Reviewer's report

Title: Disease-specific survival for limited-stage small-cell lung cancer affected by statistical method of assessment

Version: 6 Date: 8 August 2006

Reviewer: Esa Läärä

Reviewer's report:

General

The presentation of methods and results has substantially improved from the previous version. However, some problems remain in the manuscript.

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

1. The authors failed to respond to my query concerning the existence of a cure-rate component in the log-normal regression model (or "log-normal survival analysis" as the authors call it). If it is not contained in it, some justification of its absence would be desirable given its presence in the Boag model for the overall survival curve. -- In addition, the estimation principle and method used in fitting the log-normal models is not yet specified in the "Statistical Analyses" section. Mentioning only the Excel programme or the BMDP procedure is not a sufficient documentation. These details are obviously not needed for the much better known proportional hazards (PH or "Cox model") model, although mentioning the PHREG procedure of SAS would not take too much space.

2. Figure 1 is now more informative of the differences in the fitted survival curves between the PH and the log-normal model. However, it occurred to me not until now, that a simple graphical goodness-of-fit comparison of the fitted models could be executed by plotting in the same picture the simple Kaplan-Meier curves describing the observed survival proportions in the four clinical groups. It would be very interesting to see, whether the fitted log-normal curves would be closer to the KM curves than the fitted PH curves.

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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)

1. Abstract: The P-values associated with the selection of the prognostic factors are not adding any useful information and could be removed.

2. Table 1: Some entries are clearly misprinted, e.g. numbers of patients in total and by sex.

3. Table 2: The table caption is incomplete. I would write, "Estimated disease-specific survival probabilities (in per cent, with 95% confidence intervals, CI) at 1, 3, and 5 years by different methods" After this the repeated percent symbols '%' from the body of the table can be removed as unnecessary junk.

4. Table 3: See the previous item.

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Discretionary Revisions (which the author can choose to ignore)

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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

Declaration of competing interests:

I declare that I have no competing interests.