Reviewer’s report

Title: Impact of nursing home admission on health care use and disease status of dependent older people one year before and one year after skilled nursing home admission based on 2012-2013 SNIIRAM data

Version: 0 Date: 15 Mar 2017

Reviewer: Young-Taek Park

Reviewer’s report:

To the Author;

This manuscript is a study comparing disease and health status of elderly dependents one year before and one year after nursing home admission using CNAMTS's claim dataset. The manuscript provides us with valuable information on older peoples' disease and health status. Although it is very difficult to get healthcare utilization data from the national health insurance program such as CNAMTS, the author got them and produced various meaningful new findings. I think those peoples who are studying healthcare utilization of nursing home elderly or impact of nursing home admission on health status are very interested in these study results. I have no objection to publish the study results into the BMC Health Services Research. However, there are still some parts to be improved as a good academic research paper. My comments are for the improvement of this manuscript quality, but not other than that. Here are my comments as follows;

1. Major Compulsory Revisions

1-1. This is a critical issue. There is not any statistical test, which seems to degrade the value of the manuscript. Most of current analyses are based on descriptive analysis. Please conduct statistical tests comparing disease status, health care use, hospitalization, etc., between two periods. Regarding the expression of the results, I would like to recommend you to read the following article and get some ideas from it and rewrite or revise the current manuscript with similar way.


There are several indices such as hospitalization, hospital LOS, hospital mortality, etc, which you may be interested in as important indices. There is also an important independent variable: internal and external. I think that you could use this concept as before and after term. If your manuscript could change to this form, then the current manuscript would be concise one and the common readers could easily understand the results. I think that the current study results of the manuscript looks like some statistics.
The reason I suggested this way is that: in the manuscript, you frequently said that some figures are decreasing or increasing such as "4% before to 7% after" or "from 4% to 6%" or "from 3% to 1%" (see p.10). Strictly speaking, there are increasing or decreasing trends. However, they are not in the statistical point of view (there is no change). Statistically speaking, we need some test statistics on whether there are really different or not.

1-2. If you could not reflect the 1-1 above, please insert the p-value or specific note such as * (when p<0.05) or ** (when p<0.01) of the test statistics comparing indices between before and after in Table 1, 2, 3, 4.

2. Minor Essential Revisions

2-1. I am personally wondering why the author compare diseases and health status one year before and one year after nursing home admission. I think that you want to know the impact of nursing home admission on health status, etc. Then the title and study direction should focus on its impact. Thus, I don't think that the current title "comparison of health care use and health status……SNIIRAM data" is a good one. The title of the manuscript may need to be changed such as "Impact of nursing home admission on health care use and health status". But my comment is totally dependent on your decision.

2-2. Please see "population" section of the research method and "populations and characteristics" of the results. Two parts of the manuscript seem to be almost same except several wording. I think that one of two sections is unnecessary. If you want to keep both, then describe them differently or put a Table on the characteristic of study subjects in the latter section.

2-3. If you could add some Figure on selection process or diagram to the study subjects in the "population" section of the research method, then the readers could be easily understand the study subjects. For an example, that is something like (please draw more delicately);

2-4. you said that "their characteristics in terms of age, sex, and identified diseases did not differ according to these various subgroups" (see p.7). Did you do any statistical tests or visual inspection?

2-5. I think you need some descriptive Table on the study subjects on p.7. Current explanation is not enough.

2-6. I think that the current title of ALL THE TABLES are too long. Please make it shorter.

3. Discretionary Revisions

3-2. In abstract, you said that the aim of this study was to compare "health status"….. But there is not any result on health status, but disease status (see Table 1). I think you are comparing disease status of the nursing home elderly. So, change the term, "health status" to "disease status" in all the manuscript.

3-3. I think that if you put the type of study design on your manuscript, especially in method section, then it makes your manuscript to be seen as more academic one.

These are my comments. They are only based on my best knowledge. But there might be my misunderstanding on the study results and some strong expression. I hope for the authors' understanding and really wish this manuscript to be improved and publishable one.

Thank you!

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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