Reviewer's report

Title: Empirical treatment for tuberculosis in HIV: lessons from a cohort study of people living with HIV treated in two referral centers in Recife, Brazil

Version: 2 Date: 18 November 2013

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Title: Empirical treatment for tuberculosis in HIV: lessons from a cohort study of people living with HIV treated in two referral centers in Recife, Brazil.

Authors:
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Mortality among people living with HIV (PLHIV) remains an important area of research. The authors have identified an interesting area with limited research that is worth publishing as this is presumably what happens in many settings especially in the developing world where TB diagnosis can be extensive in these harsh economic times.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Abstract: Add comma to this sentence “To identify factors associated with death we estimated Hazard Ratio (HR) in bivariate and multivariate Cox regression analysis.”

2. Results: HART should be “HAART”

3. Background paragraph 1: This sentence is unclear “Population surveys and autopsy studies have shown that many of those deaths are undiagnosed and therefore untreated tuberculosis (TB).”


5. Background paragraph 2: is “empiric” not meant to be “empirical”

6. Background paragraph 3: Make sentence clear “Here in a routine care setting we estimated the probability of survival of PLHIV with complaint of cough as the
main symptom to suspect of TB as recommended by the Brazilian Ministry of Health”

7. Methods paragraph 1: “consecutive sample of individuals who referred cough to estimate the mortality rate and identify the factors associated with the mortality with emphasis on the empirical treatment for TB.”

8. Methods paragraph 2: Where is the closing bracket for this sentence? “We excluded those with positive bacteriology (sputum smear microscopy or culture for M.tb because they are confirmed.”

9. Methods paragraph 5: Change quitted to quit in this sentence “(smokers at the time of the study or had quit smoking less than six months before)”

10. Discussion paragraph 4: Put comma after study in this sentence “In our study 64.8% had a chest X-ray, of which one in three was abnormal.”

11. Discussion: It is unusual for results to be presented in the discussion section. Ideally the discussion section discusses results in comparison to what is known. Remove all the HRs and ORs and report them in the results section

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

1. In the discussion section of this manuscript, there is no mention of limitations. What were the limitations of this study?

2. To what extent do the authors think that patient or system delay may have contributed to the high mortality rate experienced in those without the three characteristics strongly suggestive of TB?

3. Literature on mortality in HIV-infected people suggests that high mortality rates are experienced in the early periods after treatment initiation. This study found high mortality rates in those (without three characteristics of TB) who received empirical treatment for TB. The authors further speculate that these high mortality rates may be as a result of TB or late presentation of TB. It would be helpful to discuss to what extent this highly reported mortality rate may be associated with use of HAART as opposed to TB treatment?

4. Literature suggests potential gender differences on the impact of HIV and TB. To what extent do your results differ by gender? Are the predictors of mortality in males and females different? If so, speculate why?

Level of interest: An article of importance in its field

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