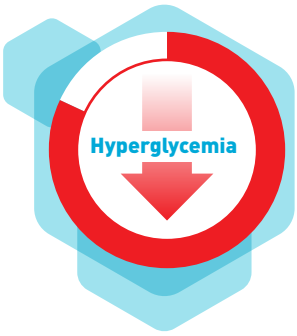
Nestlé HealthScience

The Value of PEPTAMEN® INTENSE

PEPTAMEN® INTENSE, for critically ill patients contributes to reducing clinical burden through high protein delivery whilst not overfeeding and by decreasing the risk of hyperglycemia[1-3]

Using PEPTAMEN® INTENSE, >75% of patients receive ≥80% of their prescribed protein by Day 2, increasing to 83% of patients by day 5.[1] The same study showed that **100%** of ICU patients using PEPTAMEN® INTENSE received **>1.2g protein/kg/day**[1]

Increased protein delivery without overfeeding in the ICU is associated with **accelerated recovery,** home discharge: 19% vs. 7%; p=0.022, **reduced ICU length of stay (LOS),** 10 days vs. 23 days; p<0.001 **and lower mortality,** OR*: 0.42; p=0.013[4-6]



PEPTAMEN® INTENSE decreases the risk of hyperglycemia[3], 30% of hyperglycemic events reduction (above 150mg/dl - 8.3mmol/l) and likely its associated complications.

Improved glycemic control in the ICU is associated with **reduction in mortality** of up to 60%[7]

* OR: odd ratio

BY IMPROVING PATIENT OUTCOMES,

PEPTAMEN® INTENSE CONTRIBUTES TO DECREASE THE ECONOMIC BURDEN

ASSOCIATED WITH PROTEIN MALNUTRITION AND STRESS HYPERGLYCEMIA

By better managing hyperglycemia compared to high protein polymeric formula[3],
PEPTAMEN® INTENSE CAN BE ASSOCIATED WITH REDUCED ICU LOS[8] and **READMISSION[9]** resulting in
COST SAVINGS OF >US$7,000 PER PATIENT*

By better achieving protein targets compared to standard polymeric formula[1],
PEPTAMEN® INTENSE CAN BE ASSOCIATED WITH REDUCED ICU LOS[5], INFECTIONS[10] AND MORTALITY[6]
leading to
COST SAVINGS OF >US$200,000 PER PATIENT*

PEPTAMEN® INTENSE is a ready-to-hang, closed system formula, requiring
LESS NURSING TIME AND LESS FORMULA WASTE COMPARED TO OPEN SYSTEMS[11]

*pending economic model publication

CRITICAL CARE NUTRITION RECOMMENDATIONS

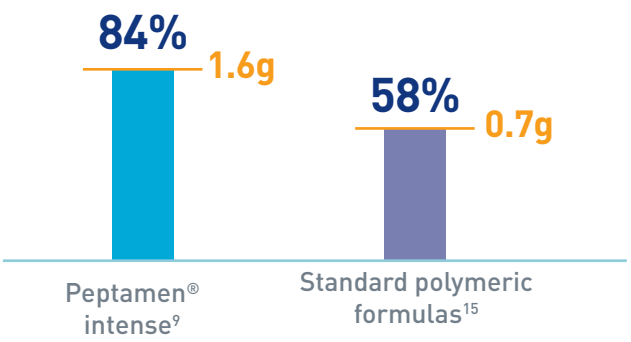
ARE MOVING FROM PURE CALORIE COUNTING TO HIGHER PROTEIN REQUIREMENTS

(>1.2 G/KG PER DAY) without overfeeding the patient with calories in the first 2 weeks of ICU stays[2,12,13]

AVAILABLE ENTERAL NUTRITION FORMULAS CANNOT DELIVER SUFFICIENT PROTEIN

TO MEET THE TARGETS OF CRITICALLY ILL PATIENTS WITHOUT SIMULTANEOUSLY RISKING OVERFEEDING AND HYPERGLYCEMIA[14]

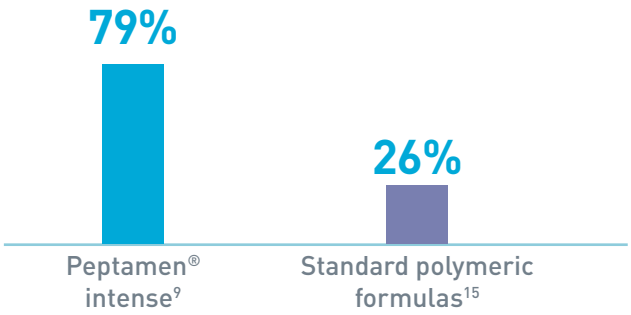
- % of protein received vs. prescribed
- Mean amount of protein received (g) per kg per day



