

Referee 3

Rangel et al. present a review article describing current data on the prevalence of *A. baumannii* infections in COVID-19 patients and changing of antimicrobial resistance caused by overuse of antibiotics during pandemic. This topic is very hot and requires attention.

However, the presented review does not allow to get insights into this problem. I suggest rejecting the paper in this form and propose the authors to re-write it and include more relevant data regarding the changes of antibiotic resistance during COVID-19 pandemic and present the data in more structured way. I also suggest comparing the reports of *A. baumannii* prevalence in ICU units before (2018-2019) and during pandemic (2020-2021), since it is not easy to confirm that the changes were due to COVID-19 and not due to other factors.

Thank you. All major changes in response to the reviewer are written below and highlighted in the manuscript. Minor changes related to the use of English are not denoted. Some lines have changed because of changes suggested by referees.

Thank you for your suggestion. Our main goal was to summarize the prevalence of *A. baumannii* co-infections and secondary infections in COVID -19 patients and we highlited the increased antimicrobial resistance due to the overuse of these drugs during the pandemic.

Major comments:

1. The review is very short and is not structured well. The chapters 2.1 and 2.2 describe the information that has already been reported in numerous papers and reviews. The clinical importance and high levels of resistance for *A. baumannii* are well known and could be mentioned in one or two paragraphs since these issues are not in the focus of the review.

Thank you. We agree with the referee and we include this paragraph in the review, section 2.3. and also introduce a figure with a schematic representation of the different resistance mechanisms developed by bacteria (Lines 141-174).

2. The chapter 3.2 contains the data for prevalence of *A. baumannii* in ICU patients with COVID-19. However, this chapter is simply a list of the works with percentage shown. No analysis is given and only a few reports confirmed the differences of co-infection rates between ICU patients with COVID and without COVID. It is very hard to follow this chapter – a table summarizing the reports would be better choice.

Thank you. We inserted a table summarizing the reports (Line 237, 297).

3. Although this was mentioned in the abstract, no investigations were made regarding the change of *A. baumannii* antibiotic resistance during COVID-19 pandemic. Nothing was reported regarding the consequences of antibiotics

overuse either. However, these issues are very important and are much more relevant than simple percentage values of the infections revealed.

Several authors warned about a potential increase in multi-resistant microorganisms due to the high use of antimicrobials in patients with COVID-19 still in its early stages. The early and excessive use of antibiotics combined with the lack of rapid and accurate diagnostic resources creates the need for additional antibiotics if the patient presents clinical worsening, contributing to the use of broad-spectrum antimicrobials and possibly to an increase in bacterial resistance and its potential implications both in the hospital environment and in the community. However, we still do not have data to prove the change in antibiotic resistance of *A. baumannii* during the COVID-19 pandemic.

4. The conclusion is not detailed and most part of it is not connected to *A. baumannii*.

Thank you. We revised the conclusion.

Minor comments:

Title – “i” is missing in “infections”

Thank you. This was corrected (Line 2).

p.1, line 29 – probably, a dot is missing before “SARS-Cov-2”

Thank you. This was corrected (Line 30).

p.1, line 30 – should be “caused... deaths” or something – a verb is missing

Thank you. This was corrected (Line 31).

p.1, line 42 – bacteria species should be defined fully (e.g., *Streptococcus pneumoniae*); short designations can be used in the later text

Thank you. This was corrected (Lines 42-43).

p.2., line 43 – please mention that the given bacterial species are associated with influenza (according to the references you provided), or add some references for other coronaviruses

Thank you. This was mentioned (Lines 44).

p.2. line 44-45 – “most secondary infections could be as high as 50% among non-survivors patients” What does this mean? Has most infections been revealed in at least 50% of these patients, or at least one infection did? Please clarify

According to authors, the secondary infection of died patients can reach 50%.

p.2., line 50 – “associated” after (V.A.P.) should be removed

Thank you. This was removed (*Lines 52*).

p.4., line 131 – “pneumonia e bacteremia” – please correct

Thank you. This was corrected (*Lines 130-131*).

p.4, line 143 - “befre” – please correct

Thank you. All this sentence was removed according to Referee 1.

p.4, lines 156-157 – “However, others have reported an increased risk of carbapenem-resistant infections in patients hospitalized with COVID-19”. – please provide the references. Why did you put ‘however’ here? Decreased antibiotic susceptibility (from previous sentence) is not contradicted to increased risk of infection

Thank you. The word “however” was wrong and was removed (*Line 188*). The references were provided (*Line 189*).

p.4., lines 160-162 – the point is not clear. How many deaths were revealed in the first and the second groups? The differences between 5 out of 10 and 4 vs. 23 (as could be inferred from the presented data) are not significant, and the sample sizes are too small to make conclusions.

Thank you. This sentence was rewritten (*Line 191-193*).

p.4, lines 165-168 – this sentence completely makes no sense. Please rephrase and check grammar

Thank you. This sentence was rewritten (*Line 194-199*).