Reviewer's report

Title: Imputation of missing values of tumour stage in population-based cancer registration: a simulation study

Version: 3 Date: 18 May 2011

Reviewer: Tulay Koru-Sengul

Reviewer's report:

The authors responded well to the comments that were raised by the reviewers. Hence, they made substantial changes to the first submission. However, the current revised manuscript’s message is changed substantially from the first revision since the authors decided to perform “a simulation study” with very small number of simulated datasets without much detail given about the design of the simulation study. I have raised this issue as a comment to the authors and was not expecting a proper statistical simulation study's results within a short period of re-submission. Properly designing and conducting any statistical simulation study need quite a bit time. I appreciate that the authors conducted a simulation study but I am not convinced that it was the proper one. If the authors would like to perform an appropriate statistical simulation study, they might consider increasing the number of simulated dataset, working on different scenarios in the design, reporting the results of the simulation study properly, etc. If they would prefer not to conduct a proper simulation study, then they can still consider publishing this study as “a case study” by stating a limitation of not knowing the “best” method among the ones presented here. They have clearly stated that there is no literature on comparing these methods via statistical simulation studies. I strongly believe that a manuscript comparing these methods via proper statistical simulation studies should be a separate manuscript by the same authors or others. I would like to recommend to the authors the following article appeared in Statistics in Medicine “Andrea Burton, Douglas G. Altman, Patrick Royston, Roger L. Holder; “The Design of Simulation Studies in Medical Statistics”, Statistics in Medicine, 2006; 25:4279–4292”.

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

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.