Reviewer's report

Title: Inappropriate Medication Use among the Elderly: a Systematic Review

Version: 1 Date: 28 May 2011

Reviewer: Michael Buck

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Major Compulsory Revisions

1. None

Minor Essential Revisions

1. In Table 2 the Lai et al. 2009 paper, the “No. of medications” section appears to be inadvertently duplicated with results from the Bierman et al. 2007 section. The correct values from the Lai paper are: “4–6 2.701 (2.696–2.706) <0.001” and “#7 4.528 (4.517–4.538) <0.001”. The other Sex and Age sections for the Lai paper have been transcribed accurately.

2. The order of the authors needs to be reversed for reference 9, Jano E, Aparasu RR as Jano is the first author of the paper titled, “Healthcare Outcomes Associated with Beers’ Criteria: A Systematic Review”. The ordering and spelling also should be corrected for the same citation in the first paragraph of the Background section.

3. In the section “Reading and data extraction”, the authors refer to a “previously tested instrument” without any reference to details or explanation regarding this instrument. A citation to published work regarding this instrument or another sentence or two describing this instrument may help clarify this for readers.

4. The sentence “The results discouraged the use of method.” should be corrected to “The results discouraged the use of the method.”

5. The following sentence “That choice was made in view of the greater representativeness of secondary data and of the power to detect differences, because they contain records on large numbers of people.” should be incorporated into the Methods section after the sentence that begins “This paper examines the studies of secondary data sources”. This will give the necessary explanation for your chosen research method to focus solely on this study type.

Discretionary Revisions

1. The last sentence in the Results section, “Pugh et al associate geriatric care with protection against IMU.” seems out of place considering it is the only sentence discussing an outcome which is not the focus of the authors’ review. Removing this sentence would focus the reader’s attention on the primary outcomes derived from your review which seems more appropriate.
2. The final concluding sentence of the Discussion section suggesting the need to include studies not found in mainstream journals does not give any reasons for their inclusion.

3. This reviewer felt that the authors conducted a thorough review of the elderly inappropriate prescribing domain that is an up-to-date, relevant summary of an area of research that has had many hundreds of articles published to-date. Considering that there have been twenty years of research and multiple other review articles published such as “Liu (2002), Jano (2007), Zhan (2005), and Gallagher (2007)”, the future research section could contain stronger, more actionable suggestions other than the need for yet more studies which appear to have remained relatively unchanged for a few decades. This section would be stronger if the authors were to summarize the insights from their review with review papers done by others. A few review articles’ citations are listed here:


**Level of interest:** An article whose findings are important to those with closely related research interests

**(Quality of written English):** Acceptable

**(Statistical review):** No, the manuscript does not need to be seen by a statistician.

**(Declaration of competing interests):**

I declare that I have no competing interests.