Reviewer's report

Title: Sodium Glucose Co-Transport 2 Inhibitors in the Treatment of Type 2 Diabetes Mellitus: A Meta-Analysis of Randomized Double-Blind Controlled Trials

Version: 1 Date: 7 October 2013

Reviewer: Flavia Prodam

Reviewer's report:

The meta-analysis by Berhan A et al summarizes the efficacy and safety of SGLT2 inhibitors in type 2 diabetes by including recently published trials which were excluded by past meta-analysis.

The reading of the paper suggests some comments:

Major compulsory revisions.

1) The Authors analysed data derived by studies with SGLT2 or placebo alone or in combination with other anti-diabetic drugs. The combination therapies could have an impact on the results of the meta-analysis. A forest-plot for subgroups (mono-therapies vs combined/placebo therapies) would be important in the view of the clinical management of the patients.


3) Authors observed a reduction in weight after the treatment with SGLT-2 inhibitors. Moreover, they recorded a significant reduction in both systolic and diastolic blood pressure levels, and an increase in HDL levels. However, the last findings on blood pressure and lipids could be mediated by the weight changes, as debated for other pharmacological classes. These results should be controlled for the dependency by changes in weights. Moreover, this aspect should be discussed.

4) Abstract. Inclusion and exclusion criteria for data extraction should be more described.

5) Methods. Temporal brackets to be eligible for data extraction are lacking.

6) Results. The Authors did not clearly specify how many patients received SGLT2 inhibitors alone, how many placebo alone, how many combinations etc.

Minor essential revisions.

1) Figures. Relative weights of each figure should be introduced in the forest plot.

2) Introduction. The Authors should better clarify the aim of the meta-analysis at the end of introduction by introducing whether they evaluated RCT only vs placebo or vs other therapies (other drugs, combinations etc). PICO(T) should be
better indicated. A table with the PICO(T) should be inserted as supplemental file.

3) Please, insert data about the type of the study chosen in terms of funding (sponsored or not).

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.