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| Journal Name: | [**Journal of Advances in Medicine and Medical Research**](https://journaljammr.com/index.php/JAMMR) |
| Manuscript Number: | **Ms\_JAMMR\_133282** |
| Title of the Manuscript: | **Evaluating Bacterial Resistance In Sewage Treatment Plants: Detection Of KPC-Producing Enterobacteria In Wastewater, Brazil** |
| Type of the Article | **Original Research Article** |

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| **PART 1: Comments** | | |
|  | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This research is crucial for the scientific community due to its focus on the growing issue of antimicrobial resistance (AMR) in environmental contexts, specifically sewage treatment plants (STPs). The study delivers key insights into AMR transmission pathways and the associated public health risks from contaminated wastewater. It underscores the necessity for improved wastewater treatment strategies and stricter regulatory frameworks to minimize the dissemination of resistant bacteria into natural water bodies. Furthermore, the integration of both phenotypic and molecular methodologies strengtheners the understanding of AMR detection, providing a robust, multi-faceted approach that can guide future investigations and public health interventions. | Dear reviewer and editor, we appreciate the compliments and tried to fulfil the requests sent to us as much as possible. We hope that it is adequate, within our limitations, as explained below. |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The current title is clear and informative , but is somewhat lengthy and could be more concise. Suggested titles “ Detection of KPC-Producing Enterobacteria and Antimicrobial Resistance in Brazilian Sewage Treatment Plants”. | We changed the title as requested by the reviewers, trying to adapt it as much as possible to both requests. |
| **Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.** | To make the abstract more comprehensive and balanced, it needs clearer language, stronger emphasis on the key results and a tighter structure. Here are those recommendations:   1. Clarify the study objective at the start. 2. Include more detail on methods and sample size 3. Strengthen the conclusion to reflect the study and future impact | We added more information to the abstract to accommodate this note. |
| **Is the manuscript scientifically, correct? Please write here.** | To improve the scientific accuracy and rigor of manuscript, the addition of statistic analysis (p-values), a justification for the sample size, a discussion of resistance mechanisms and environmental factors and an acknowledgment of potential biases. | This work comes from a doctoral thesis, whose pilot project aims to qualitatively characterize two sewage treatment plants belonging to a single institution, which makes a representative sample of the campus where they are located. This analysis sought qualitative results to characterize which resistant strains would be most likely to be disseminated. Statistical, quantitative analyses and environmental factors were not performed due to budgetary issues and the availability of the partner laboratory to perform the analyses. For future projects, we are investing in partnerships and funding to carry out improved statistical analyses and environmental characterizations of the analyzed samples. |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Replace older references, especially those over 10 years old with more recent studies. Include recent review on the molecular basis of KPC resistance to strengthen the discussion section. | Some references, even if considered old, are part of the methodological basis of our laboratory and, consequently, of the study to which this article refers. This means that they cannot be removed from the text without our work losing its methodological origin. However, we have added some more current references to fulfill the reviewers' request. |
| **Is the language/English quality of the article suitable for scholarly communications?** | The language quality would be improved by correcting minor errors, simplifying phrasing, and ensuring consistency, which would enhance the manuscript's professionalism and readability. | We apologize for the inconvenience. We have tried to improve the writing as requested. |
| **Optional/General** comments | Revise the manuscript by enhancing statistics and references, clarifying methodology, improving language, expanding impact discussion, and suggesting future research. | We appreciate all your comments. We would like to reiterate that we tried to respond the suggestions and requests that were made in order to improve our work. |

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| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |