



Pharmacokinetic/Pharmacodynamic Models of Antibiotics

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Deadline for manuscript
submissions:

closed (31 August 2022)

Message from the Guest Editors

Dear Colleagues,

The pharmacokinetic/pharmacodynamic (PK/PD) models of antibiotics are excellent tools for predicting the impact of humanized doses of drugs, tracking resistance development, or monitoring the efficacy of dose de-escalation/combination therapy over time. While the majority of PK/PD research is focused on antibiotics, and other novel antibacterial agents such as bacteriophages and lysins as well. This issue welcomes the potential topics for this Special Issue include but are not limited to the following topics.

- In vitro or ex vivo dynamic PK/PD models of antibacterial agents
- In vivo PK/PD models of antibacterial agents
- Clinical outcomes research related to PK/PD
- Mathematical models and simulations associated with PK/PD of antibacterial agents
- Application of PK/PD in drug (antibiotic) delivery systems
- Role of PK/PD models in drug (antibiotic) development
- Fundamental concepts of PK/PD modeling
- Dose de-escalation in PK/PD models of antibacterial agents
- Combination therapy and resistance prevention in PK/PD models
- Impact of initial inoculum in PK/PD models of antibacterial agents
- Infectious disease modeling using multiple compartment PK/PD structure





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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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