Reviewer's report

Title: Relationship between tooth loss and mortality in 80-year-old Japanese community-dwelling subjects

Version: 4 Date: 29 March 2010

Reviewer: Joanna Stewart

Reviewer's report:

Major

Although table 1 and 2 have been redone with all categories included and the chi square statistic corrected the percentages presented have still not been changed to be the percentage of the particular group that died. (as was requested last review). This needs to be done. As survival or not is the outcome this is the statistic of interest. It is much easier to see differences in survival in people with different characteristics if the percentages are for the percentage who survived (or died).

The interactions have still not been included in the logistic regression to justify or otherwise splitting the analysis on smoking by gender status. This makes it impossible to comment on meaningfulness of any observed differences. If the interactions do not indicate a possible difference the subset analyses should not be reported.

The added sentences in the first paragraph of the discussion have been changed and now does acknowledge the issue of power but it is incorrect to state there is a ‘significant’ difference ...... in any results in these 2 analyses which, as is obviously expected given the deaths at 4 years are just a subset of those at 5.5 years, have very similar estimates. The discussion should be pointing this out, not trying to give possible explanations for so called differences.

Minor

The wrong sentence was changed in the 1st paragraph of the results – see comment on the percentages in question in previous review.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests