Reviewer’s report

Title: Factors associated with delayed treatment of tuberculosis in hospitalized patients: a retrospective cohort study.

Version: 1 Date: 16 November 2011

Reviewer: Susanna Sophia van Wyk

Reviewer’s report:

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

INTRODUCTION:
1. First 2 sentences need to be referenced.

2. Second paragraph, second sentence is not supported by a relevant reference. Please provide a relevant reference to this statement.

METHODS:

3. Setting: Please elaborate on setting. What are the TB caseload, cure rate and HIV-TB co-infection rate in this setting? Also say something about the laboratory facilities and what TB tests are routinely done at the lab.

4. First paragraph, second sentence: Adult patients with TB that were hospitalized...during what period? You also need to describe inclusion criteria and exclusion criteria, e.g. age.

5. Third paragraph, first sentence: What do you mean by data were collected in a standardized questionnaire. Does the hospital routinely collect data in a standardized questionnaire when patients are admitted? Or do you mean data were collected from patient records using a standardized data extraction tool?

6. Do you have any data on laboratory turn-around time? When were specimens sent to the lab and when were results reported by the lab? Did patients initiate treatment on the same day results were reported? The question here is, does the lab play an important role in the delay in treatment or is it only the clinical team that plays a role? If data on this is not available, it should be discussed in the limitations.

7. Statistical analysis: You might have more power using delay as a continuous variable rather than categorising it. Also, it is difficult to interpret results if unadjusted analysis was conducted using 3 categories of delay, but adjusted analysis was conducted using only 2 categories of delay. You should either use delay as a continuous variable or you should categorize delay into the same number of groups throughout.

8. Last paragraph, fourth sentence: Should it not be “...using selection of factors associated with delay (rather than death) in univariate analysis”? If it is “death”, then this is inconsistent with the study question and results.
9. How did you establish a significant level of 0.20 to determine the variables that would remain in the model?

RESULTS:

10. First paragraph, third sentence reads “The overall delay until initiation of treatment was 6 days (2-12 days)”. This is unclear. This should be changed to “The median/average delay from hospital admission until initiation of TB treatment was 6 days (IQR/Range 2-12 days)”

11. You’ve included 16 covariates in your multivariate analysis. Did you have enough power to look at so many covariates?

TABLE 2:

12. Footnote: The footnote is unclear. What does “p for the comparison between groups 1 and 2” and “p for the comparison between groups 1 and 3” and “p for the comparison between groups 2 and 3” mean? In the table you report only 1 p-value for the 3 categories.

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

INTRODUCTION:

13. Second paragraph, last sentence: Put it in context. Consider changing it to “According to 2 studies....” or “According to a systematic review conducted by....the main factors associated....”

METHODS:

14. Design: Is this really a retrospective cohort study? Patients were sampled according to their TB status and hospital records were reviewed thereafter to collect data on risk factors for delayed treatment. I would call this a cross sectional study of hospitalized TB patients. Data were collected retrospectively.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

15. Title: Consider including the country or “high TB burden setting” in the title.

INTRODUCTION:

16. Last paragraph, last sentence: Remove the “Then” in front of the sentence.

TABLES:

17. Consider merging table 1 and 2

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

Quality of written English: Needs some language corrections before being published

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