Reviewer’s report

Title: Risk of chronic kidney disease in young adults with impaired glucose tolerance/impaired fasting glucose: a retrospective cohort study using electronic primary care records

Version: 0 Date: 09 Oct 2017

Reviewer: Giuseppina Russo

Reviewer’s report:

RE: Risk of chronic kidney disease in young adults with impaired glucose regulation: a retrospective cohort study using electronic primary care records

The aim of this study of investigating the risk for microvascular disease in a peculiar set of subjects at high risk for developing type 2 diabetes and its macrovascular complications is original and merits consideration. This hypothesis is tested on a large database, containing all the needed information. The style of the manuscript is adequate and the conclusions are supported by appropriate statistical analysis.

However, minor revisions would implement the manuscript before publication.

Abstract section:

- subjects with "IGR": better define them as IGT/IFG.

- methods: include n. of subjects (male/female) and duration of observation. THIN register, please specify the place of origin of this dataset.

Conclusions: conclusions are too "technical", sounding as the summary of the results.

It would be better to insert Authors’ interpretation and change the sentence, as in the following example: "Our results show that young IFG/OGT subjects are also at higher risk for developing CKD. This risk is modulated by the degree of baseline renal function and glucose tolerance, being higher in those developing T2DM and/or in those with baseline CKD 3-5."

Introduction section:

Discussion section:

- Table 2: better explain the reasons for the discrepancy between read code and biomedical data in CKD prevalence (26 vs 156).

- Table 3 results should be better discussed in the discussion section.

- In the comparison with other study section, it would be interesting to compare risk factors associated with CKD in subjects with overt T2DM (see for example De Cosmo S et al. Achievement of therapeutic targets in patients with diabetes and chronic kidney disease: Insights from the Associazione Medici Diabetologi Annals initiative(Article) Nephrology Dialysis Transplantation Volume 30, Issue 9, 1 September 2015, Pages 1526-1533) with those available in this dataset of young IGR subjects with CKD.

**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
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