In the absence of evidence about bacterial co-infection incidence, antibiotic treatment was widely prescribed to prevent this potential complication. Increasing antibiotic consumption could have exerted an ecological pressure on microorganisms with potential clinical implications that need to be examined.

The aim of this study is to analyse antibiotic consumption and antimicrobial-resistant microorganisms isolates during the peak incidence of COVID-19 first wave at our hospital.

Antibiotic consumption data for March and April 2020 and 2019 were analysed. Defined daily dose (DDD) per 100 bed-days was used as the consumption indicator and changes were expressed in absolute and percentage terms.

During the analysed period, antibiotic consumption experienced a marked increase. The increasing use of third-generation cephalosporins, which have no effect over ESBL-producing Enterobacteriaceae, may have contributed to the observed changes in the bacterial ecology in our hospital.

As bacterial co-infection incidence upon admission was reported to be lower than 5% and the increase of antibiotic consumption translated into selection of antibiotic-resistant bacteria, it is important to properly assess antibiotic treatment for each particular case in future outbreaks of sars-cov-2 infections.