Reviewer's report

Title: The assessment of the quality of reporting of meta-analyses in diagnostic research: a systematic review.

Version: 1 Date: 24 January 2011

Reviewer: Erik von Elm

Reviewer's report:

Major compulsory revisions:
1. Page 7/8: The authors have imposed several inclusion criteria (in particular, criteria 3 to 5) that represent markers of both study and reporting quality. It is unclear to me why the sample of eligible reviews undergoes this additional pre-selection. According to the flow chart 751 citations enter step 3 and only 304 are left after step 5. This means that about 60% of reviews are excluded for quality reasons at this stage and implies that the final study sample is likely not representative. Rather it is a selection of reviews of better quality. This should be clearly mentioned as a limitation instead of presenting it as a 'representative sample' (page 13).

2. Page 9, 1st para of Results: I miss a description of the 236 included articles. Readers should not have to consult a list in the Appendix for this. Basic characteristics to be included in either core text or a table could be: time period of publication, journals, topic fields etc. Otherwise, it is difficult to put the results in context and assess their generalisability.

3. The differences between time periods may be confounded by inclusion of the HTA reports e.g. if most of them were published after 2004. This could be assessed in a sensitivity analysis excluding HTA reports.

4. Figure 2 and 4 should include results for all 27 PRISMA checklist items and not just the statistically significant ones.

Minor essential revisions:
1. “QUOROM” is misspelled throughout the manuscript.

2. Abstract Background: This sentence does not provide any background information but reads like the first sentence of the Methods section.

3. Abstract and Methods section do not include any rationale for the cut-off after year 2004.

4. Page 4: The first three paragraphs of the introduction are very general and not always to the point, i.e. quality of systematic reviews of diagnostic test accuracy.

5. Page 6, last sentence of Introduction: is misplaced, should be incorporated in Methods section.

6. Page 12, 2nd paragraph “In the last decade…” It is unclear which time frame is meant here given that only 8 years were compared (2001-04 with 2005-08)? The
same is true for later descriptions of time frames such as “over the last twenty years” (this was not the sampling frame in the literature searches).


8. Figure 3: 1.) It covers years 2000 to 2008. It is unclear why this time period was chosen here. 2.) Proportion of studies without quality assessment is compared to those using QUADAS. But how about studies using another tool, in particular in the years 2003 to 2008? Rather than drawing separate bars (and omitting one group), this could be shown in a bar chart with all bars going up to 100% and three bar parts for ‘no tool’, ‘QUADAS’ and ‘other tool’ depicting the different proportions.

9. The manuscript needs thorough editing with regard to style, language and punctuation. In some sentences the syntax is wrong or incomplete, e.g. page 8 middle “…and response the PRISMA statement” or page 9 of Results: “Thus there was 100% agreement on the studies on which studies to include.” Other sentences are overly long e.g. last sentence of page 4.

Discretionary revisions:

1. In the results section, several percentages are missing with the reported proportions.

2. Page 14, 2nd paragraph: The argument about improved statistical methodology is not very helpful here, given that this is not the study’s scope. I suggest dropping it.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.