Author's response to reviews

Title: Use of the GenoType(R) MTBDRplus assay to assess drug resistance of Mycobacterium tuberculosis isolates from patients in rural Uganda

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RESPONSE TO EDITOR’S COMMENTS

a) Title: Please review the grammar of your title, we would suggest that it might be more appropriate to use "of" rather than "among"

Response: The title has been edited and the word “among” replaced by “of”

b) We do not feel that you have adequately responded to this comment from referee one in your revision:

1. How do the authors explain the high rate of rifampicin mono-resistance compared to MDR and INH resistance? Did the traditional method show no further resistance in any of the remaining 117 isolates that tested drug-susceptible by Genotype MTBDRplus method?

We appreciate that the results are what you obtained from the testing, however, that does not seem to have been the point that the referee was trying to make. Our interpretation is that they were highlighting that it is a high rate, and that you should provide some discussion of the reasons why that might be (whether this is due to assay limitations or some other possible reasons). The response to the second question is fine, but please ensure this information is included in your manuscript.

Response: We apologize for misunderstanding the question from the reviewer and also thank the editor for this kind interpretation. We have now explained that generally, resistance to rifampicin is a surrogate marker for MDRTB, and that the low sensitivity of the assay for detection of isoniazid resistance is likely due to the fact that the assay targets only katG315 mutations while isoniazid resistance in M. tuberculosis strains could also involve mutations in other katG gene regions or in other loci. Furthermore, mutations in the inhA promoter region occur in 15% to 35% of INH-resistant M. tuberculosis strains from some geographical locations. This has been explained on page 10 of the revised manuscript.

We would be grateful if you could address the comments in a revised manuscript and provide a cover letter giving a point-by-point response to the concerns.

Please also highlight (with 'tracked changes'/coloured/underlines/highlighted text) all changes made when revising the manuscript to make it easier for the Editors to give you a prompt decision on your manuscript.

The revisions made are in track changes on pages 1 and 10 of the revised manuscript.