Reviewer’s report

Title: The prevalence and ingredient cost of chronic comorbidity in an Irish elderly population with treated type 2 diabetes. A retrospective cross-sectional study using a national pharmacy claims database

Version: 2 Date: 5 September 2012

Reviewer: John Ford

Reviewer’s report:

I would like to congratulate the authors on a well-written and interesting paper.

Major Compulsory Revisions

While the results are interesting they are not unexpected. Therefore to improve the impact, this paper would benefit from a more detailed section in the discussion which outlines the importance of these results and how they might be used by decision makers, economists, etc.

The authors have used bootstrapping to compare means. Mention of its potential weakness is needed in the discussion, especially in regards to the narrow confidence intervals.

Minor Essential Revisions

The term “treated T2DM” (more accurately “medication treated T2DM”) should be used throughout to make it clear to readers that individuals with diet controlled DM are not included.

Methods

Appendix 1 was not attached and therefore I was unable to comment on this.

Results

Sentence in the results “The T2DM group was nearly three times more likely to have >/= 5 comorbid conditiond compared with the non T2DM group”. Why was this cut off chosen? Was it pre-specified?

One of the confidence intervals does not make sense in the discussion. Sentence beginning “The mean annual ingredient cost of comorbidity in the study population with T2DM was significantly higher (€1238.67 95%CI €1238.20 - €1238.14…” In addition, the word “significantly” should be removed as this may be interpreted as statistical significance.

There needs to be consistency between the terminology of “sex” and “gender”. Was gender or sex reported in the claims database?

Discussion
Sentence in the discussion beginning “It may, therefore, be beneficial for health professionals to actively manage depression in their patients with diabetes….” Whilst I understand the sentiment behind this statement, it needs re-worded to avoid the implication that health professionals currently passively manage depression.

Conclusion
First sentence of the conclusion needs reworded. The word “burden” needs removed or expanded upon. It is true to say that patients have a greater prevalence of comorbidity, but burden implies that each comorbidity has an equal, and cumulative, burden on a patient’s life. This may not be true. For example, the burden of comorbidity from hyperlipideama will be less than heart failure. It is true that there is a higher burden of medication costs to the healthcare services.

Discretionary Revisions
None

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

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

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