STUDY SUMMARY

Real-World Evidence of Treatment, Tolerance, Healthcare Utilization and Costs Among Postacute Care Adult Patients Receiving Enteral Peptide-Based Diets in the United States

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Background:

Enteral tube feeding (ETF) is used to help meet nutritional requirements in patients unwilling or unable to achieve adequate intake. Gastrointestinal (GI) intolerance is characterized by one or more symptoms of nausea, vomiting, bloating, constipation or diarrhea, and can interrupt feeding, reducing the rate or amount of nutrients delivered. This is associated with reduced patient quality of life and increased risk for malnutrition. Semi-elemental, peptide based (PB) ETF formulas are designed to enhance digestion and absorption and can help improve GI tolerance in patients at risk or experiencing GI intolerance. PB ETF have been shown to be more efficacious and better tolerated by patients in the post-acute care setting, compared with standard whole protein formulas.

Objective:

Describe the demographic, clinical and treatment characteristics of 100% whey protein peptide-based (w-PB) ETF in adults in the post-acute care setting and assess tolerance and frequency of GI intolerance-related adverse events before and after initiation of w-PB ETF.

Methods:

Medical claims data from the Decision Resources Group (DRG) Real World Evidence Data Repository US database were obtained for this study. Adult patients (> 18 years of age) who received w-PB ETF (Peptamen®) formulas during the period of Q1-2013 through Q4 -2017, following hospital discharge, were included. Patient data was collected for the time period of up to one year after initiation of w-PB ETF formulas. Pre index period is defined as the one-year period before product was taken for the first time (index) and post index for the one year after the index date. Conditions monitored included diseases of the digestive system, endocrine nutrition and metabolic diseases, diseases of the respiratory system and diseases of the circulatory system, among others.

Results:

A total of 1022 adult patients were included in the study with an average age of 47.5 years, 54% women. The mean Charlson comorbidity score was 3.47.

The most common underlying medical condition included diseases of the digestive system, endocrine nutrition and metabolic diseases, diseases of the respiratory system, diseases of the circulatory system, diseases of the nervous system and mental/behavioral/neurodevelopmental disorders.

Across all study populations, there was a statistically significant improvement in GI tolerance after initiation of w-PB ETF, including pre and post index changes, decrease in one or more intolerance events and decrease in healthcare utilization.

Number of Adult Patients Experiencing Intolerance Events, Preindex and Postindex:

Number of intolerance events experienced	Adult Patients receiving w-PB ETF (n=1022)		
	Preindex, n (%)	Postindex, n (%)	p*
0	418 (40.9)	601 (58.8)	<.001
1	306 (29.9)	239 (23.4)	.003
2	171 (16.7)	124(12.1)	.005
3	92 (9.0)	40 (3.9)	<.001
4	32 (3.1)	17 (1.7)	.03
5	3 (0.3)	1 (0.1)	.3
Any intolerance events experienced			
NO	418 (40.9)	601 (58.8)	<.001
YES	604 (59.1)	421 (41.2)	<.001

w-PB ETF, 100% whey-protein peptide-based enteral tube feeding.
***X^2 test (2 degrees of freedom), α = .05 level of signficance.**

Discussion:

This data indicates that utilization of w-PB ETF leads to a statistically significant improvement in GI tolerance compared with standard ETF in clinical practice in patients in the post-acute care setting.

Conclusion:

Use of w-PB ETF formulas is a valuable treatment option for those patients who are at high risk of GI intolerance. GI intolerance leads to frequent feeding interruptions and therefore a reduction in nutrient delivery, which could lead to malnutrition. Malnutrition is associated with poor clinical outcomes, increased healthcare utilization and increased mortality.

Study Summary Prepared by Nestlé Health Science.

The complete study can be accessed at:

https://aspenjournals.onlinelibrary.wiley.com/doi/full/10.1002/jpen.2074

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