Reviewer's report

Title: Development of explicit criteria for cataract extraction by phacoemulsification

Version: 1 Date: 19 May 2005

Reviewer: Joanne Tobacman

Reviewer's report:

General
The authors have done a commendable job in studying and applying appropriateness criteria for patients undergoing phacoemulsification for cataract.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The authors must define their category "indeterminate" (p.25) and how this is rated. I would have expected "indeterminate" indications to be considered "uncertain" so it is unclear how these are included as appropriate or inappropriate.
2. The criteria for surgical complexity (Appendix 1 - p. 2) need to be included in the text, and the method for determining how these are categorized needs to be explained.
3. The category "necessary and appropriate" has been omitted. This category has been helpful to justify surgeries for patients with diabetic retinopathy, in order to better visualize and treat the disease. It is unclear how the status of the diabetic retinopathy (Appendix 1 - p.22) is determined.
4. If criteria are developed only from review of surgeries that have been performed as suggested (p.15), then it becomes impossible to consider underuse of the procedure.
5. Are any non-ophthalmic criteria being considered in relation to appropriateness, such as anticipated life-expectancy?
6. Inclusion of another functional category, such as inability to work, should be considered.

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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. Phacoemulsification has been done since the 1970s and some of the cataract extractions that were reported previously in assessment of appropriateness were performed by phacoemulsification (p.2).
2. The consensus development techniques were used in the 1980s and 1990s by the Rand investigators and others (p.2).
3. Please clarify if all of the ophthalmologist panelists performed cataract surgeries.
4. Please state if the preoperative visual acuity was the best-corrected acuity, and state how it was determined, if possible.
5. Please consider the adequacy of the medical records and if there were problems in obtaining the required documentation.
6. Consider cataract as a condition, not a disease (p.4).
7. Effectiveness, not efficacy is being measured (p.5).
8. Changes in ratings were measured, not estimated (p.7).
9. Statistical analysis of kappa scores to assess agreement/disagreement would be helpful.
10. Please clarify how the misclassification error (p.11) was determined.
11. Please clarify paragraph 2, last sentence, p.12.
12. Non-ophthalmologists have often been included in the appropriateness panels because of their role in referring patients for surgery. If not referred, patients may not be considered as candidates for surgery. Clarification of how patients come to consideration for surgery might be helpful.
13. Please clarify the last two sentences in first paragraph on p. 14.
14. Please reconsider the question of "bias" in relation to scoring of indications for which data are limited or non-existent. These situations may truly be "uncertain" and rated as such.

15. Role of glare in affecting driving in relation to livelihood requires more clarification. The category of cataract limiting work would include this situation (p.23, and be rated as a more severe functional limitation than that assoicated with glare.

16. Digits are reversed for inappropriate in Round 2 (283 vs. 238, p.25).

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: Yes

Declaration of competing interests:

I declare that I have no competing interests.