

Optimizing Nutrition for ICU Patients

The Challenge

Optimal nutrition therapy is a key component of critical care. Yet ICU patients are routinely subjected to the risks of malnutrition, tube malposition and pneumonia.

The large gap between the patient's nutritional needs, prescription and nutritional administration results in inadequate medical nutrient therapy. Monitoring administration is key, to ensure the patient is receiving the required nutrition. [1]



of ICU patients failed to receive at least 80% of their prescribed nutrition [1]

Survival in relation to AdmCal/REE





of ICU patients are more likely to return to the hospital within 30 days [2]



Patient suffering from malnutrition will spend 6 extra days in the hospital and have 3 times increased mortality [1]

Current Solutions

Manual Cleaning, and Bolus Delivery



Blind Feeding Tube Insertions



Standard Peristaltic Feeding Pump



References

- 1. Itai Bendavid, Pierre Singer, Miriam Theilla. NutritionDay ICU: A 7-year worldwide prevalence study of nutrition practice in intensive care. Clinical Nutrition, 2016.
- 2. Su Lin Lim, Kian Chung Benjamin Ong, Yiong Huak Chan, Wai Chiong Loke, Maree Ferguson, Lynne Daniels. Malnutrition and its impact on cost of hospitalization, length of stay, readmission and 3-year mortality. Clin Nutr. 2012 Jun; 31(3):345-50.
- 3. Zusman, O., Theilla, M., Cohen, J. et al. Resting energy expenditure, calorie and protein consumption in critically ill patients: a retrospective cohort study. Crit Care 20, 367 (2016).

Introducing Nutrition Management 2.0™

A comprehensive, guideline-driven approach that unites nutritional assessments with technological innovation to prevent feeding-related complications in critical care.



The **smART+™ Platform** closes the nutritional gap while maximizing the efficacy of nutritional intervention.

smART+™ Platform Answers to ESPEN Guidelines



Continuous monitoring of gastric tube during placement



Feeding tube positioning Feeding auto-paused when tube is out-of-position



Real time reflux detection and redirecting potential aspiration material to the drainage bag



Progression of caloric load over a 3-day period according to ESPEN guidelines



Personalized protein supplementation to achieve delivery of full protein amount



Continuous measurement and presentation of REE data driving adjustment of caloric intake via nutrition amount adjustment

Reference

4. Hoffmann M., C.M. Schwarz, et al. Risks in Management of Enteral Nutrition in Intensive Care Units: A Literature Review and Narrative Synthesis. Nutrients 2021, 13, 82

