Reviewer's report

Title: A systematic review of delay in the diagnosis and treatment of tuberculosis

Version: 2 Date: 31 August 2007

Reviewer: Jonathan Golub

Reviewer's report:

General
There have been numerous studies on delays in diagnosis of tuberculosis in the tuberculosis literature, with a growing number in recent years. Each study differs slightly in methodology, definitions, study population and statistical analysis. This review attempts to describe these differences and provide an overall look at delay studies.

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

1. A major omission in this review is the definition of delay used in different studies. The authors discuss the differences in start dates and end dates, however, they fail to discuss that in many studies, delay is defined as greater than a specific period of time (e.g. > 60 days, > 90 days), while other times, delay is defined as significantly longer in one group vs another group. I think that this is an important point. While this would be more of an issue if this was a meta-analysis, I think it needs to be considered and discussed.

2. Table 2 suggests that most papers report patient and health care delay. The authors do not discuss these categories separately in the text. They do stratify by many factors, but a Patient Delay and Health Care Delay section may be more clear.

3. Delays in diagnosis of tuberculosis are expected to be different in developed vs developing countries and high incidence vs low incidence countries. The authors chose to combine these categories in their results and parse them out a bit in the discussion. The results section may be more relevant if divided into high vs low or developed vs developing. As a reader, I continually found myself looking at Table 2 to see which country was being referenced. If I knew that the section I was reading was all high incidence or developed countries, I would have a more general idea.

4. In the discussion the authors focus prominently on the "vicious circle of repeated consultations..." but this is not reported in the results section. Several of these papers list multiple visits, while several focus on multiple visits to the same physician, not just the same "level".
5. I am not opposed to the search criteria used by the authors, though confused at the statements "Our intent was not to exclude studies based on strict scientific criteria, but to make the studies comparable" and "to analyze the inaccuracy emerging from different definitions of..." The authors compared many papers that were quite different with varying amounts of missing data. Thus, they are comparable in that they are all delay papers, but not comparable as far as selection criteria or statistical analysis (which is not discussed). The authors report the different ways that start date and end date are reported, but do not discuss the "inaccuracies" that result (as they suggest they will in the abstract).

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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. Tables are referenced incorrectly in the text
2. Reference 41 is incorrectly listed in a statement discussing delays in developing countries (bottom of page 11).

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Discretionary Revisions (which the author can choose to ignore)
1. The use of "most" and "several" need to be carefully chosen. Most cites 6 papers at one reference.

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

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 not competing interests.