

## Transition to Peptide Based Formula is Associated with Greater Tolerability and Reduction in Healthcare Utilization in Children Receiving Enteral Nutrition

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JPEN March 2021: 45(S1): S15-S16.

### Purpose:

To assess GI tolerance and health care utilization in children on home enteral nutrition (HEN) receiving peptide-based diets (PBD). Not all patients are able to tolerate standard polymeric formula (SPF), which often leads to malnutrition and gastrointestinal (GI) distress. Use of peptide-based diets (PBD) may provide a benefit; however, there remains a paucity of data in the pediatric population.

### Methods:

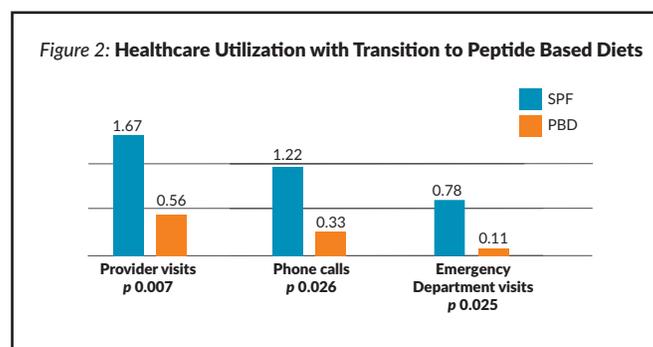
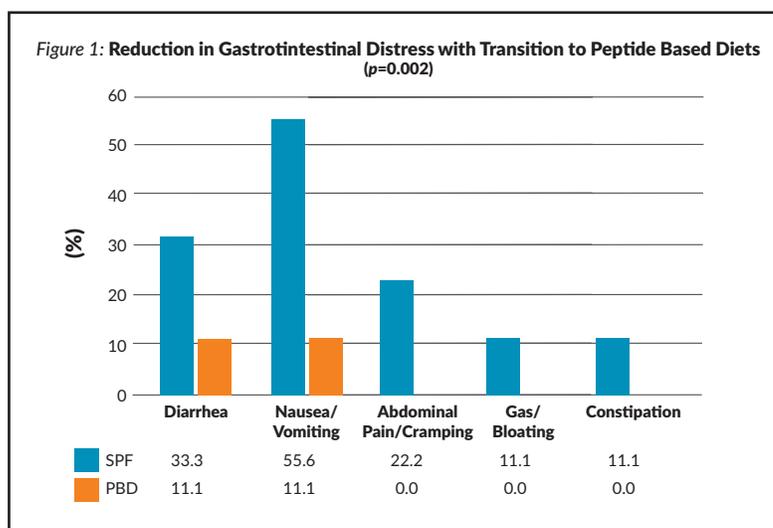
Retrospective review of electronic medical records of children receiving EN between October 2015 and October 2019. Children were included who were on PBD as initial formula or switched to PBD from SPF and consumed for at least 4 weeks.

### Results:

30 children < 18 years at the time of EN initiation were taking PBD. Nine patients transitioned from SPF, and 21 patients were started directly. Median duration on PBD was 30.7 (4.4–242.7) weeks and average daily calories estimated at the time of PBD initiation 64.81 ± 27.93 kcal/kg/d. In the group initiated on PBD (n = 21) duration of PBD was 37 (7.7–242.7) weeks with a primary indication of malnutrition. Overall PBD in this group was well tolerated with no complaints of gas, bloating, constipation, or abdominal pain and/or cramps. Nine percent of patients reported diarrhea and 47% nausea. This group averaged 1.33 ± 1.74 phone calls, 0.09 ± 0.30 emergency room visits, and 1.04 ± 1.35 provider visits for management of HEN during PBD duration. In the switch group, the leading reason for transition to PBD was intolerance to SPF (66.7%) followed by not achieving nutritional goals (22%). Patients were on SPF for average of 4.4 (1–151) weeks. In patients transitioned to PBD, symptoms of SPF intolerance resolved in 66.7% and improved in 33.3%. Patients were able to meet calorie goals on PBD compared to SPF (94.8% ± 8.18 vs. 73.3% ± 25.09; p-value 0.05). Moreover, patients gained more weight while on PBD compared to SPF (change in WAZ +0.42 ± 1.33 vs. +0.08 ± 0.85, p-value 0.26). Health care utilization also declined after transition to PBD: mean number of emergency room visits (0.78 ± 1.09 to 0.11 ± 0.33, p-value 0.025), mean number of provider visits (1.67 ± 1.32 to 0.56 ± 0.73, p-value 0.007), and mean number of phone calls (1.22 ± 1.39 to 0.33 ± 0.50, p-value 0.026).

### Conclusion:

- PBD was well tolerated and resulted in a significant reduction of health care utilization in children intolerant to SPF.



This study was funded by Nestlé Health Science. Abstract Summary Prepared by Nestlé Health Science.

The published abstract can be accessed at: <https://aspenjournals.onlinelibrary.wiley.com/toc/19412444/2021/45/S1>

Summary prepared by Nestlé Health Science