Reviewer's report

Title: Stroke prevalence in Spanish elderly from screening surveys

Version: 2 Date: 4 May 2006

Reviewer: Dallas W. Anderson

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General
Stroke is a major public health problem in Spain. Knowledge of prevalence patterns for stroke is important for allocating resources within the Spanish national health system and for beginning to understand the causes of that condition in the Spanish elderly. For that reason, the authors decided to present an overview of prevalence surveys of stroke that were conducted in Spain in recent years, and to compare results of these surveys with results from similar studies conducted in other areas of Western Europe. Previous overviews of Spanish or European prevalence surveys of stroke, written by the present authors or others, have not provided the explicit comparisons found in this review. The authors generally followed the recommendations of the MOOSE Group for meta-analyses of observational studies in epidemiology.

The paper contains important data which suggested that the level of stroke in Spain, compared with other Western European communities, is intermediate. Stroke in the elderly is generally age-related, and the authors found a familiar pattern: increasing prevalence with advancing age. They also found that the lowest prevalence of stroke was in a rural area.

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Major Compulsory Revisions (that the author must respond to before a decision on

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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)

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Discretionary Revisions (which the author can choose to ignore)

In Spain, the most credible surveys of stroke seem to be door-to-door investigations involving screening. What other types of community-based studies were available (e.g., hospital-based surveillance efforts)? Why were they less credible?

Why were different time frames used for the Spanish and non-Spanish studies?

Why was the Kungsholmen Study considered? That study had no screening phase (see Table 1).

No critical appraisals were provided of the studies that were included. Thus, results of unpublished studies are especially problematic (poor quality?). Data on participation rates of the various studies would be helpful. What about diagnostic criteria? One could at least comment on whether they were similar between studies. Why were stroke types not available (occlusive versus hemorrhagic)? Were type-specific data not collected at all? Or do they simply lack credibility?

Comparisons were made between urban, urban mixed, suburban, and rural areas. Are these terms defined in the paper? Could the lower prevalence in the rural area be an artifact? For example, how typical would it be for elderly stroke survivors in the rural area to move to an urban or suburban area to live with adult children or to take up residence in a chronic-care institution?

More could be said about the panel of experts that designed the data collection questionnaire. For example, were any or all of them authors of the paper?

More could be said about the European standard population. At least give a reference, if not a definition.

What would be the nature of the publication bias that is potentially resolved by including unpublished
What next?: Accept after discretionary 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 declare that I have no competing interests.