



## Antimicrobial Resistance and Outbreaks Due to Multidrug-resistant Bacteria in Hospitalized COVID-19 Patients

Guest Editor:

### Message from the Guest Editor

**Prof. Dr. Antonella d'Arminio  
Monforte**

1. Icona Foundation, 20142 Milan,  
Italy  
2. Clinic of Infectious Diseases,  
ASST Santi Paolo e Carlo,  
Department of Health Sciences,  
University of Milan, 20142 Milan,  
Italy

Dear Colleagues,

During the ongoing COVID-19 pandemic, antibiotics have been extensively used for the management of hospitalized patients infected with SARS-CoV-2. Unintended consequences of antimicrobial overuse include, among others, the increment of bacterial resistance and the circulation of multidrug-resistant organisms (MDROs). On the other hand, the management of hospitalized SARS-CoV-2 patients increases the risk of outbreak due to MDROs for several reasons, including the increased number of patients, increased length of hospital stay, extensive antibiotic use, lack of infection prevention and control measures and interruption of antimicrobial stewardship programs.

In this Special Issue of *Microorganisms* we would like to review the latest knowledge about AMR rates and in-hospital outbreaks in the COVID-19 setting, with particular regard toward the infection prevention and control (IPC) strategies adopted and the antimicrobial stewardship programs implemented.

Keywords: COVID-19; SARS-CoV-2; antimicrobial resistance; infection prevention and control; antimicrobial stewardship; outbreak; healthcare-associated infections





an Open Access Journal by MDPI

## Editor-in-Chief

### Dr. Nico Jehmlich

Department of Molecular  
Systems Biology, UFZ-Helmholtz  
Centre for Environmental  
Research, 04318 Leipzig,  
Germany

## Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

## 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, PubAg, CAPlus / SciFinder, AGRIS, and other databases.

**Journal Rank:** JCR - Q2 (*Microbiology*) / CiteScore - Q2 (*Microbiology (medical)*)

## Contact Us

*Microorganisms* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/microorganisms](http://mdpi.com/journal/microorganisms)  
[microorganisms@mdpi.com](mailto:microorganisms@mdpi.com)  
X@Micro\_MDPI