Author’s response to reviews

Title: Use of potentially inappropriate medication and polypharmacy in older adults: a repeated cross-sectional study

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Karlskrona 22st October 2019
To the editors
BMC Geriatrics

Dear editors,

Thank you for considering our manuscript entitled: Use of potentially inappropriate medication and polypharmacy in older adults: a repeated cross-sectional study after revision for publication in BMC Geriatrics.

We appreciate the reviewers’ feedback and the thoughtful suggestions of ways to strengthen the paper further. We have attempted to address the comments in full and enclose a point-by-point list of our responses in the uploaded file below. Please note that the changes in the revised manuscript are marked by Track Changes.

This manuscript has neither been published nor is currently under consideration for publication by any other journal. None of the authors have any conflicts of interest regarding the publication of this manuscript. All authors have read the final revised version of the manuscript and agree on its publication.

Yours sincerely,

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BMC Geriatrics operates a policy of open peer review, which means that you will be able to see the names of the reviewers who provided the reports via the online peer review system. We encourage you to also view the reports there, via the action links on the left-hand side of the page, to see the names of the reviewers.

Reviewer reports:

Marci Dearing, PharmD (Reviewer 1): Thank you for your answers and revisions. A few additional comments:

1. ADR is still in the abstract and it is ADE everywhere else.
Answer: We apologise that we missed to changed ADR to ADE in the abstract. Thank you for making use aware of this.

2. I recommended specific p-values be reported however I am not sure the journal will accept 0.000. Additional statistical review recommended.
Answer: The analyses preformed in STATA give an significant levels below 0.000 are given a significant level of 0.000. I suggest that we change the p-values back to \(<0.001\) and \(<0.05\) because we do believe this is better for the reader then 0.000. For p-values not significant (ns) the full p-value will be presented. This is a compromise between presenting all actual p-values and only using \(<0.001\), \(<0.05\) and ns.

3. Possible repetition within a paragraph - page 8 lines 21-24 and page 9 lines 1-6.
Answer: Thank you for your question. The paragraph describe two different logistic regressions to analyse the odds 1) to have PIM 2013 and 2) to have decreases use of PIM 2013. They are similar in their set up, but the models are different in the analyses.

4. Further English language revisions required. For example - The abstract begins with "Potential inappropriate medications" - referred to as "potentially inappropriate medications" later in the manuscript. Some sentences particularly within the introduction are hard to follow (i.e. page 3 lines 12-14).
Answer: Thank you for identifying that we need to approve the introduction. We have revised the introduction and rewritten part to improve the understanding. An English revision of the language has also been done to be improve to the readability.

Elisa Zengarini (Reviewer 2):

1) Despite this first correction, the first part of introduction is not still sufficiently fluent and enlightening. Indeed, there is a repeated sentence (i.e. polypharmacy increases the risk of interactions, lines 10 and 14), some inconsistency (e.g. "One could argue that the severity of the morbidity is
increasing with age and therefore the number of medications increases"). Moreover the definition of potentially inappropriate medications (PIM) is reductive. The issue of drug therapy in older population is wide and multifaceted. The introduction may lead to the knowledge of this issue, the identification of the gaps in the literature, and thus to the hypothesis formulated, in a more consistent way.

Moreover, some expression as "set up as a natural experiment" may be not necessary. 
Answer: Thank you. We have reviewed and improve the introduction.

2) It may be informative to better explain also in the text the limit and advantage of considering two "different" cohort (2011 and 2013) with 78% individuals present in both cohort
Answer: Thank you. We have now added a paragraph in the strength and limitation section about this page 20 row 3 to 6.

We have had someone who is fluent in English to proofread the manuscript.