Reviewer's report

Title: Risk factors for delirium in acutely admitted elderly patients: a prospective cohort study

Version: 1 Date: 9 February 2005

Reviewer: Alastair Macdonald

Reviewer's report:

General

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Major Compulsory Revisions

1. It should be made clearer in the title and throughout the text that the risk factors being studied are for the presence of delirium 48 hours after admission, and not incident delirium. Although, as the authors say, delirium 48 hours after admission will comprise both cases who were delirious at admission and those who became delirious after admission, I think it would be legitimate to use the term “prevalent delirium” throughout for their study.

2. In paragraph 2 page 4 the authors seem to justify this study by contrasting it with risk factors studies for incident delirium, but they do not specifically mention other studies of risk factors for prevalent difference in medical inpatients, of which there are several. The reader needs to know how this present study advances our understanding of these. This paragraph is very important and the argument should be made clearer.

3. The body granting ethical approval for the study should be named, and so should any funding source.

4. Increasingly stringent criteria for research on people with cognitive impairment mean that subjects entering studies like this differ from all admissions, so the readers need to know as much as possible about how the sample was derived from all admissions, and, if possible to be able to compare the demographics of those entering with those not for whatever reason.

5. The authors should be cautious about suggesting that the risk factors they identify may help early identification unless they are able to support this by showing the positive and negative predictive values for such factors.

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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)

They must make the distinction between incident and prevalent delirium clear throughout, especially when reviewing the literature on risk factors and in the Discussion. Words like “occurrence” (page 4 end of second paragraph) should be replaced by more definite terms.

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Discretionary Revisions (which the author can choose to ignore)

The surprising finding about co-morbidity may be explained by the balancing relationship with cognitive impairment- the more dementia, the less physical illness is needed to tip someone into delirium.
What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No

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