Reviewer's report


Version: 1 Date: 5 December 2014

Reviewer: Kristen Little

Reviewer's report:

Major Compulsory Revisions:
1. The authors do not describe the methods used to select the underlying study sample. More information on sample selection is important to understanding how representative the sample is, and for assessing the analysis methods used. The current statistical analysis utilizes a logistic regression model, which does not account for potential clustering at the household level (or weighting, if needed based on the initial sample selection method).

2. The manuscript does not include the number of individuals who participated in the underlying study, the number who did/did not receive TST, and the number whose TST was read. This information is lacking in the current manuscript and needs to be added. In addition to information on the proportion of the underlying study population receiving TST, a comparison of the characteristics between those receiving/not receiving TST to examine how representative the individuals receiving TST are of the underlying study population is needed.

3. The multivariable logistic regression model presented by the authors includes only 2 covariates—age group and employment status. This model excludes other well-known confounders, most notably HIV infection, which was available in the dataset and was evaluated in the univariate portion of the analysis. Even if HIV infection (and other potential confounders including smoking status, chronic cough, sex, etc.) were not statistically significant, the authors should provide further justification for not including them, or add them to the model. An explanation of other potential confounders (history of TB diagnosis or treatment, close contact diagnosed with TB, ART status, diabetes, etc.) that were not available to the study should be mentioned in the limitations section.

Minor Essential Revisions:
4. The authors should explain how they determined that an induration of 10mm or more constituted latent TB among all participants (irrespective of HIV status), and any strengths/limitations of this cut-off. Literature should be cited to justify this cut-point, especially articles from HIV-infected populations or in low-resource settings.

5. Details on study definitions should be included in the methods section. An explanation on why age was categorized into 3 different levels should be included, as well as the definition of “chronic cough” and the method used to
determine HIV status.

Discretionary Revisions

6. The authors conclude that their results indicate the need for workplace screenings for latent TB. While this may be the case, a model controlling only for age and employment status may be subject to a number of unmeasured confounders. Further, the logistic regression model does not account for clustering by household. After accounting for unmeasured confounders as well as household clustering, these results may be different. Given these limitations, the authors may need to temper or qualify their conclusions and recommendations. Consideration of the cost of LTBI screening and treatment should be referenced if the authors do recommend workplace-based interventions.

7. The authors do not describe whether or not active TB was excluded from the study population testing positive on TST. Were further TB diagnostic tests performed on any of these individuals? Is it possible that a portion of the TST positive study sample actually had active TB disease?

8. Was HIV status determined via self-report or HIV testing? If self-reported HIV status was used, how might this have affected the results?

9. It would be helpful if Table 1 included a comparison between those receiving and not receiving TST from the underlying study population.

10. Sentence 1 in the strengths and limitations section should be re-worded for clarity, and the setting to which these results could be generalized to should be better described (e.g. not just an urban setting, but an urban Ugandan setting, or an urban African setting, etc.)

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.