Reviewer’s report

Title: Incidence and outcomes of acute kidney injury after cardiac surgery using either criteria of the RIFLE classification

Version: 2
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Reviewer: Linda Rydén

Reviewer’s report:

This is a retrospective cohort study concerning 443 patients undergoing any cardiac surgery at a single center during one year. The exposure was AKI defined by RIFLE sCr or UO and the primary outcome was to evaluate the incidence of postoperative AKI according to RIFLE and compare the sCr and UO criteria in the RIFLE classification. Secondary outcomes were to compare the length of ICU-stay and 1-year mortality for patients in the RIFLE groups.

This is indeed a well written manuscript. I believe it addresses an important question; whether to use the UO-criteria or not, since the conclusions differs in other studies.

I do have some comments.

Major comments:
- There would be interesting to preform a ROC-analysis to evaluate the sensitivity of RIFLE sCr compared to UO to predict mortality within one year.
- In figure 1 (or an additional figure) it would be interesting to see how the patients in RIFLE stages R, I, F survive over time.

Minor comments
- Table 4 would be improved by some more explanatory text to clarify for an example; increasing age or age over 80y, increasing BMI or BMI>25… Are all ORs calculated in comparison to CABG-patients, this is quite unclear in the table.
- In table 4. Sex is spelled sexe.

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 below.