Reviewer’s report

Title: Disease identification based on ambulatory drugs dispensation in comparison to ICD-10 diagnoses

Version: 2 Date: 26 April 2013

Reviewer: Niklas Schmedt

Reviewer’s report:

The authors re-submitted their initial manuscript on disease identification based on ambulatory drugs, which is an important topic in healthcare related research using secondary data. The revised manuscript addresses the main critical issues raised in the first peer-review. However, there are some minor essential revisions that appear necessary.

Discretionary Revisions

Given the complexity of this work and the information provided to explain the procedure of the establishment of this classification system and its validity, I was wondering if separating the work in two manuscripts (e.g. 1. Establishment and possible application fields of the classification system and 2. Validity of this system) would be more reasonable.

Minor essential revisions

1. Is the question posed by the authors well defined?
   Yes.

2. Are the methods appropriate and well described?
   The methods section is much more comprehensible compared to the first version. However, there are some minor points that might be confusing:
   a) How many people does the source population contain covered by the four insurers (hospitalized and not hospitalized)?
   b) How is it possible to obtain the percentage self dispensed medication if they are not documented by electronic bills?

3. Are the data sound?

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

Still, there are parts in the methods section containing discussion on limitations and also conclusions (e.g. page 7, 1st paragraph or page 9, 1st paragraph). In addition, large parts of the very long results section appear as a discussion on the usefulness of the classification for different application fields and a detailed
discussion on specific entities (e.g. page 11 second, third paragraph). This circumstance makes the section hard to read and the major results are difficult extract from all the detailed information mentioned.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

6. Are limitations of the work clearly stated?

Although, the authors mention it in the text, they might state more clearly, that the gold standard (hospital diagnoses) itself is questionable and strongly depends on coding and reimbursement practices. Therefore, this results can only indirectly be conferred to other countries.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

8. Do the title and abstract accurately convey what has been found?

Yes.

9. Is the writing acceptable?

See point 4.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.