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: Soumya Swaminathan

Reviewer's report:

The authors have done a retrospective analysis of TB treatment outcomes among a cohort of HIV/TB patients treated in the ART centers in Karnataka state, India. The paper is quite clear and well written and conveys an important message. The findings are not particularly novel and in fact are quite expected, but such analyses have not been reported from India, in large cohorts. There are some clarifications required:

Major Compulsory Revisions

1. The outcomes reported are only among co-infected patients reporting to ART centers. What is not known are the numbers of TB patients diagnosed to be HIV+ but never making it to the ART centers. The authors should provide this number and if not available, mention it as a limitation. Obviously, the overall outcome will depend on how good the linkage between TB and ART programs is.

2. It is not clear from the manuscript how many of the patients were already on ART at the time of diagnosis of TB. The authors state that 78% of patients were initiated on first line ART - but was this after the diagnosis of TB? They state later that outcomes were better among patients already on ART but they do not provide the numbers or the analysis to support this statement. If possible, 3 groups can be compared - no ART, ART after initiation of TB treatment and ART prior to diagnosis of TB. Analysis would have to control for CD4 counts in the 3 groups.

3. The authors have provided proportions and crude odds ratios comparing outcomes among TB patients with and without HIV co-infection. A multivariable regression model would provide more reliable results after controlling for all confounding factors.

4. If authors want to show the impact of ART on TB treatment outcomes, they should analyze results by time of initiation of ART after ATT.

Minor Essential Revisions

1. Figure 1 is not required

2. Title can be shortened and simplified

3. Conclusions in Abstract suggest that early initiation of ART improves outcomes - however the time to ART initiation has not been analyzed in this paper. This should be modified.
Level of interest: An article of importance in its field

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