Reviewer's report

Title: Delivery of Health Care at the End of Life in Cancer Patients of four Swiss Cantons a retrospective database study (SAKK 89/09)

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Reviewer: Massimo Costantini

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Delivery of Health Care at the End of Life in Cancer Patients of four Swiss Cantons a retrospective database study (SAKK 89/09).

This is an interesting article exploring an important topic, the use of cancer related therapies and hospitalisation in the last three months of life of cancer patients. The two main aims of the study are clearly reported at the end of the introduction section:

- describing delivery of health care during the last 30 days before death in terms of ...
- assessing the magnitude and significance of effects of demographic, geographic and insurance coverage-related factors on the above named indicators.

There are some points of the article that should be taken into consideration for improving the quality of the paper and, as much as important, for making the reported results more comprehensible for a reader not skilled in statistics.

Major Compulsory Revisions

The population of interest is the population of deceased for cancer between 2006 and 2008 in the participating Swiss cantons. The actual sample derives from a complex system of merging from different databases. The degree the study population reflects the “true population” is not clearly reported in the methods section, and in the results section. This point should be commented in the Discussion.

The analyses were performed on different populations as some information were not available. This point should be clarified in the results section.

The first series of analyses includes: the description of the overall study sample (N=3809; table 1) and the description of the hospitalised study sample with clinical information (N=2494; table 2). The overall hospitalised study sample is reported in Figure 1 (N=2608). According to that, table 1 is not useful, as all the analyses have been performed on the smaller study sample (1201 not hospitalised + 2494 hospitalised with clinical information). I would suggest:

- a table reporting for each independent variable: total sample (N.); number and proportion (with 95% CI) of each of the dependent variables (hospitalisation, CT,
RT, CT+RT). In my opinion the cantons should be reported as independent variables. This table should include age, although the results are also reported in figure 2.

- a second table where the relationship between the independent variables (all those reported in the previous table) and the dependent variables (the four previously reported) are analysed in terms of univariate and multivariate association. The OR was correctly used by the authors. In the table, for each variable, the referent strata should be clearly identified.

Minor Essential Revisions

In Figure 1 should be reported the number of patients used in the analyses (patients with clinical information). The flow-chart is correct, but this number is missing.

I do not find informative (and for a lesser extent a possible source of misunderstanding) reporting the means in figure 2.

The results of the interaction analyses are interesting. Was there a statistic plan for analysing the interactions? If so, this point should be included in the methods section.

The percentage of hospitalisation is rather high. I’m not sure that the availability of PC wards might explain these figures. Do you have any statistics about the use of these palliative care wards in the four cantons? Do you have any information about place of death of the patients from this sample?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests