

**Review Form 1.7**

Journal Name:	<b>South Asian Journal of Research in Microbiology</b>
Manuscript Number:	<b>Ms_SAJRM_112663</b>
Title of the Manuscript:	<b>Isolation, Identification, and Antibiogram of Colistin-Resistant Acinetobacter baumannii from Rivers in and around Kathmandu Valley</b>
Type of the Article	<b>Original Research Article</b>

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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
<p><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<ol style="list-style-type: none"> <li>1. Based on the provided manuscript, it appears that it holds significant importance for the scientific community, particularly in the fields of environmental microbiology, public health, and antibiotic resistance research.</li> <li>2. The title is suitable as it clearly and concisely conveys the main focus and scope of the study.</li> <li>3. The abstract you've provided offers a good overview of the study and its findings, but there are a few areas that could be enhanced for better clarity and completeness such as "<i>Among these, 14 (4.9%) demonstrated resistance to Colistin, a last-resort antibiotic. These Colistin-resistant strains showed the highest susceptibility to Gentamycin (14.28%) and complete resistance to Ceftazidime.</i>" The original sentence structure is somewhat convoluted, separating related information about Colistin resistance and susceptibility to other antibiotics. This sentence can be change to "<i>Of these, 14 strains (4.9%) were resistant to Colistin, the last-resort antibiotic, with these strains being most susceptible to Gentamycin (14.28%) and entirely resistant to Ceftazidime.</i>", making it easier to understand the resistance and susceptibility patterns of the Colistin-resistant strains without breaking the flow. Moreover, "284" this word you mentioned twice in an abstract only once appearance is sufficient.</li> <li>4. This study includes the following sections: Introduction, Materials and Methods, Results, Discussion (sometimes combined with Results as Results and Discussion), and Conclusions. However, after reading the Reviewer's comment, if you feel that certain sections or subsections are not contributing effectively to the manuscript, consider revising or removing them.</li> <li>5. The study appears to be scientifically relevant and methodologically sound.</li> <li>6. "Further biochemical tests (Oxidase, Catalase, Methyl red, Voges-Proskauer test, Citrate utilization test, Indole production test, Triple sugar iron agar test, and Urease test) were performed on all isolates." As well as "Antibiogram of isolates and Screening for colistin-resistant <i>A. baumannii</i> topics" These methodologies should add the references of the previous research that use the same methods or previous guideline that mentioned about these methods that you use, such as CLSI or EUCAST.</li> </ol>	
<p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></li> </ol>	<p>Based on the manuscript, the language appears to be clear and largely adheres to the conventions of scholarly communication. However, the text should flow logically, with ideas connected coherently. Paragraphs and sections should be organized in a way that guides the reader through the argument or findings smoothly.</p>	
<p><b>Optional/General</b> comments</p>	<ol style="list-style-type: none"> <li>1. Sample size; "The grab sample method involves taking water samples at a specific point in time, providing a representative sample of the water's composition at that moment." Should add the sampling time which the time collected water such as 9:00 am or 3:00 pm. This sentence "Each sample was collected weekly over a period of five months, allowing for a comprehensive examination of temporal variations in water quality." Should add the date of sampling or the time periods such as February 23<sup>rd</sup> to June 26<sup>th</sup>, 2022, removing from study periods topic.</li> <li>2. <i>A. baumannii</i> isolation and identification; "0.1 ml of sample was pipetted out from 10-3 dilution series onto the centre of the surface of prepared Acinetobacter Agar Base (with added Leeds Acinetobacter Selective Supplement)." when mentioning agar or products used in research papers, it is standard practice to include both the name of the product and the manufacturer, including the location of the manufacturer when possible. This practice ensures clarity and allows other researchers to replicate your methods as closely as possible, which is crucial for the reproducibility of scientific research, "A culture-based method using Leeds Acinetobacter Agar Base with added</li> </ol>	

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	<p>Leeds Acinetobacter Selective Supplement (Supplier Name, City, Country)." As same as "MacConkey agar (MA), Nutrient agar (NA), Mueller Hinton agar, MS Excel (Microsoft), and SPSS (IBM)" that you mentioned. Should add the manufacturer like Thermo Fisher Scientific, Merck, or etc.</p> <p>3. From 10 different sites A-J, to enhance clarity and provide context for the selection of the different sites across Kathmandu Valley in your study, it is crucial to describe the rationale behind choosing these locations, especially in terms of their environmental and geographical significance, such as being upstream, downstream, or near effluent discharge points. For example, Site A: Chobar (Bagmati) - Positioned downstream, near industrial zones, to assess impact of industrial effluents, Site B: Pashupati (Bagmati) - Located upstream, offering a baseline for natural water quality before urban influence, or Site C: Balkhu (Balkhu) - A midpoint site, influenced by both urban runoff and upstream water quality.</p> <p>4. Table 2 and 4; Total isolates column has only Ciprofloxacin and how about the others? Should provide total isolate for each row after S I R column.</p> <p>5. Antibiogram of isolates; should include the cut-off for S I R (Sensitive, Intermediate, and Resistant) in mm for each antibiotic used in this study.</p> <p>6. Statistical analysis and Relation between MDR and colistin-resistant isolates topic; add the statistics method that are use for correlation test and add the statistics that are used for normality test.</p> <p>7. Discussion; "Islam et al studied" add the year of the article. Consider highlighting the unique contributions of your study, particularly the discovery of Colistin-resistant Acinetobacter baumannii in river waters of Kathmandu Valley. Clarify how these findings add to the existing body of knowledge, especially in the context of Nepal's environmental and public health landscape. The manuscript would benefit from a deeper exploration of the public health implications of your findings. Discuss the potential risks associated with the environmental presence of Colistin-resistant A. baumannii, especially in settings with limited healthcare resources, and suggest measures for monitoring, control, and prevention. Moreover, conclude the discussion with a strong summary of your main findings, their significance, and the urgent need for comprehensive strategies to address the environmental spread of antibiotic resistance.</p>	
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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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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