Reviewer's report

Title: TB-HIV co-infection in Karnataka province, India: a descriptive epidemiology from the national program and a comparison of treatment outcomes with non-HIV tuberculosis cases treated in the program

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Reviewer: Kwonjune Seung

Reviewer's report:

I think it is important to explain how the data was collected. The text says only, "For HIV and TB co-infected patients, reports from each center were obtained as excel spreadsheets which were verified and collated." But where did the data come from before it was compiled into spreadsheets? Assuming this is program data, then someone at the ART clinic must have collected it from routine program registers. Does this mean that every ART clinic has a TB register? Is the HIV/ART health care staff responsible for filling out the TB register? Or is the ART clinic contained within a hospital setting where there is also a TB clinic which maintains the TB register. Since ART is decentralized to health centres, how does is the TB register maintained for these patients?

Table 2 shows 51966 patients in the "TB only" category. Are you saying that this is 100% of non-HIV TB patients in Karnataka from Apr 2010 to Dec 2011? First, are all TB patients tested for HIV? Second, how can you be sure that no HIV co-infected patients are in that 51966? Are HIV co-infected patients regularly taken out of the TB registers in TB treatment sites after they are diagnosed with HIV? Do ART sites also take care of HIV positive patients not on ART?

In summary, I think it is crucial to explain:

1. How you counted patients (TB patients, co-infected patients on ART, co-infected patients not on ART).
2. How you made sure that none of the three groups were double counted.
3. If there were some uncounted patients, how this may have biased the results.

Minor Essential Revisions

Table 1: "before and after initiation of ART" does not seem to be accurate. The text says that everyone with CD4 < 350 were eligible for ART, so this title ought to read something like, "Patients taking and not taking ART".

"Rates of death and failure were significantly higher among TB only patients than in the TB HIV co-infected cohort" Table 2 shows that Default and Failure are higher, not Death and Failure.

The issue of retreatment is an interesting one. Are there any DRS results that would shed light on the issue of relative rates of drug resistance in non-HIV and
HIV co-infected patients?

Discretionary Revisions

Please explain what is a "link-ART centre"

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.