Reviewer's report

Title: Risk of Latent TB infection in individuals employed in the health care sector in Germany: a multi center prevalence study

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Reviewer: Alice Zwerling

Reviewer's report:

The use of IGRAs in HCWs is an active area of research. While some countries have indicated these blood based tests can be used to replace the TST in screening and serial testing HCWs for LTBI, other nations have been more cautious, and continue to use the TST or use the two tests in a sequential manner. A major strength of this study is the sheer size, at over 2000 HCWs, it would be the largest study using IGRAs in HCWS in a low incidence setting. However, authors chose not to repeat the TST, at the time of QFT testing. As such, it is difficult to compare the TST and QFT results. Secondly, as the authors mention, the cross-sectional design, limits the authors ability to speak to serial testing, and the conclusions that can be made from such an analysis. None the less, this study will be a useful addition to this field of research, and I commend the authors for achieving such a large study sample.

Major Compulsory Revisions

There are a number of findings that are not consistent with similar studies conducted in low incidence settings, and without TST results to in a sense validate these results to a gold standard (of a sort), I think it might be helpful for the reader if the authors elaborated further on these findings in particular. Ex: High rates in administrative staff? no occupational risk factors were significant? Higher rates in individuals from Western Europe than former Spviet Union? Has this been seen in German HCW studies before? Possible explanations?

- How many HCWs were approached, what percentage consented?

p12. end of 2st paragraph: Last two sentences are difficult to understand, are the results contradictory or do they not indictae an increased risk for physicians.

Minor Essential Revisions

- Intro 2nd paragraph, paragraph should not begin with "But"
- p4. "those assumed for German HCWs so far" perhaps authors could include examples so that readers understand what is the expected rate in Germany
- Discussion, 2nd paragraph should read >5mm, not <5mm
- Table 1, space between BCG and vaccination
- Tables could be tightened up a bit
Discretionary Revisions

I think it is unfortunate that serial testing of a subset of HCWs was not done over the 4 year span of the study. While there are now over 20 cross sectional HCW studies using IGRAs in low incidence countries, serial testing data is remarkably scarce. This data would also allow the authors to consider yearly risk of infection, and compare that among different occupations/occupational risk groups. Perhaps this could still be done?

**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 receivd a travel award from Cellestis to present at the 2nd Global Symposium on IGRAs in June 2009.