Reviewer's report

Title: Hospitalisations during the last year of life of nursing home residents: A retrospective cohort study from Germany

Version: 2 Date: 18 January 2006

Reviewer: Steven Zweig

Reviewer's report:

General

This is a report on residents admitted to a set of regional nursing homes during one year who died at some point during that year or the next. The data examined is that of 0-365 days prior to the death of those individuals.

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

This is a funny cohort, in fact not a cohort at all. Cohorts are defined at the beginning of a study period and these persons were included on the basis of dying. So in a sense this is a case series of people who died, and retrospective look at their health care experience. Accordingly, this study should not be described as a "longitudinal study regarding hospitalisation rates in a population-based sample of NH residents." (p.10). The authors have determined these rates only for residents who died (and there are problems with the rates).

The difference in design actually creates a few problems: the authors cannot compare nursing home admission rates to the those in the US where most of the studies are incidence studies - i.e. of all of those people in the nursing home, what is the hospitalization rate. Furthermore, the authors cannot count percent of time in the hospital for the vast majority of subjects for whom they have less than one year's worth of data. For example on pages 8 and 10, they refer to 7.8% time in hospital during their last year, but they also report on p 8 that for 653 persons they only have a mean of 121 observation days. There is no way to determine days in hospital for the time prior to that initial nursing home admission, so no way to calculate a percent in hospital during their last year.

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

In the Methods the population of new admissions is 1926 (why were only new admissions included), but it is not clear what the 80% refers to (p 5). Do the authors mean they had data on 80% of these people, yielding 792 deaths among .8 X 1926?

I am concerned about using data from the physical exam that was performed at various different times of the study period.

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 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.