# ICU

### **MANAGEMENT & PRACTICE**

INTENSIVE CARE - EMERGENCY MEDICINE - ANAESTHESIOLOGY

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### SPECIAL SUPPLEMENTS CSL Behring Symposium Report

Factor Concentrates in the Perioperative Management of Coagulopathy

**Nestlé Nutrition Institute Symposium Report** The Expanding Boundaries of ICU Nutrition

# Nutrition

New ESPEN Guidelines for Nutrition in the Critically Ill: Help, What Happened!? *M. Casaer, G. Van den Berghe, J. Gunst* 

New Trends in ICU Nutrition, V. Fraipont, J.C. Preiser

Emerging Concepts in Nutritional Therapy for the Critically Ill Child, *N. Mehta* 

Obesity and Nutrition in Critical Illness, *E. Ridley, M. Chapman, K. Lambell, S. Peake* 

Objective Malnutrition Diagnosis and Personalised Nutrition Delivery in the ICU, *P. Wischmeyer, J. Molinger* 

The Role of Speech and Language Therapy Supporting Nutritional Management in ICU, *J. McRae* 



### PLUS

Virtual Reality in the Intensive Care Unit: State of Play and Future Prospects, *V. Beaucote, O. Clovet, A. Esnault, T. Lescot* 

Pre-packed Critical Care Drug Pouch for Acute Patient Care: Consensus, Simulation Testing and Recommendations, *A. Gandhi, W. Chan, C. Meyers, P. Barach, F. Rubulotta* 

Knowledge Transfer to Improve Outcomes in Critically Ill Immunocompromised Patients, *E. Azoulay* 

Challenges in the Management of the Critically Ill Patient, *M. Antonelli* 



## NUTRITION

The critically ill patient is often unable to feed by mouth. This condition, in some patients, can range from days to months. It is imperative that these patients receive macronutrients either through enteral or parenteral nutrition. If they don't, there is a risk of an energy deficit that could lead to loss of lean body mass and subsequently, other adverse outcomes. Muscle wasting and weakness due to lack of nutrition during critical illness also increase the risk of prolonged mechanical ventilation, and a longer period of immobilisation.

Nutrition in the ICU presents a number of challenges for clinicians. There is a wide variation in the type of patients that doctors in the ICU have to deal with from those who have just been through surgery to those admitted because of emergencies, trauma, sepsis or respiratory failure. There are patients who are extremely young to those who are elderly and frail. Each type of patient requires individual assessment and a specific approach. That is the key to nutritional management in the ICU.

Our cover story **Nutrition** discusses the most effective strategies for managing nutrition in critically ill patients and presents an overview of the key guidelines for nutrition management. Our contributors talk about the basic fundamentals of nutritional support for the critically ill and review nutritional goals, daily nutritional requirements, nutritional strategies, indications, contraindications, and the impact of nutrition on patient outcomes.

Michael P. Casaer, Greet Van den Burghe, and Jan Gunst discuss the new ESPEN guidelines for nutrition in critical illness while Vincent Fraipont and Jean-Charles Preiser provide an overview of the new trends in ICU nutrition.

When discussing the need to address nutrition provision in specific patient populations, Nilesh Mehta presents a comprehensive review of the emerging concepts in nutritional therapy for the critically ill child while Emma J. Ridley, Marianne Chapman, Kate Lambell and Sandra Peake talk about the role of nutrition in obese critically ill patients. Paul E. Wischmeyer and Jeroen Moligner highlight the importance of objective malnutrition diagnosis and personalised nutrition delivery in the ICU, and Jackie McRae discusses the role of speech and language therapy for supporting nutritional management in intensive care.

In our Informatics and Technology section, Victor Beaucote, Olivier Clovet, Amaury Esnault, and Thomas Lescot present an overview of the practical uses of virtual reality in the ICU, the benefits it can provide, and future prospects.

In our Matrix section, Ajay Gandhi, Wei Yee Chan, Cheryl Meyers, Paul Barach, and Francesca Rubulotta propose standardisation and consolidation of agreed drugs and equipment into a compact pre-packed critical care drugs pouch for acute patient care.

In our Management section, Élie Azoulay provides an overview on sharing information, improving clinician skills, and transferring knowledge to ICU specialists about the care of immunocompromised patients.

Our interview section features Massimo Antonelli, Professor of Intensive Care and Anesthesiology at Università Cattolica del Sacro Cuore in Rome, Italy. Prof. Antonelli's scientific fields of interest and research include noninvasive ventilation, mechanical ventilation, ARDS, shock, sepsis, and infections. He spoke to ICU Management & Practice about the major challenges in the management of the critically ill patient.

The nutritional status of a critically ill patient can often be difficult to assess. Following a structured approach and determining nutritional requirements based on specific patient characteristics can help improve the delivery of nutrition in the ICU. It is important to understand that poor nutrition can lead to poor outcomes in critical illness. It is time to challenge old-fashioned concepts and to implement nutritional support strategies that can ensure adequate nutritional support in the ICU, promote early mobilisation, improve quality of life and offer better long-term outcomes for the critically ill patient.

As always, if you would like to get in touch, please email JLVincent@icu-management.org.

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