Reviewer's report

Title: Costs of potentially inappropriate medication use in residential aged care facilities

Version: 0 Date: 03 Aug 2017

Reviewer: Carole Parsons

Reviewer's report:

This is a well-written manuscript describing an interesting study of the costs of PIM use in Australian residential aged care facilities. I have a few comments which I feel should be addressed before this manuscript is acceptable for publication in BMC Geriatrics.

1. Page 4, line 74. The sentence "This list was based evidence of moderate quality" requires clarification.

2. The authors assessed PIM use using the 2015 Beers Criteria. However they describe the addition of some medications into some of the criteria in order to reflect the medications available in Australia rather than the US context. I would question whether this is therefore an amended version of Beers and if so can the results be compared with other studies using Beers Criteria. I also wondered whether the authors had considered using STOPP/START; these indicators reflect European prescribing and may be more appropriate for the Australian context? I think further justification of using the Beers Criteria to assess PIM use is required.

3. Please amend "proton-pump inhibitors scheduled for >8 weeks" to "proton-pump inhibitors prescribed for >8 weeks", page 10, line 211 and elsewhere as appropriate.

4. In the discussion, the authors did not explain why patients not exposed to a PIM were more likely to have a diagnosis of dementia. I think this aspect of the study findings requires some further explanation and discussion.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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