Reviewer's report

Title: Basis for treatment of tuberculosis among HIV-infected patients in Tanzania: the role of chest x-ray and sputum culture

Version: 1 Date: 1 August 2007

Reviewer: Giuseppe Ippolito

Reviewer's report:

The study reports an important experience of screening for active TB in a high HIV-TB burden country.

This study may provide useful information for planning investigations aimed at evaluating strategies for active Tb case finding in high burden countries. On the other hand, due to intrinsic limitation of study design, the evidence provided by the study should not be viewed, and should not be presented, as immediately relevant for informing changes in TB diagnosis policies in high burden countries.

Specific points

Abstract
I would replace “required treatment” with “were started on treatment” or similar
The last sentence should reflect the fact that the study provide only preliminary evidence.

Methods
The methods used to decide when to start TB treatment is crucial for this study and should be reported in grater detail. In the discussion it is mentioned that radiological response to a 10 day course of antibiotics was also assessed in patients with pulmonary infiltrates. Citation supporting the validity of this procedure should be provided as well as the number of patients who underwent this trial of antibiotics. Did the authors also evaluate the response to non Tb active antibiotics of symptoms in AFB negative patients?

The reading of chest X-ray by a single radiologist is a main limitation of the study, and should be dealt with in the discussion. It should be also stated if the radiologist was blinded to the clinical information related to the patient.

Results
The paragraph describing the overlap of different criteria for TB diagnosis is sometimes difficult to follow. The author may wish to consider replacing figure 1 with a figure based on a Venn diagram reporting distribution and overlap of different criteria

More details should be reported on chest X ray result e.g. how were different pattern distributed? In how many cases, by different pattern, TB therapy was started and how many received a different diagnosis.
Discussion

A more detailed discussion on the available evidence on diagnostic accuracy for TB of chest X ray for HIV-infected and non-infected individuals and of reproducibility of chest x ray reading is needed.

Problems for making mtb culture and chest x rays available for persons with HIV in high burden countries should be addressed

I would also include a clear statement indicating that this study should be viewed as an “hypothesis generating study”

reevaluate after major revision

**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 no competing interests'