Reviewer's report

Title: Factors affecting the accuracy of the urine dipstick test for the detection of bacteriuria or urinary tract infections. A meta-analysis.

Version: 1 Date: 17 October 2003

Reviewer: Y Waisman

Reviewer's report:

General

In this meta-analysis authors investigate and summarize pre-defined factors that may affect accuracy of the urine dipstick test for the detection of bacteriuria or urinary tract infections (UTI). 1) The question posed by the authors is well defined. Although not new, the question asked focuses on a specific aspect of UTI diagnosis using dipstick, which is important and relevant for clinicians evaluating patients for possible urinary tract infection.

2) The methods used are well described and include sufficient details to be replicated. It seems that the study was carefully designed, and some of its' methodological problems are properly addressed in the methods sections. Conclusions based on the statistical analysis performed (DOR, ln(DOR), SROC curves, etc...) are sound, however, I would recommend that a statistical review, by a statistician, is performed prior to the decision on publication is made to confirm that the statistical analyses used were the most appropriate for this study. My knowledge in statistics falls short to be conclusive on this subject.

3) Data collection was inclusive, comprehensive, and satisfactory.

4) Although space does not pose a problem for the journal, the manuscript seems to be too long. In my opinion, too many tables and figures are presented in the results section.

5) In the discussion section, authors tend to repeat some of the results reported in the results section rather than discussing the meaning and validity of their results. The authors should address this issue. Conclusions are adequately supported by the data.

6) The title accurately describes study purpose and results. Perhaps a matter of style only, but the language in abstract seems to be somehow confusing and not clear. For example, a sentence like “Within study groups, accuracy was dependent on the cut-off point, the presence of clinical information and whether... Abstract’s conclusions are too general, should be more specific as in the “Recommendations for practice” section in the discussion, Ideally, a shorter version of the paragraph.

7) The English language throughout the manuscript is poor, and should be edited/improved significantly. Some illustrative comments are as follows:

-Abstract: The title/item “Objectives” or “Aims”, rather than “Background”, better describe the content in the first paragraph. Results should be presented in a more clean and clear style, and in addition, be more inclusive. Abstract’s conclusions are too general, should be more specific as in the “Recommendations for practice” section in the discussion, Ideally, a shorter version of the paragraph.

-Some terms such as “Disjunctive” and Conjunctive pairs”, although defined in the methods section of the manuscript, are not commonly used and better terms should be found. In the conclusions
section of the discussion, the paragraph starting with “Overall, …” describes results rather than conclusions. It should be addressed by the authors.

Discretionary Revisions (which the author can choose to ignore)

4) Although space does not pose a problem for the journal, the manuscript seems to be too long. In my opinion, too many tables and figures are presented in the results section.

4a) Choose better wording for title of manuscript.

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

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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: Not suitable for publication unless extensively edited

Statistical review: Yes