Reviewer's report

Title: Logistic Organ Dysfunction Score (LODS): A reliable postoperative risk management score also in cardiac surgical patients?

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Reviewer: Artur Lichtenberg

Reviewer's report:

To go through it point by point:

The abstract is concisely written, but the last sentence should be brought to the first paragraph.

Generally, the application of an “organ” dysfunction score must be put up for discussion in heart surgery, as important conditions of the patient like previous heart function, NYHA stage and valvular versus coronary heart disease are important risk factors, that remain un-respected.

The authors intend to analyze the predictive value of the score for survival. They find that discrimination survival/death is highest on day three. This implicates some limitations, that must be addressed: In daily routine, most patients are discharged from the ICU, which means that they are lost to score calculation that day. This is clearly visible in table 3, with numbers dropping from 2700 to 1300, approximately. We recommend to consider this point in the results and discussion section.

p 4: Was the discrimination good on day 3 because of discharging the healthiest patients?

p 5: The authors report on a good calibration of LODS in all days, which is difficult to understand.

p 6: the effects of the heart-lung-machine are mentioned, which is absolutely justified. However, postoperative cardiac results (e.g. valve incompetence) are not respected by any score excluding heart surgery patients. We ask for a comment in the text.

Overall, the text is well written and tables and figures are relevant for the text and illustrative.

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'