Reviewer’s report

Title: All-cause mortality of insulin plus dipeptidyl peptidase-4 inhibitors in persons with type 2 diabetes

Version: 1 Date: 07 Sep 2018

Reviewer: Indulekha Karunakaran

Reviewer’s report:

Journal: BMC Endocrine Disorders

Title: All-cause mortality of insulin plus dipeptidyl peptidase-4 inhibitors in persons with type 2 diabetes

The authors have conducted a study to assess all cause mortality from the use of DDP-4 inhibitors in a Taiwanese population. There are some issues with the manuscript that should be clarified.

1. The methodology section should include more details on the methods of measurement. For instance, what criteria was used to diagnose diabetes, hypertension etc.

2. Data on obesity parameters like BMI or waist could be helpful to assesses if these factors have any influence over the mortality from DPP-4 inhibitor users and non-users.

3. The methods section could list the DDP-4 inhibitors used by the study participants.

4. In their previous report, "Cardivascular outcomes of dipeptidyl peptidase-4 inhibitors in patients with type 2 diabetes on insulin therapy" (2018) Diabetes Research and Clinical Practice (140). DOI: https://doi.org/10.1016/j.diabres.2018.04.012~ the authors have used stroke, CAD and Heart failure as major outcomes. This study shows an incidence rates per 1000 PYs of CAD and heart failure of control versus users were 19.85 versus 13.54. The present study has excluded subjects with stroke and heart failure, but not CAD. There were 0 CVD deaths in the subjects using DPP-4 inhibitor users. This should be explained.

5. The present report of the authors used the population-based National Health Insurance Research Database of Taiwan from 2000-2010. Was data from the previous study conducted from 1997-2000 also from National Health Insurance Research Database?

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

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 organization 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 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