Reviewer's report

Title: Epidemiological evidence of higher susceptibility to vCJD in the young

Version: 3 Date: 7 July 2004

Reviewer: Simon Cousens

Reviewer's report:

General

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

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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)

I am unfamiliar with the approach that the authors have used – a Poisson “birth process” which is then “filtered” by a function comprising survival, infection, incubation. What are the assumptions that are made using this approach? Presumably a constant birth rate in the population? Others? The authors should provide a statement of any such assumptions.

Confidence intervals. I have two comments here. First, the authors state that they showed in reference number 3 that confidence intervals obtained by the multivariate normal approach approximated to those obtained using the profile likelihood approach. I could not find an explicit statement to this effect in the paper they reference. Second, the method they describe sounds as though it will yield a 95% confidence region for the k parameters estimated, not 95% confidence intervals for individual parameters. Some clarification of these issues is required.

Near the beginning of the methods section the authors use lambda(a,t) to signify the instantaneous risk of infection. But then appear to switch to pi(a,t). Consistency is required.

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Discretionary Revisions (which the author can choose to ignore)

Some explanation of the choice of 0.596 in the formula for g(t) would be helpful.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No
Declaration of competing interests:

None