Reviewer's report

Title: Monitoring mortality among people with diabetes - deaths from neoplasms increased in the insulin treated: a register-based follow-up study

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Reviewer: Enrique Regidor

Reviewer's report:

This paper shows an interesting finding using a monitoring system of diabetes. Nevertheless, from my point of view the paper should improve with the next changes.

Title:

Increased cancer mortality in diabetic people treated with insulin: a register-based follow-up study.

Results:

The two first paragraphs should be eliminated because the rest of the paragraph point out the same idea.

In the table 1 it would be interesting showing the standardized mortality rate in each period and the change percentual between both periods. The comparison of mortality rate in different age groups does not give a clear idea of the result.

Authors mention two important findings: about mortality from cancer and about mortality for cardiovascular disease. However, if we look the results of table 2 and 3, specifically the mortality rate ratios and the confidence intervals, the only significant finding is the excess on mortality from cancer in diabetic women treated with insulin: this excess increased significantly in the second period. However, there is an overlap between the confidence intervals in mortality rate ratios from cancer in diabetic men treated with insulin in the two periods. And the same can be said about the comparison of mortality rate ratios from cardiovascular disease in all cases. Authors show the existence of interaction, but the confidence intervals in mortality rate ratios of mortality rate ratios do not support the interaction. It is logical the lack of interaction in the mortality rate ratios with overlapping of confidence intervals. For example, if we see the mortality rate from cancer by age in diabetic men, the mortality rate increase between 30 and 74 year, but decreased in other group of age.

In summary, I think that results show an increase of mortality rate from cancer in diabetic women treated with insulin. And this finding is what must be mainly commented in the discussion. And if the authors want the increase of mortality rate from cancer in diabetic men aged 30 to 74 year treated with insulin.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests’