

ICU

MANAGEMENT & PRACTICE



2022

VOLUME 22
ISSUE 2

Sepsis in Critical Care

One Sepsis Fits All? Are There Different Phenotypes of Sepsis? Diagnostic Approaches and Therapies, *A. Edel, S. J. Schaller*

Sepsis in Critical Care: Effective Antimicrobial Strategies in ICU, *G. B. Nair, M. S. Niederman*

The Alphabet Book of Sepsis, *M. Leone*

Challenges in the Haemodynamic Management of Septic Shock, *O. R. Pérez-Nieto, M. A. Ambriz-Alarcón, M. E. Phinder-Puente et al.*

Sepsis Surveillance (Sepsis Sniffer): Where We Are Now and Where We Are Going, *Y. Pinevich, B. W. Pickering, V. Herasevich*

Symmetrical Peripheral Gangrene, *C. B. Noel, J. L. Bartock, P. Dellinger*

ICU Management of the Very Old: The Evidence Base Anno 2022, *H. Flaatten, C. Jung, B. Guidet*

Understanding Carbon Dioxide in Resuscitation *F. S. Zimmerman, G. Pachys, E. A. Alpert, S. Einav*

Sepsis in Critical Care

Sepsis is a leading cause of morbidity and mortality in the intensive care unit. Nearly [14 million adults and 2.5 million children](#) survive sepsis each year worldwide. In addition, sepsis survivors are known to experience poor long-term outcomes and often develop functional limitations thereafter. It is thus evident that the long-term impact of sepsis is an issue that must be addressed.

The diagnosis of sepsis in critically ill patients can be quite challenging. At the same, early identification and treatment of sepsis are associated with improved outcomes. To achieve this, it is important to understand the mechanism of sepsis, improve awareness of post-sepsis complications and expand the use of new and improved diagnostic and therapeutic approaches to improve patient outcomes. There is also a need to improve sepsis diagnosis using biomarkers and to recognise that the sepsis response can involve multiple factors during the disease process. The long-term goal of sepsis management in critical care should be to improve diagnostic accuracy, reduce the time to effective treatment, and optimise the use of antibiotics.

In our latest cover story, **Sepsis in Critical Care**, our contributors highlight the prevalence, characteristics and impact of sepsis in critical care, explore different phenotypes of sepsis and causative factors, and discuss diagnostic approaches and therapies to manage sepsis and its associated complications.

Andreas Edel and Stefan Schaller talk about the different phenotypes of sepsis and provide current research results in relation to an advanced sepsis classification and their implications for new treatment options and research strategies. Girish Nair and Michael Niederman explore optimal management of sepsis in the context of appropriate antimicrobial stewardship and the need for accurate identification of the site of infection, with a focus on the likely pathogens and provision of timely and accurate therapy.

Marc Leone shares the ABCs of sepsis and septic shock based on his clinical experience and choice. Orlando Pérez-Nieto, Mauricio Ambriz-Alarcón, Marian Phinder-Puente and co-authors provide an overview of the haemodynamic management of patients in septic shock and strategies for detection of haemodynamic changes and appropriate therapeutic action to improve prognosis.

Yulia Pinevich, Brian W Pickering and Vitaly Herasevich discuss the importance of timely recognition of sepsis for patient survival and explore opportunities to improve this through the use of sepsis screening tools to improve surveillance and treatment of sepsis.

Christopher Noel, Jason Bartock and Phillip Dellinger provide an overview of the presentation, pathophysiology, and potential treatment options for symmetrical peripheral gangrene and limitations in the current literature and a possible strategy for future study.

In other feature articles, Hans Flaatten, Christian Jung and Bertrand Guidet explore publications concerning the very old ICU patients, focusing on publications from the VIP network on elderly COVID-19 patients. Frederic Zimmerman, Gal Pachys, Evan Alpert and Sharon Einav present an overview of the current knowledge and future research directions for CO₂ measurement and clinical application during cardiopulmonary resuscitation.

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

Jean-Louis Vincent



Jean-Louis Vincent

Editor-in-Chief
ICU Management & Practice
Professor
Department of Intensive Care
Erasmus Hospital
Université libre de Bruxelles
Brussels, Belgium

JLVincent@icu-management.org

[@ICU_Management](#)

INTENSIVE CARE | EMERGENCY MEDICINE | ANAESTHESIOLOGY

icu-management.org  @ICU_Management

ICU

MANAGEMENT & PRACTICE

