

PROVIDING THE RIGHT ENTERAL NUTRITION AT THE RIGHT TIME

INSTABILITY OF PATIENT

CRITICAL

STABLE

HOSPITAL

SETTING

HOME



A protein intake higher than 1.2 g/kg/day reduces mortality¹. Try **Peptamen® AF** formula to stabilize the patient, and switch to **Novasource® GI Advanced**, a **new** high calorie, high protein formula which contains PHGG, soluble fiber, to improve outcomes.



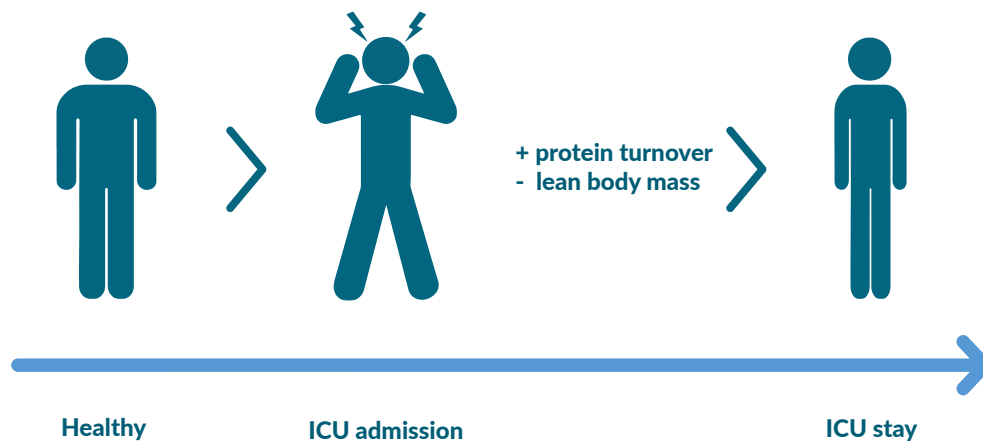
NestléHealthScience

PROVIDING NUTRITION IN THE ICU IS ESSENTIAL TO HELP PATIENT OUTCOMES

Patients in the ICU are at risk of developing malnutrition.

There is a greater risk of mortality in critically ill patients who do not receive enteral nutrition within the first 24 hours².

Deferring enteral nutrition (EN) is far too common: **40% to 60% of eligible patients do not receive EN within 48 hours of admission to the ICU³.**



Early energy deficiency* should be limited

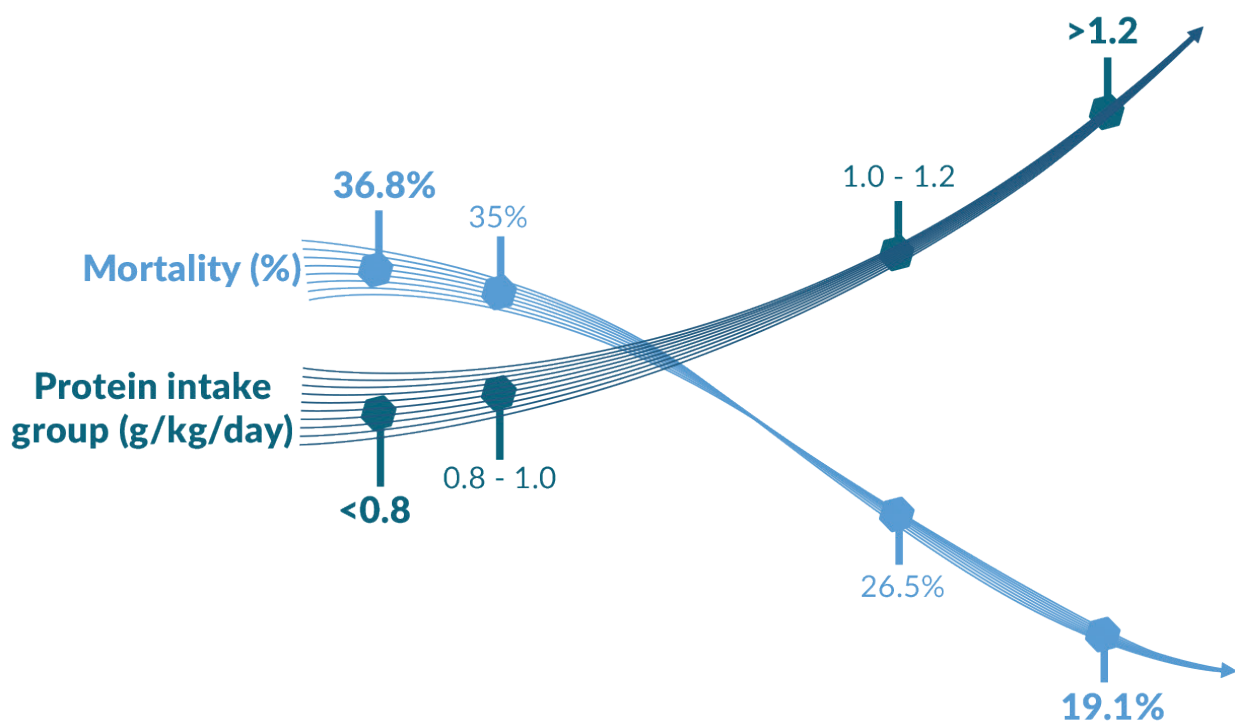
The protein needs are increased by hypercatabolism, which in turn exceeds the anabolic capacities of the patient's body