With standard polymeric formulas, **critically ill patients receive only 58% of proteins** prescribed[15]

Also, patients receive an insufficient amount of protein per kg per day compared to the international recommendations[2]

- Average number of patients (%) achieving ≥ 80% protein target



With standard polymeric formulas, **only 26% of nutritionally at-risk patients achieve ≥80% of their prescribed protein and energy goals[15]**

- In order to reach prescribed protein targets, the high volumes of standard polymeric formulas required would simultaneously deliver excessive amounts of carbohydrate and calories, significantly **increasing the risk of overfeeding and associated complications[4,14,16]**

- Since high protein needs are not achieved using standard polymeric formulas, patients' nutrition support **needs to be supplemented with protein modulars which is associated with feed contamination risks[17]**

IN THE CRITICAL CARE SETTING,

NUTRITIONAL DISORDERS CAN DEVELOP RAPIDLY

BECAUSE OF THE METABOLIC DEMANDS OF ILLNESS AND HEALING

GLOBALLY, UP TO 74% OF ICU PATIENTS FAIL TO RECEIVE SUFFICIENT PROTEIN, only **58%** received and energy only 61% received to meet their specific metabolic needs to support recovery[15]

- **MALNOURISHED PATIENTS HAVE INCREASED RATES OF INFECTION[12], ICUAW*,** 25% to 65%[13,18], and **HIGHER MORTALITY[6]** compared with nourished patients, leading to increased mechanical ventilation days[5], 8 days; p>0.001, LOS[5,18] 13 ICU days; p>0.001 and readmissions, 73%[19]

- **IN THE US, MALNOURISHED PATIENTS SPEND 8 MORE DAYS IN HOSPITAL** compared with nourished patients with **HIGHER COSTS,** US$26,944 versus $9,485[20]
- **IN EUROPE, HOSPITAL MALNUTRITION LEADS TO INCREASED HOSPITAL LOS,** 2.4 to 7.2 days and **ADDITIONAL COSTS** up to €5,829/patient[21]

GLOBALLY, HYPERGLYCEMIA OCCURS IN UP TO 75% OF ICU PATIENTS

Hyperglycemic events in critically ill patients are associated with **INCREASED MORTALITY,** aOR**: 1.31–2.85[23,24,] **INFECTIONS** by 2-fold[25], **ICU LOS** by 2 days[8] or 60%[9] and **READMISSIONS** by 37%[9]

- In the US, **TOTAL COSTS PER ICU HYPERGLYCEMIC PATIENT** were estimated at **US$2,832[26]**
- In Europe, **TOTAL COST PER HYPERGLYCEMIC PATIENT** varied from **€7,931 TO €10,569[27]**

*ICUAW: ICU Acquired Weakness
**adjusted odds ratio

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REFERENCES

1. Hopkins B *et al.* Canadian Journal of Dietetic Practice & Research, 2016
2. McClave SA *et al.* JPEN J Parenter Enteral Nutr, 2016
3. Ochoa JB *et al.* Clinical Nutrition Week, 2017
4. Weijs PJ *et al.* Crit Care, 2014
5. Yeh DD *et al.* JPEN J Parenter Enteral Nutr, 2016
6. Nicolo M *et al.* JPEN J Parenter Enteral Nutr, 2016
7. Farrokhi F *et al.* Best Pract Res Clin Endocrinol Metab, 2011
8. Sperry JL *et al.* The Journal of trauma, 2009
9. Adigopula S *et al.* World Journal of Cardiovascular Diseases, 2013
10. Yeh DD *et al.* Nutr Clin Pract, 2017
11. Phillips W *et al.* Nutr Clin Pract, 2013
12. Correia MI *et al.* J Am Med Dir Assoc, 2014
13. Singer P *et al.* Clin Nutr, 2009
14. Taylor S *et al.* Clinical Nutrition ESPEN, 2016
15. Heyland DK *et al.* Clin Nutr, 2015
16. Preiser JC *et al.* Crit Care, 2015
17. Perry J *et al.* Nutr Clin Pract, 2015
18. Ali NA *et al.* Am J Respir Crit Care Med, 2008
19. Christopher K *et al.* Crit Care Med, 2013
20. Corkins MR *et al.* JPEN J Parenter Enteral Nutr, 2014
21. Khalatbari-Soltani S, Marques-Vidal P. Clinical Nutrition ESPEN, 2015
22. Van den Berghe G *et al.* N. Engl. Med, 2001
23. Falciglia M *et al.* Crit Care Med, 2009
24. Krinsley JS *et al.* Critical Care, 2013
25. Philips BJ *et al.* Thorax, 2005
26. Krinsley JS *et al.* Chest, 2006
27. Van den Berghe G *et al.* Crit. Care Med, 2006

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