Reviewer's report

Title: Evaluation of QUADAS, a tool for the quality assessment of diagnostic accuracy studies

Version: 1 Date: 17 October 2005

Reviewer: Christopher Maher

Reviewer's report:

General

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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)

1. I would prefer that the manuscript include a more complete description of the QUADAS including operational definitions for each item. Could this be included as an appendix please?

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Discretionary Revisions (which the author can choose to ignore)

1. The authors point out that the Quadas is a measurement. There are additional analyses that could be conducted to evaluate the properties of the measurements produced with the Quadas. There are a range of procedures that could be undertaken to test if the individual items should be combined to form a scale (as is sometimes done for quality scales for RCTs) and if so whether the scale represents one or more dimensions. It would also be possible to look at frequency of endorsement of items and correlation between items to see if some items are potentially redundant. I think the optimal number of items is an important issue because some methodological quality scales that have been proposed in other areas are very long. Having generated the list of QUADAS items with a consensus approach it would be good to use an empirical approach for item validation and item reduction. I look forward to reading the meta-epidemiological regression analysis that the authors propose for the future.

2. I think that it would be useful to refer to Lijmer's paper and relate the items in Quadas to the results Lijmer found. (Lijmer JG, Mol BW, Heisterkamp S, Bonsel GJ, Prins MH, van der Meulen JH and Bossuyt PM (1999): Empirical evidence of design-related bias in studies of diagnostic tests. JAMA 282: 1061-6.)

What next?: Accept after discretionary revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests'