Reviewer’s report

Title: Profile and Factors Associated with Glycaemic Control of Patients with Type 2 Diabetes in Greece: Results from the Diabetes Registry

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Reviewer: Stavros Liatis

Reviewer's report:

This is a survey describing demographic, lifestyle and clinical characteristics of patients with type 2 diabetes who were examined at 5 diabetes outpatient clinics (centers) in Greece during 2017. The study aimed, in addition, to examine factors that may be associated with poor glycemic control.

Comments

The study is described as "prospective". However, although the data have been prospectively collected (during one year), the analysis is purely cross-sectional. Please replace "prospective" by "cross-sectional" throughout the manuscript.

Due to the cross-sectional nature of the analysis the term "predictor" is strongly discouraged. I suggest to use "associations" instead.

The data collection methodology is described as part of a diabetes registry creation. As registries are systems created to organize clinical information related to individual patients and populations, could the authors be more specific about this organization? How was this registry created and how were the participating centres selected?

How was family history of diabetes defined (first degree, first and second degree)?

How were dietary factors and physical activity assessed? Were there validated questionnaires used? Why were only a few parameters of the diet presented and how/why have they been selected?

According to the figures presented in tables 1-4, there are missing data regarding several parameters (eg, educational level is reported in about half of the cases). Although the study population is consisted of 1141 individuals, the analysis related to glycemic control achievement is performed on 686 patients. Apart from the 106 patients excluded due to recent diagnosis of diabetes, other reasons of exclusion should also be explained.

The separation of treatment modalities into "oral" and injectable" is being used since the introduction of GLP-1RA based therapies. However, for the present analysis, insulin treatment should be examined separately as it is usually administered to later stages of the disease and previous research has repeatedly shown that it is associated with poorer glycemic control. Does the association of injectables with better glycemic control remain after this separation?

It is a bit striking that the majority of patients followed-up by specialists are treated with monotherapy. Please comment.

The inverse association between HDL-C and HbA1c is expected due to the rise in TGs in poorly controlled patients, which in turn, are inversely correlated to HDL-C. Hence, low HDL-C in poorly controlled patients is the consequence of hyperglycemia rather than a causative factor. This should be added in the discussion. Further on, higher levels of LDL-C in poorly controlled patients should be examined in association with statin use.

How many patients were included in the multivariable model analysis?

Page 14, lines 5-10: this is part of the results section, not the discussion.

Finally the authors should further discuss the representativeness of the study findings. Please compare to previous studies in the same country.
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.

Unable to assess

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?
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I am able to assess the statistics

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