

Review Form 1.7

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_115928
Title of the Manuscript:	Analysis of Mathematical Model for Diarrhea in the Presence of Vaccine and Treatment
Type of the Article	

PART 1: Review Comments

	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)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>This type of model is very important for scientific community although the topic and the similar mathematical model is very common. Very simple results have been studied here. The manuscript needs to be improved by addressing the following points before consideration. Disease transformation diagram has not been explained in the manuscript. Authors are advice to do it clearly.</p> <p>No. Treatment control variable has not been used anywhere. Authors are advice to write proper title of the article.</p> <p>The abstract of the article is comprehensive. Write it properly after correcting the previous points.</p> <p>There is no important without diagram and analysis of Basic reproduction number. Writing is very poor. Need more study and add more references in the introduction section. Explain the numerical results in the main manuscript. Lack of explanation in model formation section and Sensitivity analysis section.</p> <p>Without diagram and analysis of Basic reproduction number, it can't say the manuscript is scientifically correct.</p> <p>More recent study and references needed. Some suggested references link are given below: 10.4314/jasem.v25i7.2, https://doi.org/10.1016/j.rico.2022.100115, https://doi.org/10.1016/j.aej.2021.12.066, https://doi.org/10.1002/pa.2754, https://doi.org/10.1007/s00500-023-09170-0.</p>	<p>The disease transformation diagram is now explained in details in section 1.2 on page 3, lines 1–12 from bottom. 2. Treatment variable τ is first mentioned in Figure 1, page 3 where infected individual class decreases due to treatment at the rate τ and the recovered individual class increases from treated infected individuals at the rate "τ". In section 1.3 on page 4, the parameter τ is well described as the rate at which infected individuals are treated. Furthermore, the effects of τ on the dynamics of the diarrhea disease were analyzed and results shown depicted in Figures 4, 5 and 6 on pages 11-12. 3. A new suitable title to the study is given as: Mathematical Modeling of Diarrhea with Vaccination and Treatment Factors 4. Analysis of of basic reproduction number and explanation of numerical results with sensitivity analysis of parameters are given in detail in Section 10 (Discussion and Conclusion) on page 13 as well as in Figures 2,3,4,5 and 6 on pages 10-12. 5. The papers mentioned by the reviewer have been added to the references and cited accordingly in the introduction section</p>
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The literature review section needs expansion or improvement and comparison with other studies need expanding. The paper needs more efforts to establish the results correctly, so I give some recent related work for literature in point 6 and also for improvement of this paper.</p>	
<p>Optional/General comments</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>	