Reviewers report

Title: Systematic review of methods for individual patient data meta analysis with binary outcomes

Version: 4 Date: 22 May 2014

Reviewer: Johannes Reitsma

Reviewers report:

Major compulsory revisions
None

Minor essential revisions
+ I think projects like these are also known as meta-epidemiological research. Perhaps mention this term in the manuscript.

+ Introduction, 4th paragraph. DerSimonian and Laird in itself is not a two-step random effects approach. Please rephrase along the following lines: “The well-known random effects approach of Der Simonian and Laird is frequently used in the second step of a two-step IPD approach.”

+ I would replace “trials” with “primary studies” or “studies” in the manuscript as you include both intervention, diagnostic and prognostic studies, and trials have the connotation of studying an intervention.

+ Results, 4th paragraph. The sentence ‘..while the other IPD-MA also included observational studies.’ is still unclear. I suspect that IPD meta-analyses either included only randomized studies or only observational studies (like a diagnostic review), but if you identified IPD meta-analyses including a mix of randomized and observational studies then this is should be specifically mentioned.

+ Statistical methods, 4th sentence. ‘… to pool the overall treatment effect. Because you include diagnostic and prognostic meta-analysis, it is more appropriate to use “to pool the overall effect”.’

+ Table 4 Measures of heterogeneity. I would be interested to stratify the results in this table whether 1-stage or 2-stage approach was used. I assume that several 1-stage meta-analyses use the 2-stage approach to calculate measures of heterogeneity.

+ Figure 2 and 3. “Number of IPD meta-analysis” might be a more direct label for the y-axis

Discretionary revisions
None
Level of interest: An article whose findings are important to those with closely related research interests

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'