Inadequate provision of nutrition in ICU patients is associated with increased overall complications, prolonged length of stay (LOS), and increased mortality^{2,4}.

*energy need minus energy supply, cumulated

NUTRITION RECOMMENDATIONS ARE EVOLVING SPECIFICALLY WITH DELIVERING PROTEIN IN THE ICU

ICU patients need higher protein amounts. Current recommendations are 1.2 - 2.0g/kg/day⁵. Achieving protein and energy goals reduces mortality and can improve outcomes¹.



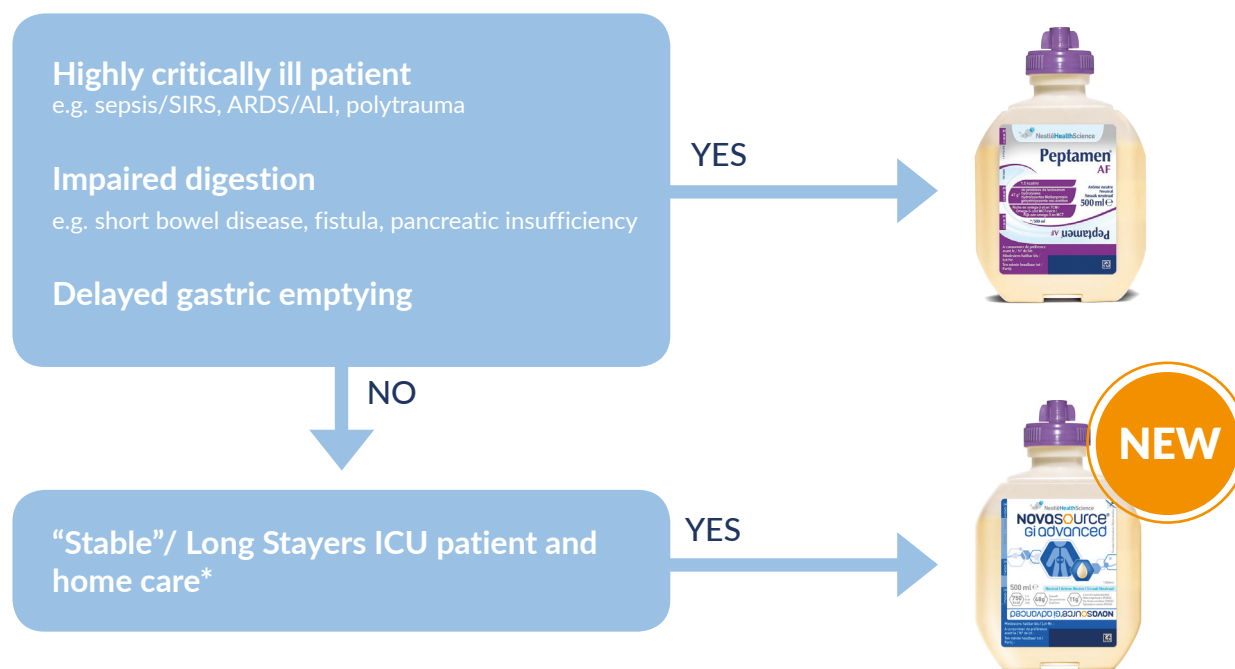
Hospital mortality for all non-septic and non-overfed patients per protein intake group

Prescribing the right nutrition from the start is key to improve outcomes.

