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.

Authors propose a compartmental model (SEITRD) of Ebola Virus Disease with a convex incidence rate and extend their model by applying optimal control problem further in order to find the best strategy in controlling the disease. Furthermore, they perform cost-effectiveness analysis to seek the cheapest and most effective strategy.

In my opinion, the aim of the study is interesting and the manuscript is well structured. The results can be further used in real scenario once they have raw data.

However, here are some comments which could make this manuscript better and perhaps being accepted for publication.

1. Please try to keep the symbol EVD and EBV consistent - choose one to make it clearer.
2. Try to explain more or give reason why authors choose this particular function of incidence rate as convex incidence rate - by this I mean is there only one form or there are other forms? If the latter please clarify why authors choose this form.
3. Equation (2.4) - I found some mistake in calculation of V. Hence, this can lead to incorrect basic reproduction number.
4. v2 in (2.4) is also not correct.
5. Please recheck the third equation of (3.1) whether authors missed the term -c3*I or not.
6. In (3.2) and (3.3) - aren't the definition of b0, b1, and b2 are different? If so, different symbols are required.
7. The content of section 3.1 is missing. Please fill in this part as it is important.
8. In (3.7), is it supposed to have the term beta1*D(1+alpha2*D) in the first equation? And the fifth equation suppose to be (e5-e1)*r + e5*mu? If so, would this affect the numerical results too?
9. The value c1-c3 obtained in (3.9) are not correct.
10. Caption of Figure 21-22 should be changed according to the figures shown.
11. In discussion part, it would be great if authors could discuss more of the importance or significance results that used convex incidence rate - which is different from previous study. Authors may compare the results of with and without using convex incidence rate.
12. Numerical simulations could be improved.
13. Please check typo and grammatical error throughout manuscript.

Once all points above have taken into account and changed or corrected then this manuscript is then can be accepted.