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: 23 November 2012

Reviewer: Vicky Head

Reviewer’s report:

Overall, this is a well-structured and well-written paper with a clearly defined research question, however the findings are not particularly revelatory.

Major Essential revisions

1. p5: More information is required on the coverage of the HSE-PCRS database and implications for the generalisability of the findings. In particular, is there different eligibility/coverage for those aged 65-69 compared to >70s and, if so, how might this affect the findings? Are those covered by GMS likely to have systematically better/worse health than those not covered? Are the findings for >70s likely to be more robust and generalisable than those for 65-69 year olds? This point carries through to the first paragraph of the results (p8) and to the final paragraph of the discussion (p13/14), where more reflection is required.

Minor Essential revisions

2. p8: Results, 2nd paragraph, and links back to Data Analysis – it is not clear why/how a chi-square test was used to test for a difference between two medians. The text of the first sentence of the paragraph doesn’t intuitively match the analysis cited (#2, df=10). If data has been used for this that is not shown in the tables, it would be helpful to see it, and, for clarity, more detail on the analyses used may be necessary.

3. p9: final paragraph – the first confidence interval given does not contain the point estimate (presumably this is a typo – should read €1238.20 - €1239.14?). This error is repeated in the abstract.

4. Overall: while the writing is broadly acceptable, there are numerous errors and the manuscript needs thorough proofreading.

Discretionary revisions

5. p2: abstract – first line of methods might better read “The Irish Health Service Executive Primary Care Reimbursement Service prescription pharmacy database, which includes all prescribing to individuals covered by the General Medical Scheme, was used to identify the study population”. The current text implies those eligible for GMS were identified from a broader database.
6. p3: Background – projected prevalence increase from 2.8% to 4.8% is not a
doubling of prevalence, as currently stated.

7. p8: Results, paragraph 2 – the statement “The T2DM group was nearly three
times more likely to have #5 comorbid conditions…” could more correctly be
stated as “The odds of having #5 comorbid conditions were three times higher in
the T2DM group…."

**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.