Reviewer's report

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

Version: 2 Date: 20 March 2006

Reviewer: Charles Wolfe

Reviewer's report:

General
The paper provides a useful model for analysing stroke events from a routine data source to estimate the health economic resource use for stroke.

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

1. Clarification in abstract, methods and discussion about what the definitions are for stroke and cardiovascular disease. It is not clear whether the model looks at first or any strokes, and whether TIA are included for those individuals who are then followed up. If they are the analyses should really be broken down into the 3 elements. If it is all strokes, be they first or subsequent a discussion of this weakness has to be introduced into the discussion as they have different natural histories and consequently resource use patterns. TIAS should be excluded or analysed separately.

2. The abstract needs to be rewritten in light of the comments elsewhere in this review. For example in line 2 of the results they mention strokes and TIA-Is this all strokes and if TIAs included these need to be analysed separately if at all-the paper is about stroke. Line 4 what is the definition of cardiovascular? The final line of the conclusion is aspirational and not relevant to this analysis-ie to use the model to look at economic efficiencies.

3. The methods section requires close attention to definitions as it is unclear to the reader what the actual variables mean.

4. P6 para 2 last line-TIAs in hospital for 9 days are unlikely to be TIAs-especially in the mid 90s. Is this a coding error?

5. P7. Predictors. Can the authors describe where the data are derived-past medical history? and what are definitions/validity? The authors refer in text to bleeding and haemorrhage-what is this? is it related to warfarin treatment?

6. Table 1 does not really provide much insight for the paper and could be removed

7. Table 2 the ICD codes need defining for the general reader. What is the relevance of describing risk factor %s for this paper. Can this be removed?

Tables 8-10 are rather difficult to interpret-can labels at the top be clearer.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions
Level of interest: An article of limited interest
Quality of written English: Acceptable
Statistical review: No