Reviewer's report

Title: The time course of subsequent hospitalizations and associated costs in survivors of an ischemic stroke in Canada

Version: 2 Date: 24 March 2006

Reviewer: Robert Kaplan

Reviewer's report:

General

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

Abstract

1. Specify that only hospitalized strokes were included

2. "Lengths of stay ranged..." It is unclear what is meant by "high" and "low" figures in this statement.

3. "Close-fitting Weibull functions..." This statement appears to describe Methods rather than Results.

4. "Though these rates drop after one year..." The data supporting this conclusion should be described in Results section of Abstract.

Methods

5. Page 4: This study appears to have been limited to hospitalized strokes. This needs to be clarified in the description of subject identification and throughout the manuscript.

6. Page 4: ICD9 code 436 ("acute, ill-defined") was by far the most frequent code among stroke patients, which differs from prior studies cited on ICD9 codes for stroke. This should be noted, as code 436 is somewhat less accurate than other commonly-used ICD9 codes for stroke (eg, 434). Use of 362.3 (retinal vascular occlusion) to identify stroke is questionable, albeit this code was relatively uncommon.

7. Page 5: In the description of the longitudinal models (Weibull and Cox PH), it should be stated whether and how death was used as a censoring variable.

Results:

8. Page 6: While the mean age was 71 years old, it is misleading to state that this patient population was "elderly" as the lower age limit was 21.

9. Page 6-7: The description of the approach to estimating "Total Rate (TR)" parameter belongs in Methods, not Results.
10. How did the hospitalization rates for subsequent non-cerebrovascular CVD, such as coronary
disease/acute MI, compare with the rates in Table 5 for stroke and TIA?

11. No information is presented on use of CV preventive medications (antihypertensives, coumadin,
aspirin, lipid-lowering medications, etc). Except perhaps for aspirin, this information should be
available from the prescription files which are described on page 4. In terms of generalizing these
results to other populations, it would be critical to know how widely effective therapies were applied
in this population.

Discussion
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12. Page 8-9: The authors cite several prior studies describing the clinical course of stroke patients
(refs 20-22), but they should also discuss the results of the present investigation in the context of
these prior studies. Do the results presented here lead to substantially different conclusions, and if
so why?

13. Page 10: The observation that hospitalization rates after stroke were higher than those in a prior
study of MI is interesting. What is the citation?

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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)

None

Discretionary Revisions (which the author can choose to ignore)

None

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: No

Declaration of competing interests:

I have no competing interests.