Author’s response to reviews

Title: Factors associated with isoniazid resistant tuberculosis among human immunodeficiency virus positive patients in Swaziland: A case-control study

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Author’s response to reviews:

Dear Dr. Cecilia Devoto:

We have finished modifying the manuscript titled “Factors associated with isoniazid resistant tuberculosis among human immunodeficiency virus positive patients in Swaziland: A case-control study” (no. INFD-D-19-00280.r1) according to your comments. Our revisions are highlighted in red in the manuscript. Our modifications are detailed below. Thank you very much for reviewing our manuscript. We look forward to hearing from you.

Sincerely,

Li-Yin Chien, MPH, ScD

Peter B Mwaba (Reviewer 1): In your methodology section, could you clarify on how the HIV infected patients were recruited. Was this a joint HIV/TB clinic with all patients having been diagnosed with HIV prior to the recruitment? What tests specifically for HIV were performed? Was there a group of patients who were tested for the first time at recruitment? A few comments on how the groups were managed/ treated would make the paper even more interesting or an attachment of the ESwatini guidelines on the treatment of DRTB. A good paper though.

How the HIV infected patients were recruited
In this study, HIV infected patients were recruited if they had a documented HIV positive status on the TB register (drug susceptible and drug resistant TB register). This has been added to page 7.

Was this a joint HIV/TB clinic with all patients having been diagnosed with HIV prior to the recruitment?

We added to page 6-8 “According to TB manual, 2012 and DR-TB guidelines, 2012, all persons diagnosed with tuberculosis (drug susceptible or drug resistant TB) should be tested for HIV and HIV positive patients should be screened for tuberculosis. Of the 400 participants, 212 had a known positive HIV status before TB diagnosis and 188 were tested within the TB department.” Hence all patients were diagnosed with HIV prior to recruitment into the study. TB manual, 2012 and DR-TB guidelines were added to the submission as supplementary files.

What tests specifically for HIV were performed?

For HIV testing, Swaziland implements parallel testing. The first test that is done is determine and if positive we then do unigold, if it is also positive the patient is said to be HIV positive (page 7).

Was there a group of patients who were tested for the first time at recruitment?

All patients had a positive HIV status at recruitment, no patient was tested at recruitment.

How the groups were managed/ treated

According to the TB manual, 2012 and DR-TB guideline, 2012, all HIV positive patients diagnosed with TB should be initiated on antiretroviral treatment regardless of CD4 count. Of the 400 participants, 9 were not initiated on antiretroviral treatment 2 months after TB treatment initiation due to their refusal (page 7-8). The antiretroviral regimen are described below for your reference, but not in the manuscript, because we would like to focus on the study objectives. TB manual, 2012 and DR-TB guidelines were added to the submission as supplementary files.