastroenterologist, where he had an endoscopy with biopsies and was diagnosed with EoE at 14 months of age.

## **NUTRITIONAL MANAGEMENT:**

DH's caregivers considered his EoE management options, which included dietary antigen elimination, high-dose proton pump inhibitor, or swallowed topical steroids. His parents elected dietary management. The registered dietitian (RD) provided education to the family on eliminating cow milk, egg, wheat, and soy (the four-food elimination diet -FFED), and he was placed on a plant-based pediatric formula (PBF) to replace eHCF (as this is a source of cow milk).

DH returned for an endoscopy 12 weeks after following the FFED + PBF. Despite the diet elimination, he, unfortunately, had persistent eosinophilic inflammation in his esophagus indicative of additional triggers. Because legumes can be a common provocative food in EoE, the team decided to restrict all legumes from his diet and return for a follow-up endoscopy in 12 weeks. At that time, the PBF (which contained legume/pea protein) was a predominant nutrition source in his diet, providing 30% of his estimated calorie needs and 90% of his estimated protein requirement. To ensure nutritional adequacy and avoid pea protein, the RD recommended replacing PBF with an amino-acid-based formula (AAF).

In February 2022, only four weeks into his trial on AAF and legume restriction, DH's AAF was recalled due to safety concerns. Without AAF, his diet was deficient in calories, protein, and micronutrients, which could not be replaced with milk alternatives alone. He urgently required a safe AAF and was placed on Neocate Junior® with prebiotic fiber as this was readily available. DH enjoyed the flavor varieties offered by Neocate Junior and was able to continue his diet without interruption. He drank Neocate Junior with meals, consuming 8 fl oz of 30 kcal/oz formula, three times daily. His follow-up endoscopy was normal, indicating that his FFED minus legumes and supplemented with AAF, was effective management for his EoE.



**Neocate® Junior** 

## **CONCLUSION:**

This case illustrates the important role of hypoallergenic AAF in EoE, where legumes are often a trigger; therefore, PBF was not a suitable substitute for AAF. During the product recall leading to a national formula shortage in 2022, this patient was able to maintain his growth and nutritional status with the use of Neocate Junior.

How Neocate product was used:

Allergic signs/symptoms & conditions present:



Eosinophilic Esophagitis (EoE)

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The opinions expressed are those of the author of this case study and not necessarily reflective of the views of Nutricia North America. Formula choices were made independently prior to the author's development of this patient case report.

Neocate® is a family of hypoallergenic, amino acid-based medical foods and is intended for use under medical supervision Neocate® Junior is indicated 2 for the dietary management of cow milk allergy, multiple food allergies and related GI and allergic conditions, including eosinophilic esophagitis, food protein-induced enterocolitis, short bowel syndrome, malabsorption, and gastroesophageal reflux related to food allergies.

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