Reviewer's report

Title: Utilization Patterns of Chinese medicine and Western medicine under the National Health Insurance Program in Taiwan, a population-based study from 1997 to 2003

Version: 1 Date: 29 October 2007

Reviewer: Lehana Thabane

Reviewer's report:

General

All comments are compulsory.

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

This is a report of a study to analyze data from a national health insurance database to model utilization of Western medicine and Chinese medicine. Generalized estimating equations (GEE) were used to model utilization data because of potential clustering of repeated measurements within a patient.

This is a statistical review of the paper focusing primarily on the design, methods and analytic strategies of the study.

1. Abstract, Methods: State the criterion for statistical significance.

2. Abstract, Results: Report the main results of GEE analysis as OR (95% CI) as indicated in the Methods section. Also report associated p-values.

3. Methods, Statistical analysis:
   a. State clearly what potential predictor variables were considered for all outcomes.
   b. State how predictor variables were selected for inclusion in the multivariable (adjusted) analysis.
   c. Consider stating the hypothesis for each predictor variable with clear rationale or justification for the hypothesis.
   d. Consider providing a reference for GEE analysis. It is not a common statistical technique and some readers may not be familiar with it.
   f. State what correlation structure was used or assumed for analyses and provide a rationale for the choice.
g. Were there any missing data? If so, how were these handled in the analyses?

4. Results:
   a. Consider highlighting only the key results from the results tables instead of every result.
   b. Consider providing a CONSORT-like diagram to summarize the selection of patients for inclusion in the analyses.

5. Discussion: Overall the discussion seems too long. In general, this section should cover:
   i. the key findings or results of the study;
   ii. how the results compare with results from other similar studies;
   iii. the limitations of the study; and
   iv. the clinical or policy implications of the results.
   Each of these can be done in one or two paragraphs.

6. References:
   a. Apply the adopted bibliography style consistently. For example, the year of publication for the journal should be followed by a semi-colon, not a comma.
   b. Provide the date of last access for references 13 and 20.

7. Table 2: Consider reporting the estimates of the intra-class correlation coefficient for each outcome.

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: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

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