

# whey better nutrition starts with Peptamen®

# **Better GI Tolerance and Glycemic Control**

is associated with use of Peptamen® Formula in Mechanically Ventilated, Enterally Fed Critically III Patients

Mechanically ventilated enterally fed patients who receive Peptamen® formulas have significantly lower prevalence of GI and glucose intolerance, as compared to those who receive standard formulas & other peptide-based formulas

As compared to the use of **standard formulas**, mechanically ventilated patients who receive Peptamen® formulas experience significantly better outcomes:



**LOWER** odds of GI intolerance



**LOWER** odds of GLUCOSE intolerance

As compared to the use of **other peptide-based formulas**, mechanically ventilated patients who receive Peptamen® formulas experience significantly better outcomes:



**LOWER** odds of GI intolerance



LOWER odds of GLUCOSE intolerance



LOWER odds of MORTALITY

### **USE UNDER MEDICAL SUPERVISION.**

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## **Abstract Study Summary**

# Clinical Benefits Associated with Use of Peptide-Based Enteral Tube Feeding Formulas in Mechanically Ventilated Adult ICU Patients

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### **Background:**

More than 5 million patients are admitted to US intensive care units (ICUs) yearly, with approximately 38.9% requiring mechanical ventilation (MV). Critical Care Guidelines suggest enteral tube feeding (ETF) if duration of MV > 72 hours. Many of these patients experience gastrointestinal (GI) and/or glucose intolerance, associated with decreased ETF delivery and worsened clinical outcomes. Nutritionally complete hydrolyzed 100% whey protein ETF (WPBD) was developed for more efficient digestibility.

### **Objective:**

The primary objective of this retrospective, cross-sectional real-world observational analysis was to compare characteristics and associations of ETF with clinical outcomes of GI and glucose intolerance in adult MV patients in the ICU receiving WPBD, other peptide-based formulas (OPBD) or intact standard ETF (SETF).

### **Methods:**

Data of adult critically ill mechanically ventilated patients who received ETF at least 3 of 5 consecutive days was collected through PINC® AI Healthcare Data for the period of 2017-2021. Patient characteristics and clinical outcomes were compared between those who received WPBD (Peptamen® formulas), OPBD or SETF.

### **Results:**

There were 12,887 patients from 53 US hospitals included in this study (3,004 WPBD, 3514 OPBD and 6369 SETF). Patients received ETF for a mean of 8.3 days and stayed in the ICU for a mean of 14.7 days. Comparing WPBD to OPBD: odds of GI intolerance was 25% lower, glucose intolerance 47% lower and mortality 24% lower for WPBD recipients (each p < .0001). Comparing WPBD to SETF, odds of GI intolerance were 20% lower (p=.001) and glucose intolerance 15% lower (p=.06) in the WPBD group.

Table 1: Clinical outcomes among mechanically ventilated adult ICU patients receiving ETF formulas

Results	GI Intolerance	Glucose Intolerance	Mortality
Prevalence (%)	WPBD: 12.9%	WPBD: 8.7%	WPBD: 29.5%
	OPBD: 18.0%*	OPBD: 15.9%*	OPBD: 35.0%*
	SETF: 14.7%†	SETF: 10.3% <sup>†</sup>	SETF: 19.8% <sup>†</sup>
Unadjusted OR (95% CI)	WPBD vs (ref OPBD): 0.68 (0.59 - 0.77)*	WPBD vs (ref OPBD): 0.50 (0.43 - 0.59)*	WPBD vs (ref OPBD): 0.78 (0.70 - 0.86)*
	WPBD vs (ref SETF): 0.86 (0.76 - 0.98) <sup>†</sup>	WPBD vs (ref SETF): 0.82 (0.71 - 0.96) <sup>†</sup>	WPBD vs (ref SETF): 1.70 (1.54 - 1.88) <sup>†</sup>
Adjusted OR (95% CI) ††	WPBD vs (ref OPBD) <sup>1</sup> : 0.75 (0.65 - 0.87)*	WPBD vs (ref OPBD) <sup>1</sup> : 0.53 (0.44 - 0.63)*	WPBD vs (ref OPBD) <sup>1</sup> : 0.76 (0.68 - 0.85)*
	WPBD vs (ref SETF) <sup>2</sup> : 0.80 (0.70 - 0.91) <sup>†</sup>	WPBD vs (ref SETF) <sup>2</sup> : 0.85 (0.72 - 1.01)	WPBD vs (ref SETF) <sup>2</sup> : 1.60 (1.43 - 1.78) <sup>†</sup>

Abbreviations:

Enteral Tube Feeding (ETF); 100% whey, peptide-based (WPBD); other peptide-based diets (OPBD); intact-protein standard ETF formulas (SETF); gastrointestinal (GI); odds ratio (OR); confidence interval (CI)

\*WPBD vs OPBD, p< .05; †WPBD vs SETF, p< .05

\*\*Adjusted for demographics, medications, hospital and clinical characteristics

### **Conclusions:**

- Better GI tolerance and glycemic control were associated with WPBD relative to OPBD and SETF usage in ICU patients on MV
- Use of 100% whey peptide-based formulas is a strategy to help minimize GI and glucose intolerance and may clinically benefit patients mechanically ventilated in the ICU, helping to facilitate adequate and optimal delivery of ETF

**Journal Link to Abstract S92-S93:** 

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<sup>&</sup>lt;sup>1</sup> Adjusted OR from regressions including all 3 ETF cohorts in which OPBD is used as the reference group.

<sup>&</sup>lt;sup>2</sup> Adjusted OR from regressions including all 3 ETF cohorts in which SETF is used as the reference group.