Reviewer’s report

Title: Tuberculosis screening of travelers to higher-incidence countries: A cost-effectiveness analysis

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Reviewer: George Janossy

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1. Is the question posed by the authors well defined?
   The question of cost-effectiveness in terms of identifying currently infected individuals who travel to other countries is well-defined in this paper due to the careful assessment of the epidemiological and clinical features of tuberculosis in the Americas. Nevertheless, one of the features, the costs of the TST test in the U.S.A., renders this investigation "restricted" to the U.S.A. and can not be viewed as of global interest.

2. Are the methods appropriate and well described?
   Yes

3. Are the data sound?
   Yes

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

5. Are the discussion and conclusions well balanced?
   From the points of view of travel on the American continent, this is a well balanced study. Nevertheless, there is a severe danger that the conclusions about the low cost-efficacy of TB-screening by TST are not relevant -- and might remain disappointingly misleading -- for other parts of the globe for two reasons.

   (i) In spite of the impressive algorithm and the high intellectual value of considering small details as well (for example discussing the potential loss of earnings due to attending the diagnostic service facility while undergoing TST and other diagnostic investigations), important wider significant issues (such as the loss of earning due to tuberculosis and the spread of infection in host environment within the local communities) remain incalculable and therefore do not feature in the equations.

   (ii) the high-cost of testing can lead to epidemiologically unjustified positions and conclusions. Two points are here: first, the costs in the U.S.A. are very high and these are unlikely to be repeated in Africa, Asia and Russia. Therefore in other countries the TB screening might become cost-effective. Second, these authors should publish this current paper in the U.S.A. -- and continue in collaboration with the World Health Organization to analyse the question where the TST (and interferon) costs are regarded as one of the crucial variables. This is to
investigate that how low the bulk laboratory service costs need to drop in order to render the (essential and much wanted) TB surveillance cost-effective IN THE DIFFERENT REGIONS of the world.

6. Are limitations of the work clearly stated?
Not. The author do not place sufficient emphasis to explain that their results are cost-dependent and therefore strictly U.S.A.-relevant (see comments above)

7. Do the authors clearly acknowledge any work upon which they are building?
Yes. Still, a bit more emphasis (and hints about cost-comparisons) between the TST and the interferon-based assays published in their previous paper (Intern.J.Tb Lung Dis. 2007; 11: 16-26) is recommended.

8. Do the title and abstract accurately convey what has been found?
Yes, but the restricted relevance to the U.S.A. - with potentially opposite conclusions in other areas of the globe - should be a stated warning signal there.

9. Is the writing acceptable?
Excellent.

This reviewer suggests that this excellent and sensibly important paper should be published as an accompanied paper to their previous work in an American journal or in Intern.J.Tb Lung Dis. Then, as a next phase of investigation, they should alter the design and re-investigate the parameter "COST" as a variable in order to define the level of laboratory costs (as a potential 'higher volume' investigation) in order to render TB surveillance a cost-effective reality. This is a more sensible approach to the countries with restricted finances accompanied by devastating disease-patterns than regarding the 'COST' parameter in its artificially high level position as a standard "un-alterable" feature of this epidemiological problem.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: 
'I declare that I have no competing interests'