Reviewer's report

Title: T-SPOT.TB responses during treatment of pulmonary tuberculosis

Version: 1 Date: 7 November 2008

Reviewer: Edward Graviss

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Major Compulsory Revisions:

The authors correctly attempt to exclude extra-pulmonary diseased individuals (more severe) from the data set, but it is unclear if the data set also includes individuals who are both pulm/extra-pulm infected. If not then please state. I assume there are and if so, then describe the frequency of this third "site-of-infection" strata between both treatment groups. Forty-one individuals had cavitary disease, but what proportion of these were in the pulm/extra-pulm strata?

It is not clear why the authors left a single HIV subject in the data set. The analysis should be run with the "one-less’ data set.

The FDA approved T-SPOT.TB assay uses a qualitative cut-point of >=8 to determine a positive assay after subtracting out the baseline results. Does this make a difference in the results seen in this study? What proportion of the clinical specimens had results in the borderline area? The current qualitative definition of positive should be used.

Minor Essential Revisions

In the statistical analyses section the authors mention, "An independent correlation structure with robust standard errors was used for the GEE models, ...” What were these robust standard errors and how large were they?

Several studies have shown that BMI is a better maker of severity than weight. Can BMI be gleaned from the data set or only weight?

In the discussion, the authors correctly assess that their results "indicate that the tests utility in evaluating or predicting treatment response in individual patients appears poor”, this seems appropriate, but the overall sample size is relatively small and the issue regarding pulm vs extra-pulm has not been addressed. Any new analysis will need to control for these other factors such as HIV status and or pulm/extra-pulm status.

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:

In the last five years this reviewer has received funding by both Oxford Immunotec and Cellestis to perform IGRA studies.