Reviewer's report

Title: Co- and multimorbidity patterns in primary care based on episodes of care: results from the German CONTENT project

Version: 1 Date: 1 June 2007

Reviewer: Marjan van den Akker

Reviewer's report:

General

Thank you for giving me the opportunity to review the manuscript “Co- and multimorbidity patterns in primary care based on episodes of care: results from the German CONTENT project”. Co- and multimorbidity are subjects with high societal relevance (and even expected to increase further). To my knowledge this is the first serious German database and manuscript on this theme. Please find my comments and suggestions below:

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

There is no research question stated in the manuscript.

The first part of the methods section lacks relevance in my view, particularly the part on data export and electronic data media. What I miss here is information regarding the confidentiality and anonymity of the data and approval of an ethical committee.

It is not clear to me if and how quality of the registered data is assured. Could the authors give some information about that? This becomes even more relevant when reading in the discussion that German routine data is unlikely to yield a realistic and differentiated picture of morbidity and health care utilization. More in general: please provide some information of the role the GP has in the German system.

Both Reason for Encounter and Diagnoses were registered; it is not clear which one is used for the current analyses.

More in general regarding the Methods: the description of the analysis is too limited. What outcome measure was used? Which are explanatory variables? Are there other co-variables? In the results correlations are reported; please also describe this in your Methods.

Regarding the results: I do not understand what the authors do when they “…considered the maximum number of parallelly active episodes of care as well as the corresponding number of different codes…”.

The authors define multimorbidity, not comorbidity. Nevertheless, they also report on comorbidity. Please give a definition.

Almost at the end of the discussion authors present a totally new model with a matching formula. I don’t see how this part of the discussion is related to the manuscript.

In their conclusion the authors state that they have obtained valid multimorbidity patterns and corresponding health care utilization issues. Given all the above comments, I have to conclude that the authors have not yet been able to convince me of the validity of their database.

The abstract should be revised in line with the above comments.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Where participating practices spread over the whole of Germany, or concentrated in a region?
I’m not a native English speaker myself, but I believe parallely is not a proper word; please consider using ‘concurrent’ instead.

Discretionary Revisions (which the author can choose to ignore)

The figures are a complete overlap of tables 1 and 2, and as such, they do not provide any new information.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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