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| Journal Name: | [**International Journal of Pathogen Research**](https://journalijpr.com/index.php/IJPR) |
| Manuscript Number: | **Ms\_IJPR\_132114** |
| Title of the Manuscript:  | **Molecular Characterization of Vibrio Species Isolated from Clinical Sources and Water Bodies in Buguma** |
| 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 study provides valuable insight into the molecular characterization and antibiotic resistance of Vibrio species in clinical and environmental samples from Buguma. The findings are crucial for public health, water safety, and infection control showing the potential risks of Vibrio-related infections and the need for improved sanitation and monitoring in water bodies. It is relevant for epidemiological and clinical applications.** |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | **The title accurately reflects the study’s focus on molecular characterization and antibiotic resistance of Vibrio species. However, it could be rephrased thus: “Molecular Identification and Antibiotic Resistance Patterns of Vibrio Species from Clinical and Environmental Sources in Buguma” to better emphasize the research scope.** |  |
| 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. | **It is necessary to briefly clarify the significance of the resistance genes detected and specifying key statistical results to improve clarity. Also, the conclusion should better highlight the study’s broader public health implications.** |  |
| Is the manuscript scientifically, correct? Please write here. | The manuscript is scientifically sound, with appropriate methodologies for bacterial isolation, molecular characterization, and antimicrobial susceptibility testing. However further explanation of quality control measures in PCR procedures and sample handling would strengthen reliability. Minor clarifications on statistical analysis choices could enhance transparency. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | The references are relevant and recent, with appropriate citations to support the study’s background and findings. However, some key references on Vibrio ecology and antimicrobial resistance trends in similar regions could be added for broader context. Some listed are1. Vezzulli, L., Grande, C., Reid, P. C., Hélaouët, P., Edwards, M., Höfle, M. G., Brettar, I., Colwell, R. R., & Pruzzo, C. (2016). Climate influence on Vibrio and associated human diseases during the past half-century in the coastal North Atlantic. Proceedings of the National Academy of Sciences of the United States of America, 113(34), E5062–E5071. https://doi.org/10.1073/pnas.1609157113 This study explores how environmental changes impact Vibrio distribution and infection risks, relevant for discussing waterborne Vibrio dynamics in Buguma. 2. Baker-Austin, C., Oliver, J. D., Alam, M., Ali, A., Waldor, M. K., Qadri, F., & Martinez-Urtaza, J. (2018). Vibrio spp. Infections. Nature reviews. Disease primers, 4(1), 8. https://doi.org/10.1038/s41572-018-0005-8 Provides a comprehensive overview of Vibrio ecology, pathogenicity, and antibiotic resistance trends worldwide. 3. Gxalo, O., Digban, T. O., Igere, B. E., Olapade, O. A., Okoh, A. I., & Nwodo, U. U. (2021). Virulence and Antibiotic Resistance Characteristics of Vibrio Isolates From Rustic Environmental Freshwaters. Frontiers in cellular and infection microbiology, 11, 732001. https://doi.org/10.3389/fcimb.2021.732001  Reports Vibrio resistance patterns from water sources, particularly in African settings, making it highly relevant for comparison with the Buguma study.  |  |
| Is the language/English quality of the article suitable for scholarly communications? | Some sentences are overly complex, and restructuring them for clarity would enhance the manuscript’s flow. A thorough proofreading for typographical errors and proper tense usage is recommended. |  |
| Optional/General comments |  |  |

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| **PART 2:**  |
|  | Reviewer’s comment | Author’s comment *(if agreed with the 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 detail)* |  |

**Reviewer details:**

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