Reviewer’s report

Title: Lifestyle and Clinical factors associated with elevated C-reactive protein among newly diagnosed Type 2 diabetes mellitus patients: A cross-sectional study from the nationwide DD2 cohort

Version: 2 Date: 21 May 2014

Reviewer: Stavros Liatis

Reviewer’s report:

Major issues

• Please define “recently diagnosed”.

• History of comorbidities has been obtained through discharge records from hospitals. This, however, does not exclude that certain serious medical conditions, not related to a hospital admission, might co-exist. This should be reported as a limitation.

• CRP levels might have been influenced by a recent event related to diagnosis of diabetes. For instance, diabetes might have been diagnosed during hospitalization for an infection, a common cause of CRP elevation. The authors addressed this issue by performing a sensitivity analysis in which individuals with a CRP>10mg/dl were excluded. However, I recommend to perform an additional sensitivity analysis, excluding persons with recent hospitalization. Alternatively, you might examine if the results are affected by adjusting for the patient enrollment site (primary care or hospital). In case the data are available, I also suggest to include recent hospitalization into your multivariable model.

• I understand that blood pressure, smoking, BMI and plasma lipids were derived from previous recordings. Hence, this part of the analysis contains information from different time-points. Since the time period between time-points can vary substantially and lead to erroneous results, I recommend to disregard this part of the analysis (the sub-cohort of 525 patients).

• Although in the text the authors describe that “alcohol intake” was measured and taken into account, in Table 1 (multivariable regression model), only “alcohol abuse” is reported. Actually, only 18 individuals were classified as alcohol abusers. Alcohol intake should be incorporated in the analysis, only if a more precise measure of it is available (eg. low, moderate, high).

• Please discuss in more detail your finding regarding the association between statin treatment and CRP only in women.

• In table 2, please report standardized beta coefficients as well.

• Please rephrase your conclusion. The first sentence is rather vague. Please focus on your specific findings.

Minor comments
Some improvements in spelling and syntax are necessary (e.g., lines 38-39: “elevated CRP was elevated among patients…”, or line 104: “who also were also included…”

Please specify whether hs-CRP was measured.

Lines 145-146: “…overall and stratified by gender.” To my understanding a gender-stratified analysis only is reported.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:

No competing interests to report