Reviewer's report

Title: Risk Factors and Outcomes Associated with Acute Kidney Injury following Ruptured Abdominal Aortic Aneurysm

Version: 3 Date: 24 March 2013

Reviewer: Deep Sharma

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Major Compulsory Revisions

1. Figure 1. If data was extracted 1 year post discharge for mortality, how are there 1500 post-operative days in the x-axis. If data was extracted for patients beyond 1 yr, then it needs to be mentioned in the methods.

Minor Essential Revisions

1. In Operational Definitions: need to say how information on pre-op medications obtained.

2. In Operational Definitions: need to say what was a positive troponin, was it any detectable troponin or a specific value.

3. Operational definitions: Need to more specifically define AKI. Was the initial creatinine the baseline creatinine 6 months prior? Was the AKI-defining creatinine at the time of hospital presentation, post-operative creatinine or creatinine anytime during the hospitalization.

4. Operational definitions. The term post-operative AKI needs to be defined, and which creatinine was the post-op creatinine compared to, was it the baseline creatinine or the creatinine at presentation.

5. In Epidemiology and patient characteristics: Please specify if there were any patients with missing baseline data on Creatinine or any other missing variables of baseline characteristics.

6. In Epidemiology and patient characteristics: Please specify if there were any exclusions for ESRD.

7. Incidence and peri-operative factors associated with AKI: In the end of para 1, the table referenced should be table 1, not table 2.

8. Hospital Outcomes: table referenced should be Table 2, not Table 1.

9. Long-term outcome: please mention if anyone had missing 1 year data for mortality.

10. Table 2. Row 1. Baseline SCr needs units.
11. Table 2. Rows 2,3. Units for eGFR should be ml/min/1.73m2, not cm2. Also it should say baseline eGFR rather than just eGFR.

12. Table 2. Row 6. Delta SCr needs units and need to put SD or IQR at the end.

13. Table 2. Column 6. Need to know if p is p for trend of AKI stages or p for comparison between AKI and no AKI.

14. Table 3. Rows 11,12. Same as point 9 above.

15. Table 3. column 5. Need to know if p is p for trend or p for comparison between recovery and non recovery.

16. Figure 1. y axis needs Survival, % as an axis legend.

17. Figure 2. y axis needs the units of eGFR in the axis legend.

18. Figure 2. x axis should say Complete Recovery and Partial Recovery rather than just Complete or Partial.

Discretionary Revisions

1. Epidemiology and patient characteristics: I think the increase in incidence of rAAA should say 6.9% per million per year.

2. Key findings: same point as above.

3. Figure legend for figure 2. Maybe it should say, Renal recover status at hospital discharge or in-hospital mortality stratified by baseline estimated glomerular filtration rate.

4. Table 2. Row 4. Due to large variability in urine output among patients the mean output does not convey much. It may be better to say number of patients that had oliguria, for example. Please say in methods, when the mean urine output data is from during the hospitalization.

Level of interest: An article whose findings are important to those with closely related research interests

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.