Reviewer's report

**Title:** A systematic review of serological outcomes after syphilis treatment in HIV-infected and HIV-uninfected persons: rethinking the significance of the serofast state

**Version:** 1  
**Date:** 29 June 2015

**Reviewer:** Phillip Read

Reviewer's report:

Discretionary revisions

1) p4 line 69- The WHO estimate is indeed for 2008, but it was not released in 2008. I would rephrase to say "The WHO estimated that in 2008...."

2) p13 265-273 I often wonder when looking at poorer response in ELS whether there is a potential that some LLS is included as ELS.. for example some definitions include any titre above, say 1:16 as ELS, but if in fact this was a case of LLS with an abnormal high titre (and presumably a recalcitrant immune response as described) one might end up with lower response for ELS due to non-discriminatory misclassification.

3) p20 439- I would re-iterate the 1 yr/2 yr ELS definition issues between europe and US, and comment if it effects results on ELS response

4) Overall- it seems that either non-response (less than 4 fold drop) or a serofast state after a documented four-fold response are both treated as serofast in this study. It would be worth clarifying in the methods and results which exact situation they are referring to, as these may not be the same populations.

5) Overall I think this is a good synthesis of the existing data and draws considered and non-hyperbolic conclusions, that are in fact- reassuring.

6) With a increasing use of PCR I often find RPR negative confirmed early primary syphilis- this presents a challenge as one can only go clinically- can the authors comment on this situation, do any studies look at this scenario?

**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'