In the ICU setting, a well-tolerated, high-caloric, protein-rich enteral nutrition may be beneficial.

A DEDICATED PORTFOLIO FOR THE ICU

Patient selection guide



	Energy kcal	Protein %	Lipid %	Carbo-hydrate %	Fiber g/l	EPA/DHA g/l	Omega 6:3	Osmolarity	Packaging
Peptamen® AF	1.5	25% (47g/500ml) Hydrolyzed whey	39% (33g/500ml) (50% MCT)	36% (68g/500ml)	None	2.4g/l	1.8:1	380	SMARTFLEX® semi flexible collapsable bottle
Novasource® GI Advanced	1.5	25% (48g/500ml) 80% casein 20% whey	30% (24% MCT)	43%	PHGG 22g/l (2%)	0.6g/l	3:1	423	SMARTFLEX® semi flexible collapsable bottle

Achieve energy and protein goals for ICU patients with Peptamen® AF & Novasource® GI Advanced

Weight	Energy needs in acute phase KG =bodyweight	Energy needs in recovery / stable phase		Protein needs	
		25 kcal/kg	30 kcal/kg	1.2 g/kg	1.5 g/kg
kg	kcal/day	kcal/day		g	
40 - 50	800 - 1000	1000 - 1250	1200 - 1500	48 - 60	60 - 75
50 - 60	1000 - 1200	1250 - 1500	1500 - 1800	60 - 72	75 - 90
60 - 70	1200 - 1400	1500 - 1750	1800 - 2100	72 - 84	90 - 105
70 - 80	1400 - 1600	1750 - 2000	2100 - 2400	84 - 96	105 - 120
80 - 90	1600 - 1800	2000 - 2250	2400 - 2700	96 - 108	120 - 135
90 - 100	1800 - 2000	2250 - 2500	2700 - 3000	108 - 120	135 - 150

*all other situations non mentioned above except for renal insufficiency with creatinine < 30ml/min without kidney dialysis

BENEFITS OF PARTIALLY HYDROLYZED GUAR GUM IN THE NEW NOVASOURCE® GI ADVANCED

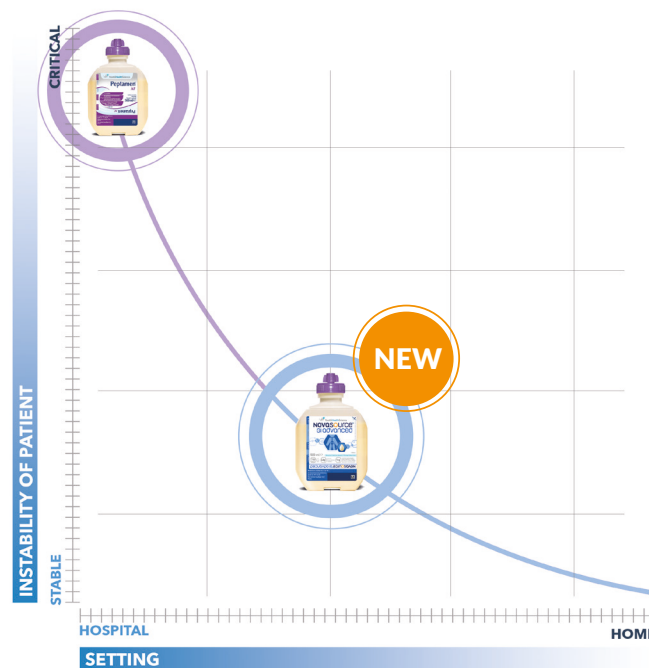
- Patients receiving enteral nutrition can experience diarrhea approximately 67% of the time⁶.
- Partially hydrolyzed guar gum has been shown to reduce diarrhea in the following patient groups:
 - Intensive care unit patients⁷
 - Septic patients⁸
 - Surgical and medical patients⁹
- Consensus statement recommendation from ESPEN consensus group for PHGG.
- PHGG plays a role in intestinal regulation by: delaying glucose absorption, increasing transit time¹⁰, and being highly fermentable.

