

Reviewer's report

Title: Development of AMSTAR: a measurement tool to assess reviews.

Version: 1 **Date:** 29 August 2006

Reviewer: Joseph Lau

Reviewer's report:

General

The manuscript describes the development of a new tool to assess the methodological quality of systematic reviews. This tool builds upon items from a previous scale and another checklist. Factor analysis was conducted on these items using a database of 99 paper-based reviews and 52 Cochrane systematic reviews and identified 11 components. One item from each component was selected by an expert panel, which then forms the new tool. This work represents minor tweaking of prior work by others and provides no new insight into assessing the quality of systematic reviews. Even though the objective of the research was to develop a user-friendly tool, the final list of items has not really been thought through as to the user friendliness or practicality.

Additional items added to the prior checklist or scale were rather arbitrary (there is no specific criteria to define "advances in the field") and redundant with items already on the list (e.g., publication bias). While publication bias is a major threat, there is no proof that methods of assessing publication bias are valid or that assessing publication bias leads to a less biased review.

While "the tendency for research with positive findings to get published more than once" does lead to bias, this redundant publication is not "publication bias" per se.

Since this tool is specific for systematic reviews, the title should include the term "systematic" before "reviews".

The selection, composition and size of the expert panel were not given.

The way that some of the items in Table 2 are framed is either trivial, quite subjective or open to various interpretations. For example, #5 "Was a list of studies (included and excluded) provided?" 99%+ of the published systematic reviews I came across listed included studies. For the excluded studies, at what point are we talking about exclusion? Journals typically do not want long list of references of rejected studies. Statement of conflict of interest is required by all peer reviewed journals I came across, the usefulness of item #11 is doubtful.

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

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?: Reject because too small an advance to publish

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