

Review of: "An Optimal Control for Ebola Virus Disease with a Convex Incidence Rate: Imputing from the Outbreak in Uganda"

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Potential competing interests: No potential competing interests to declare.

Report of the Review of the Manuscript Titled “An Optimal Control for Ebola Virus Disease with a Convex Incidence Rate: Imputing from the Outbreak in Uganda”.

The authors constructed and analysed a model of Ebola Virus Disease (EVD), with the use of a convex incidence rate examined the optimal control of the disease. The novelty of the work lies in the use of the convex incidence rate and the optimal control procedure to examine the effects of several control measures such as lockdown, contact tracing and treatment. Some minor errors have been pointed out in the manuscript and have been indicated in the annotated version of the manuscript attached. However, I wish to observe as follows:

- a. The authors failed to examine the stability of the disease-free equilibrium, which is central in the control of any disease outbreak, without any justification.
- b. The disease endemic equilibrium state was obtained without any further analysis, making the section incomplete.
- c. The section 3.1 has nothing written under it.

Conclusion

Based on the issues raised above, I am compelled to conclude that the manuscript as it stands is incomplete. I therefore recommend that the authors complete the manuscript and effect all the minor corrections pointed out and resubmit for review.

Thank you for giving me the opportunity to review the manuscript.

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