Reviewer's report

Title: Management of type 2 diabetes and its prescription drug cost before and during the economic crisis in Greece

Version: 1 Date: 11 February 2014

Reviewer: George Dimitriadis

Reviewer's report:

This paper investigates the differences in the cost of the glucose-lowering, lipid-lowering and antihypertensive treatment in patients with type 2 diabetes visiting 3 outpatient diabetes centres in Greece between 2006 (before the economic crises) and 2012 (during the economic crises) as well as the changes in the percentages of patients that manage to achieve the treatment goals.

The topic is timely and important and the manuscript is comprehensive and well-written.

Comments:

1. The authors highlight, in several parts of the manuscript, the use of the expensive incretin therapies (DPP-4 inhibitors and GLP-1 analogues) as a possible explanation for the increase of the drug prescription cost. Although this may be true, the results of this study showed that even when incretin therapies were excluded, the cost was still increased. Only when both the incretin therapies and the insulin analogues were excluded, the cost decreased to its previous values. As a result, the role of incretin therapies should be toned down.

2. The authors report as principal finding of the study (page 8 first 3 lines) that “there is no deterioration of clinical indices related to cardiovascular risk factors of patients with T2D, after the emergence of a major economic crisis in Greece”. However, it must be added that this is a finding concerning the certain indices of glucose, lipid and blood pressure control and the certain population visiting the 3 diabetes outpatient clinics. It is well known that a large number of unemployed individuals cannot afford the 5 euros charge for visiting a diabetes centre and/or the 10-25% cost of the drug prescription. The effects of the crisis on these individuals remain unknown. In any case, although this study provides some evidence about the effects of the crisis on some clinical indices, the effects of the crisis itself on cardiovascular diseases and costs as regards to the treatment (including hospitalisation) of diabetic complications may need a considerable number of years to become evident. From this point of view the role of the new expensive therapies (incretin therapies and insulin analogues) on the rate of major hypoglycaemic events (needing hospitalisation) and the prevalence of diabetic complications (and its costs) should also be carefully assessed, before making any definite claims about the value of these agents in diabetes treatment. These points must be made clear by the authors since it is a major point which will help the health authorities to design their financial policy.
3. The last sentence of the conclusions (page ) must be rephrased. The introduction of new categories of agents (such as incretin mimetics and insulin analogues) has definitely helped patients to have a better control of their blood glucose and lipid levels and probably avoid future complications (although this may have to be proved) which will dramatically increase the cost of treatment several fold to the cost of the agents themselves.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I have no conflicts of interest.