Reviewer's report

Title: Development of AMSTAR: a measurement tool to assess the methodological quality of systematic reviews.

Version: 2 Date: 2 December 2006

Reviewer: Joseph Lau

Reviewer's report:

General
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Several minor changes have been made in the manuscript. However, they do not address several of my major comments.

For instance, item #10, where it is explicitly stated that "An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot) and/or statistical tests (e.g., Egger regression test)."

The problem of the funnel plot to detect publication bias is increasingly recognized, these issues are summarized in my recent article: Lau J, Ioannidis JPA, Terrin N, Schmid CH, Olkin I. The case of the misleading funnel plot. BMJ 2006;333:597-600.

My concern is that by simply using old methods/procedures from earlier lists where each one of those items has not been adequately evaluated, we are potentially perpetuating misleading concepts (funnel plot being one problem). As the authors in this report admitted, AMSTAR is not an original evaluation of the factors they included, but a factor analysis of items from old lists plus a few new things added.

My group recently had the experience of producing an evidence report in which we had to review the quality of over 20 published systematic reviews. We created our own criteria list (compare with AMSTAR it has more than twice the number of items, greater details and requires contents interpretation) to evaluate these systematic reviews. The AMSTAR tool that yields answers of yes or no does not adequately capture the nuances of important issues in judging the quality of these systematic reviews. I found the AMSTAR tool of little help in characterizing the quality of the systematic reviews in this case.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Acceptable

Statistical review: No
Declaration of competing interests:

I declare that I have no competing interests.