Reviewer's report

Title: Comparison of pulmonary and extrapulmonary tuberculosis in nepal- a hospital-based retrospective case-series analysis

Version: 1 Date: 27 August 2007

Reviewer: Philip Hill

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General
1. Is the question posed by the authors new and well defined?
Not particularly new, except new for their setting. What is missing is a proper description of the clinical aspects of these cases. This is primarily a clinical case review and the authors have made it into a statistical comparison of PTB and EPTB. They should fill in the missing clinical details and make their statistical comparison less prominent.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
The methods are reasonable considering the aims.
How does the total number of these hospital attendees related to the number at the local government DOTs clinics over the time period and the ratio of EPTB and PTB?
There should be much more detail about the clinical side:
Eg. How many had xray-what were the main xray findings overall? Eg. Number of zones with disease on xray, bilateral vs unilateral changes, cavitation etc, what proportion were malnourished, what were the smear results (eg what proportion had a full 3 smears, what proportion were only 1 smear pos plus xray?, what were the outcomes of treatment? And compliance-what is known about compliance. How were the diagnoses actually made in the EPTB? This would give a more balanced paper and also more insight into the completeness of the records.

3. Are the data sound and well controlled?
The main comparison relies on PTB vs EPTB. One concern is how representative of all EPTB in this population are these patients. Hence some attempt to compare to the National programme numbers in this area is worth documenting. One could argue that this comparison has too many potential sources of bias to be the main analysis in a paper. This is of more concern, since it is not possible to adjust by HIV status. While many of those HIV tested were positive, it is likely not to reflect the overall HIV positivity, as HIV testing was clinically driven. Therefore this issue is of concern, but considering the overall rates of HIV in TB in Nepal, it is not a major issue. It would be sensible to do an
analysis on HIV negative only, not necessarily as the main analysis, but to be able to say the results held up in these individuals.

There is a concern about age with respect to the diagnosis in children. While the figures present some data relating age to diagnosis, it isn’t clear within age groups what proportion are due to EPTB or PTB. Similarly, while the median age is presented for each, there should be some age groupings. And it should be clear, if hilar adenopathy is being considered pulmonary TB in children, what proportion of children have this as the sole cause of their diagnosis?

It appears quite remarkable that the records were so complete—were there no incomplete records/lost records?

It should be clear how the diagnosis of diabetes was made, and a comment on how this may or may not reflect the actual number with diabetes.

I am not certain that the 38 concurrent PTB and EPTB should have been part of this analysis. It would seem more sensible to compare EPTB only with PTB only. At least a separate analysis excluding the 38 should be considered and referred to in the discussion.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   In the main the discussion is good. Other additional issues noted above.

6. Do the title and abstract accurately convey what has been found?
   Yes, but will need to be modified along with modifications in relation to above.

7. Is the writing acceptable?
   Yes, I think the authors are writing at a good level.

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**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.