Reviewer’s report

Title: Risk Factors for Tuberculosis Treatment Failure, Default, or Relapse and Outcomes of Retreatment in Morocco

Version: 1 Date: 24 November 2010

Reviewer: Reinout R van Crevel

Reviewer’s report:

1. The question posed by the authors is not 100% clear from title, abstract and background. The authors seem to be looking for factors related to failure of primary TB treatment and to evaluate outcome of retreatment of TB for various subgroups. The study would benefit from more focus. I would suggest the following title: “Factors associated with success of retreatment of TB in Morocco; a retrospective cohort study.”

2. The study suffers from the limitation of a relatively small and retrospective cohort study using routine medical records. Patients coming for retreatment were included; outcome of primary treatment for these patients was retrieved from previous records. Drug resistance testing, a major contributor to success of retreatment was only performed in 10% of cases, and very little information is provided on the method of DST, and no data are presented regarding quality control. Other possible confounders including HIV-status and diabetes are lacking. A nested case-control seems appropriate to examine what factors affect outcome of primary treatment, but I wonder if this separate question should be included in a paper on retreatment.

The most important conclusions seem justified: those who default during primary treatment have a higher chance to default during retreatment; those who fail initially have a higher risk to fail during retreatment.

3. Presentation of data:

The result section could be shortened and improved.

The added value (other than for the Moroccan NTP) of Table 1 is unclear. Similarly, the results of DST on this small sample of strains can be summarized in the text instead of Table 2.

The results of retreatment (stated in the abstract and the result section) could be summarized in a table.

There are many missing data in Table 3, for which little explanation is given. The authors acknowledge themselves that subgroup analysis is limited by the small numbers of patients included in the study. In the final paragraph of the text it is stated that male gender is an independent risk factor for default, however this is not significant (Table 4). There is more discrepancy between Table 4 and text.

The abstract mentions 292 patients presenting for retreatment, the result section 291
major revisions;

4. I think the study would gain much from focussing solely on outcome of retreatment (leaving out the analysis of factors related to outcome of primary treatment), and clarification of the study objective in title, abstract and background.

5. Second, the manuscript would be much stronger is drastically shortened, in balance with the amount of data included and the novelty of findings. the current tables could be replaced by one table related to retreatment (comparing successful and unsuccessful retreatment).

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

**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 I have no competing interests