**Reviewer’s report**

**Title:** Hypertension, mitral valve disease, atrial fibrillation and low education level predict delirium and worst outcome after cardiac surgery in older adults.

**Version:** 2  **Date:** 13 Jan 2018

**Reviewer:** Ary Serpa Neto

**Reviewer’s report:**

I would like to thank the editor and the authors for this reviewed version. I think that the manuscript should be considered for publication and the authors should be acknowledge by the hard work and quality of the paper. I just like to comment (and this is not something to consider for the review process) one of their answers.

Previously, I've sent the following comment:

"The authors still present the number of patients and the period of recruitment in the Methods. As stated in my previous comments, I dont think this is a good approach. For example, CONSORT guideline recommends the inclusion of these informations in the Results only. If the authors prefer to report it in the Methods I kindly ask a good justification."

The authors answered:

"I'm afraid that we disagree with the reviewer. CONSORT guidelines are for randomized clinical trials and this is not the case for the present study. This is an observational cohort study and the correct guidelines to be followed is STROBE that can be found here:"

I understand the point and I know that CONSORT is for RCT and STROBE for observational studies. Indeed, if you look the STROBE checklist, you will find (ref: https://www.strobe-statement.org/fileadmin/Strobe/uploads/checklists/STROBE_checklist_v4_cohort.pdf):

- Methods:

  (a) Cohort study—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up

  (b) Cohort study—For matched studies, give matching criteria and number of exposed and unexposed

    - Results:

      (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed
(b) Give reasons for non-participation at each stage

(c) Consider use of a flow diagram

Thus, as stated also in STROBE, the number of individuals should be reported in the Results. It is important to remember that the "Methods" is a section containing information usually written before the data collection (as the protocol, SAP and others) and this is why the number of patients should be report in the Results.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

None.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.