Author’s response to reviews

Title: Association between Older Age and Outcome after Cardiac Surgery: A Population-Based Cohort Study

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Author’s response to reviews: see over
Dear Editors,

Thank you for the opportunity to revise and resubmit our manuscript to Journal Cardiothoracic Surgery. We have reviewed the Editor and Reviewer comments from your letter dated September 24, 2014 and provide an itemized summary of changes made to the manuscript below. We appreciate the Reviewers’ thoughtful comments on how to improve our manuscript.

All Authors have reviewed and approved the revised manuscript. No Authors have any conflicts of interest to declare.

If there is any further information required, please do not hesitate to contact me. We look forward to your review.

Sincerely,

Wei Wang
Sean M Bagshaw
On behalf of all authors.
Response to Reviewer 1 (Gianni Angelini)

Thank you for asking me to review this paper that reports an experience with elderly over 80 years old patients. The paper is reasonably well written but I’m afraid there is nothing new in this report. There are already extensive reports in the literature of this type of patients so I do not really feel that this study adds anything to what is already well known. I will leave the decision on publication to the Editor.

We appreciate the reviewers comment. While there have been prior studies that have evaluated the outcomes after cardiac surgery for older (>80 year old) patients; we contend many have limitations (smaller; limited centers; focused on specific procedures; comparative to younger patients only) and were published many years ago. Our study is methodologically strong and population-based. We believe our data provide an important contribution in the context of societal demographic transition coupled with the increased prevalence of older patients undergoing cardiac surgery. While we confirm short and long term mortality is higher (indeed, this is expected); we also more importantly clearly show the heightened morbidity risk to older patients. These morbidity events, if occurring, may outweigh the perceived or actual risk of surgery. We believe these data should help to inform the risk for patients considering cardiac surgery and the surgeons, in particular those at highest risk (i.e., planned combined procedures).

Response to Reviewer 2 (Toshiro Kobayashi)

1. In the section of statistical analysis, author described (aortic cross time), clamp was missing. Aortic cross clamp time is right?

   This has now been corrected.

2. In the section of results, sentence of (mortality) is difficult to understand.

   We have now revised this statement to read “The OR of adjusted 30-day and 1-year mortality in octogenarians were 4.83 (95% CI 1.30-17.92, P=0.018) and 4.92 (95%CI 2.32-10.46, P<0.001), respectively (referent group 18-49 years).”

3. In the section of post-operative complications and health service utilization, abbreviations (CRRT, CVICU) are not common words. Author described full spelling in the paper too.

   We have correct these.

4. This paper utilized APPROACH database. Do this database include patient’s cause of death? If so, authors should describe about cause of death based on cardiovascular event or not.
We agree with the reviewer – this is a great suggestion. Unfortunately, the APPROACH database does NOT include cause of death, so we are unable to describe the relative or absolute proportion of patients who died of cardiovascular-specific events.