Reviewer's report


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Reviewer: Jamie Romeo

Reviewer's report:

It seems that you potentially have nice data which could merit some nice and useful results. However, in my opinion some crucial details, variables and analyses are missing to create clinical value and answer currently important questions in the discussion about TOF repair. The data and the statistical analyses are too limited to substantiate the conclusions or suggestions made in the manuscript.

- Page 7. Lines 17-20: Age at the surgery was calculated by the summing of the age at admission and the number of days from admission to the surgery. You subsequently had to eliminate 153 of 1,112 (13.8%) of the patients because the number of days from admission to surgery was not available. First: does the database not register dates/birthdates, admission dates and surgery dates? Second: if not, even if the number of days between admission to surgery is unavailable, how much can this be? This is usually 1, maximally 2 days. What are the changes that it would cause a patient to shift to another group? How many of the 153 were at 'borderline age' so near the age-group boundary?

- Especially interesting is the subgroup analysis focusing on elective correction. In the methods section: elective correction is defined as non-emergent. However, you also mention in the discussion (page 11, line 46-49) you do not distinguish between cyanotic and asymptomatic disease. Who are the patients who undergo emergent surgery? What is the definition of emergent surgery and what is the distribution of cyanotic patients in both the emergent group and the elective group? I would assume that non-emergent would also be non-cyanotic? Furthermore, then the question whether prior palliation has been used is also clinically important, because these are different patients.

- You decided to categorize age. Have you tried entering age in days as a numerical, continuous variable into you regression analyses?

- Length of stay is unlikely to follow a normal distribution. Have you tried a non-parametric approach by comparing medians?

- The surgical approach towards patients with pulmonary atresia/VSD is fundamentally different. The number of patients with PA is really small. Have you considered leaving them out of the analyses?

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

No

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

No

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

No

**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:

Not suitable for publication unless extensively edited

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