



## Antimicrobial Pharmacokinetics and Pharmacodynamics in Children and in Adults

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### Message from the Guest Editors

Although the antibiotic pipeline has been implemented by new molecules in recent years, therapeutic options for difficult-to-treat infections from germs may still be limited.

The monitoring of plasma concentrations of antimicrobials when compared with the minimum inhibitory concentrations (MICs) for a given pathogen can represent a fundamental tool for the personalization of treatments and in the prevention of the onset of resistant strains.

The setting where TDM can certainly potentially play a crucial role is that of intensive care; in fact, the critically ill patient presents a series of conditions that can modify the PK/PD parameters of antibiotic therapies such as renal insufficiency, which increases the concentration of some molecules, or the hyperfiltration that reduces it; or therapeutic measures such as continuous renal replacement therapy rather than ExtraCorporeal Membrane Oxygenation.

Considering the complexity of the conditions that the clinician has to manage in real life and the fundamental importance that pharmacokinetics and pharmacodynamics play in precision medicine, studies that increase knowledge of this subject are increasingly needed.





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## Editor-in-Chief

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## 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.

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