Reviewer’s report

Title: Family history of cancer on survival of patients with gastrointestinal cancer in northern Iran, using frailty models

Version: 2 Date: 12 April 2011

Reviewer: Tron Anders Moger

Reviewer’s report:

I think that the arguments for using parametric models are clearer now, as it is established that the assumption of proportional hazards is violated in the Cox model. This information was missing in the original manuscript. I do not see any obvious methodological errors in the revised manuscript. I have a couple of suggestions, though:

1. Table III is very large. You have established that the log-logistic model with gamma frailty provides the best fit to the data. Why not present the regression results for this model only in table III, instead of still using space on the exponential, Weibull and lognormal models?

2. The legend for figures I and II has been improved in the revised manuscript. However, the legend for Figure II is now very long, and some of it might be moved to the text e.g. in the second paragraph on p. 7. Also, I expect that all figures in Figure II show the residual for models with gamma frailty? This is not clear from the figure legend.

Some sentences still need re-phrasing. For example, I do not understand what the authors are trying to say in the following two sentences (p. 9, last paragraph):

These models are relatively new in survival and widely studied in the 1990’s and now the subject of many investigations has been allocated. Technical problems in estimating the parameters have been caused the Cox model to be used less.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:

I declare that I have no competing interests.