Reply to the Editor.

Dear Respected Editor/Reviewer

Good day

Thank you very much for the comprehensive review and for your precious time that you spent in reviewing this study. We did the advised changes and answered the queries. All the changes were marked by red colour for easily tracking by the reviewer. The manuscript looks much better with these changes and we tried to improve the language as we can. Thank you gain for your precious assistance.

Here we are replying point by point:

The reviewer Comments:

The authors present a population study on 1380 patients who were admitted with confirmed COVID-19 disease during the study period, with the aim to study the bacterial profile in patients with COVID-19 who needed admission to receive treatment in the main centres concerned with the management of COVID-19 disease in the Kingdom of Bahrain . After reading the manuscript several issues remain. Thus, this work could be considered for publication in World Journal of Virology before minor modification,

1. General comments Although the study observed significant increase in the number of bacterial and fungal coinfection over the study period. Gram-negative infections carry higher risk of morbidity and mortality. I'm not sure why the study is interesting for clinicians from other parts of the world. I would therefor advise to better emphasize in both the Introduction and Discussion which lessons could be learned from the current results, and how these can be used/implemented in other countries.

The article is interesting for the physician who care for Patients with COVID-19 disease specially those who need ICU admission. The study came from the main center in the kingdom of Bahrain and consequently represent the whole country, which share the same conditions in many other countries in Asia in particular the Gulf countries.

As regard the lessons learned from this article are many:

- There is a high incidence of gram-negative bacteria in the patients who needs hospitalization with increased mortality rate among those patients.
- Most of the gram-negative bacterial coinfections were hospital-acquired (75%), consequently every effort should be done to minimize this risk.
- Multi-drug resistant strains were present in more than half of the gram-negative bacterial isolates. This point should be considered during the management till the results of the antibiotic sensitivity is achieved.
- Being male and older than 60 year carries higher risk for gram-negative as well as mixed co-infections.

These points were added to both introduction and discussion.

2. Apart from this formal requirement, I wonder whether the investigators had access to other baseline information regarding this population. It would be interesting to report more extensively on other risk factors and medications.

The patients were stratified according to the national guidelines to be allocated to specific COVID-19 Care centres, into mild, moderate, and severe. The severe cases were assigned to the tertiary care canters with advanced care facilities. The medications differed according to the severity of the case and the presence of criteria of suspected sepsis. All the gram-negative isolates were detected from the centres allocated for the severe cases.

This was added to the methodology, results and discussion.

3. The authors claimed that "The coronavirus (COVID-19) pandemic, which began in December 2019 in China led to a Public Health Emergency all over the world including, Bahrain." The virus traceability show that it was not began in China, so it would be better to cite recent literature.

Correction was done and marked in red colour. Two references were added to show that France and Italy confirmed discovery of SARS-CoV-2 antibodies prior to December 2019.

4. The authors claimed that "We observed also that the number of patients with bacterial or fungal infection was significantly higher in the July-to-October period ($P < 0.0001$) with a higher mean age ($P < 0.01$) compared to the first period of the study between February to June." Interesting data and results! It would be interesting to report the association between temperatures/atmospheric factors and bacterial coinfection.

We already discussed this point previously in the manuscript. We marked it in red color for easy tracking. We have previous studies in our country to study Gram -ve sepsis in patient in the ICU and it did not show significant changes of bacterial coinfection with temperatures/atmospheric factors.

-Table 1, please keep 3 valid numbers

The table was corrected.

Editorial office Comments:

Language quality:

We improved the language quality, and the manuscript was revised by a native-English speaker for grammar, sentence structure, word usage, spelling, capitalization, punctuation, format, and general readability. The manuscript's language is markedly improved to meet the direct publishing needs.

Reply to *Science editor:*

Thank you very much.

WE provided the original figure document in the form of PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor.

The "Article Highlights" section was added at the end of the main text.

Reply to the Company editor-in-chief:

Thank you very much.

We supplied the primary version (PDF) of the Institutional Review Board's official approval in English language as it is the official language used in the medical services in the Kingdom of Bahrain.