**Reviewer’s report**

**Title:** Quality Measure and Weight Loss Assessment in Patients with Type 2 Diabetes Mellitus Treated with Canagliflozin or Dipeptidyl Peptidase-4 Inhibitors

**Version:** 0  **Date:** 24 Jan 2017

**Reviewer:** Nagaaki Tanaka

**Reviewer's report:**

General Comments:
Wysham et al. reported that patients initiated canagliflozin were more likely to reach favorable reduction in HbA1c, systolic blood pressure and weight loss than those who initiated DPP-4 inhibitors. This manuscript indicates that canagliflozin could lead more beneficial effects than DPP-4 inhibitors for patients with type 2 diabetes. However, the following points should be clearly discussed before publishing for BMC Endocrine Disorders.

Specific Comments:

1. This manuscript contains no novel findings but re-assures that canagliflozin has beneficial effect on reduction of HbA1c, systolic BP and weight, which had been confirmed by preceding articles such as Ref. 26, 37, 38 and 40. Indeed the study participants of this study was large-size and collected in real-world setting but complexed with regard to antihyperglycemic agents before and after the index period. The authors should elucidate what the novel findings of this manuscript is.

2. The authors should describe the antihyperglycemic agents prescribed before the index date for the study participants.

3. The observation periods of CANA group seem shorter than those of DPP-4 group. That might indicate withdrawal rate due to adverse event or drop-out rate were higher in CANA group. The authors should mention it.

4. Not every study participants should be targeted to reach below HbA1c 7%. Moreover, generally the lower the HbA1c target was set, the more incidents of hypoglycemia occur. The authors should mention these difficulties in interpreting the findings from the real-world clinical setting.

5. Add the name of the journal of Ref. 37. J Manag Care Spec Pharm?
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 recommend additional statistical review

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

Acceptable

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