



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">British Journal of Mathematics &amp; Computer Science</a>            |
| Manuscript Number:       | Ms_BJMCS_33955                                                                   |
| Title of the Manuscript: | Mathematical model of dengue disease transmission dynamics with control Measures |
| Type of the Article      | Original Research Article                                                        |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**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) |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                               |
| <b>Minor</b> REVISION comments      | <p>The manuscript brings an interesting contribution about modelling of Dengue epidemics. I think the mathematical model is straightforward and present no strong issues. Its discussion and analysis might be improved by considering the changing in the effectiveness of control measures over time due to insecticide resistance, or reinfection by a different serotype, or even the introduction of refractory mosquito populations. But I think as an initial/general approach it is worth. I am only concerned with some minor corrections and language that was used which can bring some bias in uninformed readers.</p> <p>Line 10. Aedes in italics</p> <p>Line 24-25 – These initial two sentences are very generic and should be removed.</p> <p>Line 30 - ...that serotype again...</p> <p>Line 37 – So, mathematical studies...with different incubation periods.</p> <p>Line 40 – This is wrong. There are two vaccines with different protection rates. One of them is commercially available. Please correct that.</p> <p>Line 44-45 – This is very innacurate. <i>Aedes</i> mosquitoes bites mostly in dusk and dawn periods. Please describe this correctly and give proper references. Besides that, as the nocturnal activity of <i>Aedes</i> is very low, the use of bed nets is not an efficient protective measure for Dengue. Please correct that either.</p> <p>Line 48 - ...destroying larval breeding sites...</p> | <p>Thanks for the reviewer. I have followed all the valuable suggestions in the revised form. I have typed the corrections in red colour.</p>                                 |



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|                                         | <p>Line 51 - ...we have considered as control...</p> <p>Line 55 – The use of insecticides does not destroy breeding sites. Insecticides kill the mosquitoes and inactivate a breeding site temporarily. Please rephrase.</p> <p>Line 65-6 – breeding sites are destroyed by physical removal of water. Insecticide spray only reduces temporarily the vector population.</p> <p>Line 137-8 and 165-6 – same problem, insecticides do not destroy breeding sites.</p> <p>Line 172-3 – That’s plainly wrong. There are vaccines and treatments to the disease. Please rewrite.</p> <p>Lines 183-186 – “In the present case, destruction of breeding sites of mosquitoes and death of mosquitoes is found...” (remove “spray of insecticides which causes”)</p> |  |
| <b><u>Optional/General</u></b> comments |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |