

Peer Review Report

Review Report on The Role of Cancer in the Risk of Cardiovascular and All-cause Mortality: A Nationwide

Original Article, Int J Public Health

Reviewer: Reviewer 3

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EVALUATION

Q 1 Please summarize the main findings of the study.

Authors identified an excess risk of CVD mortality in cancer patients respect to subjects without cancer, using data from a national survey representative of the US

Q 2 Please highlight the limitations and strengths.

Strengths:

- Important topic
- Important data

Limitation

- Strong residual confounding
- Missinf analyses
- Study on CVD mortality and not on CVD incidence

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

The manuscript is interesting and the topic is really important.

However, two major pints should be addressed:

1. Subjects with and without cancer are strongly different and the risk of residual confounding after adjustment is high. For this reason, different tecniques (such as propensity score matching, cohort matching, ...) should be implemented.
2. The iatrogenic effect of CVD incidence is well-known in cancer patients, but it is strongly different by cancer site. It is therefore necessary to perform cancer-specific analyses

Another important point is that here authors presented CVD mortality and not CVD incidence. This should be stressed in the limitation of the manuscript.

Minor points:

- The manuscript is about CVD mortality, so the introduction should start presenting CVD mortality and not cancer data. Please, invert the order.
- It is not clear which variables are covariates and which are confounders in the section "covariates and counfounders"
- Kaplan-Meyer curves should not be used in presence of competing-risk as in this case
- In the results section, weighted percentages are not useful if they are presented without confidence intervals
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PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

Yes

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Not able to assess

Q 7 Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

yes

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Major revisions.