Reviewer's report

Title: The increasing burden and complexity of multimorbidity

Version: 2  Date: 6 March 2015

Reviewer: Stewart Mercer

Reviewer's report:

This is a large descriptive study of multimorbidity prevalence in Ontario, Canada, drawn from routine administrative data. It confirms what we know about multimorbidity but has the additional advantage of being over two time points, and thus can show that there has been quite a big increase in multimorbidity of about 40% over relatively few years. As such I think it makes a publishable contribution to the literature. I do not have any major revisions but some minor and discretionart ones below.

The question set by the authors is clearly defined. The methods seem appropriate given the type of study, but I did get confused as to why the authors had to use so many different datasets and data sources. As a minor revision I would like this to be explained more clearly. Specifically, what was missing from the key databases that required use of data from others data sources? Secondly, I was a bit confused about the provincial health insurance claims database; it is not clear whether this is for all citizens, or just for those over 65 years or on social assistance? Or does the statement about these groups relate to prescribing data? Again, minor revision required.

The data appear to be sound as far as one can tell but there should perhaos be a bit more detail on this (discretionary revision).

The results are clearly presented though I did wonder why there was no mention of gender or socioeconomic status (see below under discussion).

The discussion and conclusions are well balanced and adequately supported by the data. Limitations of the work are stated but as a minor revision I would like to see some mention of why gender and socioeconomic status was not included in the study. Many studies now show that the prevalence and burden of multimorbidity is socially patterned (eg Barnett et al 2012) and that people of lower SES are affected most.

I also feel that the discussion about the choice of conditions and which one and how any should be included in such studies should cite the systematic review by Diederichs et al, which recommedns which conditions should be included in international studies such as this one. (minor revision)

In terms of multimorbidity in younger people, the paper by Mclean et al in British Journal of General Practice in 2014 seems relevant. (discretionary revision)

Finally, an important finding in this study was the 40% increase in prevalence of mutimorbidity across te two time points, in all ages, and the authors should discuss why they think this may have occurred (minor revision)
**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 declare I have no competing interests