Reviewer's report

Title: Longitudinal Analysis of Antibody Responses to Trachoma Antigens Before and After Mass Drug Administration

Version: 1 Date: 24 March 2014

Reviewer: Phil Giffard

Reviewer's report:

This is an interesting study that is potentially very useful for informing trachoma elimination strategies. In some ways it was negative, in that it showed that the antibody responses addressed in the study are likely not very useful for indicating the success or otherwise of mass drug administration programs. However, it is still important information.

Major Compulsory Revisions

1. What was the basis for selecting samples for inclusion in the experiments that lead to Fig 3? There seems to be a bias towards those samples that showed a medium antibody level, and so were more likely to exhibit a detectable reduction in titer after the MDA. While I am assuming that samples from trachoma negative patients were omitted with some justification (although this was not stated), the omission of some of the high IgG titer samples may have given the impression that detectable reduction in titer during the six month post MDA period was more universal than it actually was.

2. The evidence for concordance, or lack thereof between the results from the different antigens is either very weak, or the statistics are poorly explained, or both. Also, it is likely that even if the difference in concordance between responses to the different is real, it is small and of doubtful clinical/practical significance. This aspect of the analysis should be performed better and/or explained better, or omitted.

3. The three month post-MDA samples referred to in the text (line 93) don’t seem to be referred to again. Were they analyzed, and if so, do the results support the conclusions of the study?

Minor essential revisions

None

Discretionary revisions

4. The Discussion is quite long and could be edited for additional conciseness and clarity. In its current form is is difficult to determine what are the really important findings and what is peripheral.

5. The Introduction has similar problems to the Discussion - it is diffuse and it is difficult to determine the central question being addressed

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.