Author’s response to reviews

Title: Prevalence and laboratory analysis of malaria and dengue co-infection: A systematic review and meta-analysis

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Author’s response to reviews:

Comments from Reviewer 1 (Nasir Salam)

1. The authors have tried to analyze the laboratory finding of malaria and dengue confection by doing a systematic review and meta-analysis. This information is much required to decide the course of action if there is confection with both the pathogens especially in resource poor settings and where there is an epidemiological overlap between the two pathogens.

Response from authors: Thank you very much to the reviewer for understanding the importance of our study. Yes, our study aimed to provide a clear understanding of the epidemiology of malaria/dengue co-infection which is essential to inform decisions on appropriate control strategies in resource poor settings where there is an epidemiological overlap between the two pathogens.

2. However excluding the full text of nearly 577 studies makes it a challenging prospect to analyze thoroughly the efficacy of such meta-analysis. Systematic reviews and meta-analysis are dependent on availability of full text of all relevant articles however excluding half of those potentially relevant studies might not give a full picture of such analysis.

Response from authors: Thank you very much to the reviewer for raising this point of concern. This was the limitation of our study; those 577 full text studies could not be retrieved because our University did not pay for subscription to those journals. That is why we cannot obtain the relevant articles. However, we tried to analyze the 490 full text articles with extensive care to get the best results for an inference on malaria and dengue co-infection worldwide. The aim of our study was very different from other studies. We aimed and emphasized to figure out the relationship of malaria and dengue co-infection in relation to alteration in laboratory parameters such as platelet, hemoglobin, hematocrit, AST, and ALT levels. That is why we not only performed a systematic review as Nasir Salam et al., 2018, but the meta-analysis was also
performed. In the process of the meta-analysis, the homogeneous full text articles must be selected carefully. And we enrolled only 15 studies for our study.

3. Another problem is in the methodology section where search methods are described after eligibility criteria. it should be search strategy followed by eligibility criteria followed by data extraction followed by data synthesis.

Response from authors: Thank you very much for the reviewer’s concern. This was just misplacement of subsections. If the reviewer looks at Figure 1 (PRIMA guideline), the search strategy was the first section following by eligibility criteria and then by data extraction. To address the reviewer’s concern, we rearranged the methodology section where search methods are described before eligibility criteria. This will correspond with the methodology that we performed in Figure 1. We apologize for confusing the reviewer and editor. We highlighted the changes in red color in our manuscript.

4. I recommend that authors go through the search strategy once more and try to find more relevant articles to make their study more comprehensive.

Response from authors: Thank you very much for the recommendation from the reviewer. We are very appreciative for the excellent recommendation regarding restarting the search strategy. We would like to respond that even though we may restart the search strategy, we are not likely to get different results per the reviewer’s recommendation. This is because the papers that we can access and obtain will remain similar to the full text articles we have already, and we also could not obtain those 577 full text articles that our University does not subscribe to. With respect, we hope that the reviewer and editor will understand our situation. We are at a middle or low income university with a low budget. We hope that our manuscript will not be rejected on this basis, and look forward to hearing good news for our manuscript. Thank you very much.

Comments from Reviewer 2 (M Mohapatra)

1. Change of Title: Does not read well. Instead of Plasmodium sp. can be written Malaria.

Response from authors: The title has been changed to “Prevalence and laboratory analysis of malaria and dengue co-infection: A systematic review and meta-analysis”.

2. Key words: Key words should be different from the words mentioned in the Title of the Paper.
Response from authors: Keywords have been changed to “hematological parameters, malaria prevalence, dengue prevalence, dual infection”.

3. In Results (Observation) there are frequent uses of "A study" making the section monotonous. Change it for pleasant reading.

Response from authors: We changed the sentences in the result section to make the section less monotonous and more pleasant for reading. The changes were highlighted in red color.