



## Antimicrobial Stewardship and Optimizing Antibiotic Dose in Critically Ill Patients

Guest Editor:

**Prof. Dr. Barbara J. Philips**  
Brighton and Sussex Medical  
School, Brighton BN1 9PX, UK

Deadline for manuscript  
submissions:

**30 September 2024**

### Message from the Guest Editor

The escalating crisis of antibiotic resistance, coupled with a decrease in the development of novel antibiotics, demands innovative approaches to improve current antimicrobial prescribing practices. This Special Issue focuses on antimicrobial stewardship and optimizing antibiotic dose in critically ill patients, highlighting the challenges clinicians face in striking the balance between effective therapy and minimizing antibiotic resistance.

In clinical practice, ensuring appropriate antibiotic dosing is essential for therapeutic success in critically ill patients. Critical illness has profound effects on the pharmacokinetics and pharmacodynamics of antibiotics. Patients are at an increased risk of both under- and overdosing of drugs, leading to either therapeutic failure, antibiotic resistance or toxicity. We suggest that the articles submitted to this Special Issue focus on the importance of individualizing antibiotic therapy, developing dynamic prescribing practices, incorporating clinical susceptibility data and employing pharmacokinetic/pharmacodynamic principles for dose optimization.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Nicholas Dixon

School of Chemistry and  
Molecular Bioscience, University  
of Wollongong, Wollongong, NSW  
2522, Australia

## Message from the Editor-in-Chief

There are very few fields that attract as much attention as scientific endeavor related to antibiotic discovery, use and preservation. The public, patients, scientists, clinicians, policy-makers, NGOs, governments, and supra-governmental organizations are all focusing intensively on it: all are concerned that we use our existing agents more effectively, and develop and evaluate new interventions in time to face emerging challenges for the benefit of present and future generations. We need every discipline to contribute and collaborate: molecular, microbiological, clinical, epidemiological, geographic, economic, social scientific and policy disciples are all key. *Antibiotics* is a nimble, inclusive and rigorous indexed journal as an enabling platform for all who can contribute to solving the greatest broad concerns of the modern world.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (General Pharmacology, Toxicology and Pharmaceutics)

## Contact Us

---

*Antibiotics* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/antibiotics  
antibiotics@mdpi.com  
X@antibioticsmdpi