Reviewer’s report

Title: Epoetin administrated after cardiac surgery: effects on renal function and inflammation in a randomized controlled study

Version: 2 Date: 12 June 2012

Reviewer: Sarah Faubel

Reviewer’s report:

The authors have conducted a randomized controlled trial to examine whether IV alpha-Epoetin given within 4 hours post cardiac surgery reduced the incidence of AKI.

1. Major compulsory revisions.
   a) The authors note in the discussion that the study may be underpowered – the authors should report what their statistical power was given the number of cases of AKI and the estimated effect (this should be both a NGAL based calculation as well as a creatinine based calculation).
   b) The authors state that their power calculation was based on the ability to detect a difference of “one standard deviation difference”. This should be translated into actual NGAL numbers so that it can be easily interpreted what the expected reduction was.
   c) The data as reported are difficult to interpret and relate to other studies. Specifically, in Table 2, the data are reported as median and interquartile ranges of differences in creatinine and NGAL, I believe it would be much more interpretable to include the median and interquartile ranges of the absolute values of the baseline and follow-up values and that these data should be presented as one table. Also, in table 2, it is not clear what the P value is comparing. Likewise, in table 4, the levels of interleukins are presented as log data; while the data were analyzed in log fashion, the median and interquartile ranges of these data (in pg/mL, which is the usual unit, not pmol/mL) should be reported.

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'