Reviewer's report

Title: Prevalence of and Factors Associated with Medication Persistence in Patients Following Stroke: A Cohort Study

Version: 1 Date: 11 February 2008

Reviewer: Sylvie Perreault

Reviewer's report:

Comments to the paper entitled: Prevalence of factors associated with medication persistence in patients following stroke: A cohort study

1. Is the question posed by the authors well defined? The introduction needs to be improved

2. Are the methods appropriate and well described?

2.1 The methods section needs to be presented as follow:

Source of data: This is not that clear what types of information that they have in the SOS, such demographic characteristics, clinical characteristic of patients, etc. Do you have access to any medical consultation in the community? Do you have access to any clinical data on blood pressure? Do you have access to any adverse drug reactions that may conduct to drug cessation. All these informations should be stated in the section of data source. They should provide more information at that section. Any data on the validity of coding for diseases in the SOS databases?

Study population: how did you defined ischemic stroke (ICD-9 code or symptoms, or which classification, etc). Inclusion and exclusion criteria.

Cohort definition: How the patient were selected, etc? The patients are included in the cohort, and they certainly have a minimal of follow-up and only a maximal follow-up. Etc.

Study outcome: Define more clearly how the outcome was defined. Questionnaire, When, etc? Validated or published questionnaire?

Determinants: How do you define all these variables and when: example: diabetes defined with IDC-9 code or only treated with pharmacological agents, and that in the year prior to cohort entry.

Statistical analysis: For which variables the adjustment was maded?

Ethical issue:

2.2 The paper need to improve the methods section particularly in a more clear definition of outcome and for all variables investigated. We need to know how all
variables were defined.

3. Are the data sound?
I am wondering about evaluating the determinants of persistence, giving that the number of non persistent is small.
Again, this lead to very wide confidence intervals. Are they relevant estimates of prediction?

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes but the paper needs major revision.
The Tables need to be presented in more clear presentation.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
Many limitations need to be added to the discussion.

6. Are limitations of the work clearly stated?
Others limitations need to be discussed. Also, in the discussion you list reasons why your study has limited value. You need to explain why these limitations do not diminish the value of your findings. The current study had other limitations and they should discuss the impact of these limitations on the results. First, any data for blood pressure, a well-known CAD risk factors. Second, any data for lifestyle for lack of exercise, obesity, and poor diet are important CAD risk factors. Third, some subjects may have had other CVD. Four, the databases included data for insured drugs only or all drugs. Finally, another possible misclassification error is related to drug exposure. It is assessed on the basis of the pharmaceutical files completed; but we cannot know with absolute certainly if patients took their drugs. However, do the patients pay a portion of the drug costs, so they may be less unlikely to not take their medication, lowering the chances of bias.

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

8. Do the title and abstract accurately convey what has been found?
The title need to be reviewed. The term "prevalence" is not appropriated in this cohort study of 420 patients.

9. Is the writing acceptable?
The writing is acceptable

**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:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

no conflict