Therefore the beneficial effects of PHGG are:



SOLUTIONS TO IMPROVE THE CONDITION OF CRITICALLY ILL PATIENTS

- Patients in the ICU are at risk of developing malnutrition. Receiving enteral nutrition within the first 24 hours is key to improve outcomes².
- Achieving energy and protein goals together reduces mortality¹.
- Current recommendations for protein delivery are of 1.2 to 2.0g/kg/day⁵.
- Two formulas help meet protein and energy needs of ICU patients:



Use Peptamen® AF and Novasource® GI Advanced for your next ICU patient

*all other situations non mentioned above except for renal insufficiency with creatinine < 30ml/min without kidney dialysis

1. Weijs et al. Early high protein intake is associated with low mortality and energy overfeeding with high mortality in non-septic mechanically ventilated critically ill patients. *Critical Care*. 2014;18:701. 2. Doig GS et al. *Intensive Care Med*. 2009;35:2018-2027. 3. Heyland DK et al. *J Parenter Enteral Nutr*. 2010;34:675-684. 4. Villet S et al. *Clin Nutr*. 2005;24:502-509. 5. McClave et al. Guidelines for the Provision and Assessment of Nutrition Support Therapy in the Adult Critically Ill Patient: Society of Critical Care Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.). *JPEN J Parenter Enteral Nutr*. Feb 2016;40(2):159-211. doi 10.1177/0148607115621863. 6. Schneider SM, Hébuterne X. Diarrhée en nutrition entérale. *Presse Méd*. 2003;32:935-941. 7. Rushdi RA et al. Control of diarrhoea by fibre-enriched diet in ICU patients on enteral nutrition: a prospective randomized controlled trial. *Clinical Nutrition*. 2004;23:1344-1352. 8. Spapen H et al. Soluble fibre reduces the incidence of diarrhoea in septic patients receiving total enteral nutrition: a prospective, double-blind, randomized, and controlled trial. *Clinical Nutrition*. 2001;20(4):301-305. 9. Homann et al. Reduction in diarrhoea incidence by soluble fibre in patients receiving total or supplemental enteral nutrition. *Journal of Parenteral and Enteral Nutrition*. 1994;18:485-490. The beneficial effects of PHGG in enteral nutrition in medical and surgical patients. *Clinical Nutrition Supplements*. 2004;1(2):59-62. 10. Lampe JW et al. Gastrointestinal effects of modified guar gum and soy polysaccharide as part of an enteral formula diet. *J Parenter Enteral Nutr*. 1992;16:538-544. 11. Takahashi et al. Influence of partially hydrolyzed guar gum on constipation in women. *J Nutr Sci Vitaminol*. 1994;40:251. Okuba et al. Effects of partially hydrolyzed guar gum intake on human intestinal microflora and its metabolism. *Biosci Biotechnol Biochem*. 1994;58:1364. 12. Alam. Efficacy of partially hydrolyzed guar gum (PHGG) supplemented modified oral rehydration solution in the treatment of severely malnourished children with watery diarrhea: a randomized double-blind controlled trial. *J Health Population Nutrition*. 2015;34:3. 13. Weaver et al. Dietary guar gum alters colonic microbial fermentation in azoxymethane-treated rats. *J Nutr*. 1996;126:1979. Sevinc et al. Improvement of colonic healing by preoperative oral partially hydrolyzed guar gum (Benefiber) in rats which underwent preoperative radiotherapy. *J Drug Targeting*. 2014;22:262. 14. Wells et al. Effect of three liquid diets on cecal bacterial flora and bacterial translocation in mice. *Nutrition*. 1991;7:358. Takahashi et al. Effect of liquid diets with or without partially hydrolyzed guar gum on intestinal function of rats. *Nutr Res*. 1995;15:527.

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