Reviewer’s report

Title: Prescribing of diabetes medications to people with type 2 diabetes and chronic kidney disease: a national cross-sectional study

Version: 1 Date: 29 Oct 2018

Reviewer: Sandra Vezmar Kovacevic

Reviewer’s report:

Prescribing of diabetes medications to people with type 2 diabetes and chronic kidney disease: a national cross-sectional study is an interesting and well written manuscript. The data are worth publishing since the investigated cohort is large.

However, I have some issues I would like the authors to adress:

1) the use of eGFR and Cockcroft-Gault may not be adequate for obese patients and a large proportion of the included patients are obese. Could you please comment on how the eGFR and CLcr took into account obesity?

2) Dosage of metformin impacted the results of the study in a large extent. However, ADS guidelines seem to be consistent with the Summary of Product Characteristics for metformin. Nevertheless, common practice, as also discussed by authors, is that metformin dose is adjusted when eGFR or CLcr are lower than 45. This should be pointed out more clearly.

3) The most interesting results in my opinion are the differences among prescribing practices in CKD stages. The number of "mistakes" decreased linearly with eGFR and CLcr. This may be because patients advanced CKD are on dialysis and nephrologists are included in their care?? Patients with eGFR and CLcr 45-59 usually have less clinical symptoms of CKD and doctors may be less aware of their condition and need for dose adjustment.

4) I am not sure I understand footnote 3. Does such classification lead to bias if a DLP-4 inhibitor was not consistent with the guidelines but this reflected to biguanides?

5) A technical remark - you use the word finally in two consecutive paragraphs on page 13 and 14

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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

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

No

**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

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organisation that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report
including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal