



Antibiotic Use in *Clostridioides difficile* Infection, Mechanisms of Resistance and Alternative Treatments

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Message from the Guest Editors

Clostridioides difficile is the most common pathogen responsible for hospital-associated diarrhea, with recurrence becoming a serious issue in healthcare institutions due to its evasion of existing treatment strategies. Undoubtedly, the evolution of antimicrobials has altered the epidemiology of *C. difficile*, which is currently regarded as one of the top five urgent antibiotic resistance problems in the United States. *C. difficile* antibiotic resistance mechanisms are constantly changing and influencing the fitness of the pathogen. The mechanisms involved in *C. difficile* resistance to antimicrobials are crucial for changing antibiotic directrices in hospitals, as well identifying alternative treatments and searching for new therapeutic targets to prevent *C. difficile* infection (CDI). So far, various antimicrobial resistance mechanisms have been described in *C. difficile*, which have been associated to metronidazole and vancomycin resistance. This Special Issue welcomes manuscript contributions that advance our understanding of antibiotic resistance in *C. difficile* and alternative CDI therapies.





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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 disciplines 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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