

Review Form 3

Journal Name:	Asian Journal of Advanced Research and Reports
Manuscript Number:	Ms_AJARR_122432
Title of the Manuscript:	Mathematical Modeling of Multidrug-Resistant Tuberculosis in Sub-Saharan Africa
Type of the Article	Minireview Article

Review Form 3

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>The article "Mathematical Modeling of Multidrug-Resistant Tuberculosis in Sub-Saharan Africa" provides a thorough overview of the challenges and future directions for mathematical modelling of MDR-TB in this region. The abstract succinctly sets the stage, focusing on limitations related to data availability and diagnosis and highlighting the potential of machine learning to address these gaps.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Yes</p>	
<p>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.</p>	<p>The abstract could benefit from a clearer structure. Consider breaking it into sections such as Background, Methods, Results, and Conclusions.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The introduction is well-structured, establishing the context of TB as a global health concern, with a specific focus on sub-Saharan Africa, which bears a disproportionate burden of the disease. The section on mathematical modeling in epidemiology lays a solid foundation for the reader to understand how models are built and applied to diseases like TB.</p> <p>The review's objectives are clear and directly address the major issues hindering effective modeling of MDR-TB in the region. Discussion of diagnostic challenges and treatment paints a grim yet realistic picture of the obstacles in the region, such as inadequate facilities and low treatment rates.</p> <p>By reviewing existing models used to study MDR-TB in countries like South Africa and Ethiopia, provide valuable insight into how models have been used to estimate future trends and explore strategies to mitigate MDR-TB's impact. However, the limitations and gaps in these models—particularly the lack of quality data—are also emphasized.</p> <p>The future directions highlight the potential role of machine learning, which is a strong point in your review. It addresses a growing area of research that could significantly improve predictions in regions with sparse data.</p> <p>The conclusions tie together the key points, stressing the need for better data and more sophisticated modeling techniques. This emphasizes the urgent requirement for improved surveillance and testing in sub-Saharan Africa.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>Mini-review is concise and well-focused, providing a critical analysis of both the current state and potential future of mathematical modeling for MDR-TB in sub-Saharan Africa.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>Yes</p>	

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Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?		
Optional/General comments		

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>	

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