Reviewer's report

Title: Regional variation in avoidable hospitalizations in Switzerland and its relationship to health care supply and rurality; Small area analyses

Version: 1  Date: 16 September 2013

Reviewer: Roberto Forero

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Major Compulsory Revisions

1. Is the question posed by the authors well defined?
The major issue I have with this manuscript is the conditional definition of avoidable hospitalizations (AH): “AH are those that could have been prevented by better ambulatory care”. In that context, the question should be what is the proportion of conditions that received good ambulatory care which ones were admitted to hospital?

As indicated by Caminal et al, proper ambulatory care should address one or more of the following conditions: 1) Is the condition preventable?; 2) Has been diagnosed and treated early?; 3) Is the condition under good control or management?; and 4) is hospitalization necessary when the condition occurs?

My concern is that by using only principal diagnosis codes, the authors assume that the selected conditions are by definition not been treated properly if they were admitted, which does not take into consideration the criteria described in the literature.

2. Are the methods appropriate and well described?
A major issue with this study is that this is a retrospective study where one of the outcome variables (admission) is subject to major confounders.

3. Are the data sound?
In this context this data is subject to major confounders which have not been addressed, therefore is not sound at this stage.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
No information is given about ambulatory care given, and there is alos no information about the number of hospitalization per patient and re-admissions.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
It can be improved

6. Are limitations of the work clearly stated?
This need to be revised

7. Do the authors clearly acknowledge any work upon which they are building,
both published and unpublished? No
8. Do the title and abstract accurately convey what has been found? No
9. Is the writing acceptable? Yes
Specific comments:
• Page 3, Background, 1st paragraph, lines 5-9: The statement needs to be supported by the respective references.
• Page 5, second paragraph, line 2: How many hospitalization per patient?
• Page 6, last paragraph: How do you decide what is a AH admittance versus a non-AH admittance?

**Level of interest:** An article whose findings are important to those with closely related research interests

**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'