Author's response to reviews

Title: Etiology and outcomes of acute kidney injury in Chinese children: a prospective multi-center investigation

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Etiology and outcomes of acute kidney injury in chinese children: a prospective multi-center investigation

Yan Cao, Zhu-Wen Yi, Hui Zhang, Xi-Qiang Dang, Xiao-Chuan Wu and Ai-Wen Huang

Dear Editor:

Thank you for your letter, regarding the above manuscript by Zhu-Wen Yi, et al. We believe that the reviewer’s comments are constructive and that we have adequately corrected the manuscript as noted below.

Reply to the reviewers’ comments

Reviewer 1

Comments 1…The extensive list of "primary disease" associated with the classification of prerenal, intrarenal & postrenal causes of AKI in pediatric patients requires further analysis & detail to provide a meaningful publication

Reply: we have divided table 2 into new table 2 and table 4,and we have made more analysis in the article according to your suggestion. The etiology of AKI can be divided into prerenal, renal and postrenal AKI, judgement standard refers to Ji SM,Xie HL. The etiologies, pathogenesis and diagnosis of acute renal failure. Zhong Guo Shen Zang Bing Xue(volumn II).2008;1207-1238.
Comments 2…I would encourage developing a spreadsheet of specific patient data from their hospital files to include: relevant clinical, laboratory & radiologic data

Reply: We collected relevant patient data on clinical findings, laboratory and imaging but I’m sorry we unable to include these detailed data as spreadsheet in this article because of large sample size of 1257 patients each with many relevant investigations however we have managed to summarize data and come up with simpler way of addressing study objectives.

Comments 3…Certainly, conclusions should be offered on the large group of patients with exposure to melamine & associated development of nephrolithiasis resulting in AKI

Reply: We have made some modify in the article according to your suggestion.

Comments 4…The patient mortality rate must be analyzed for contributing factors.

Reply: We have made some modify in the article according to your suggestion, analysis the causes of death and add table 5 for further explain

Comments 5…These large data base deserves more than a superficial mention of all these risk factors noted in Table 2.

Reply: We have made more analysis in the article according to your suggestion

Reviewer 2
Comments 1…in the abstract, the authors state that sepsis is one of the major causes of AKI (34.9%), but closer review of data presented in table 2 suggests that sepsis causes 34.9% of mortality associated with AKI. The authors may do better to describe the percentage conditions associated with AKI, conditions associated with chronic renal insufficiency, conditions associated with need for dialysis, and conditions associated mortality from AKI

Reply: Table 2 is right, there was an error in the abstract, and we have corrected it. Concerning the Percentage condition associated with AKI, table 2 try to answer that while percentage condition associated with mortality of AKI is seen in table 4.

Comments 2…In the Introduction, the authors use the terms “prerenal failure, intrinsic renal disease…and obstructive uropathies”. In most of the literature, the terminology used are prerenal, renal, and postrenal disease. Unless the authors are suggesting a new terminology and are able to provide convincing arguments for this new classifications system, I would suggest the authors conform to the prevalent classification scheme

Reply: We have made some modify in the article according to your suggestion.

Comments 3…In the Results, the authors describe two different kinds of hospitals from which patients were recruited. The readership of this journal includes many for whom these classifications are not well known. The difference between “provincial or municipal childrens’ hospitals” and “Grade III class A hospitals” is not well known to
me, and the authors would do well to describe this better. For readers in different
countries, the characteristics they would specifically want to know are

a. Is this a training hospital?

b. Does this hospital have pediatric critical care?

c. What is the size of the hospital?

d. Do these different types of hospitals all have pediatric nephrologists and
pediatric urologists?

It would be important to know these characteristics, because this allows the
readership to generalize these results to the population in their community or
country.

e. The contribution of patents from each hospital should be mentioned. Did one or two
hospitals contribute the majority of the patients?

Reply: China’s Grade III class A hospitals equals to general hospital in your country.

All the Grade III class A hospitals selected by us are General hospitals Affiliated to
the Medical University with the following

a. they are all training hospital

b. all have pediatric intensive care unit

c. each hospital has ward bed more than 2000, among which pediatric ward bed is
more than 100

d. all the hospitals have pediatric nephrologists and pediatric urologists

e. although the number of cases each hospital offered are not equal, but the difference
is not large.
We have also made some changes in the abstract and methodology

Comments 4…In the Results section, the discussion of mortality is difficult to understand because the mortality is not separated from data in Table 2. The authors should provide a separate table describing the incidence of prerenal, renal, and post renal conditions in patients that suffered mortality. Also, the numbers described in the mortality results do not match what is in Table 2, which is why I would ask the authors to pull this data out separately for re-review: “Of the 188 renal AKI patients” this should be prerenal according to the data in Table 2. “There were 39 deaths among the 723 prenal AKI cases.” This should be renal AKI cases. Finally, “no deaths occurred among the 723 post renal AKI patients” this should be 323 post renal cases

Reply: We have made the changes you suggested by describing Mortality observed among AKI pediatric patient according to prerenal, renal and postrenal etiologies separately in table 4.

Comments 5…The authors may want to include another table that compares the dominant causes of AKI as a function of age. It would be beneficial to “collapse” some of the categories listed in Table 1 into “super-categories”, e.g., traffic accidents, drowning and crush syndrome could be collapsed into “childhood trauma. This might provide some interesting data about trends of causes associated with different age groups.
**Reply:** We have taken your suggestion by adding another table (No.3) which show the
trends of etiologies according to age groups.

Comments 6…Some minor revisions:

a. Discussion, 4th paragraph: as mentioned above, sepsis cannot be considered a
major cause of AKI (although it is a major condition in patients that suffer mortality).
Neonatal jaundice was a more common cause in patients with AKI, and should be
included before sepsis.

**Reply:** We have made some modify in the article according to your suggestion.

b. Discussion, 6th paragraph: the authors point out that sepsis was a common
condition in patients who suffered mortality, although sepsis was only present in 4.9%
of patients presenting with AKI. The authors specifically state “sepsis, malignant
tumors, and HUS accounted for a relatively small proportion of case which again
emphasizes the important of separating sepsis from a common cause of AKI, but
remains an important condition associated with mortality of AKI.

**Reply:** We have made some modify in the article according to your suggestion.

c. In Table 1, the “breakpoints” for age categories are not commonly used in the
pediatric nephrology or urology literature. I would suggest that the authors use
neonate (<1 month), infant (1 month – 1 year of age), toddler (1 year – 5 years of age),
child (6 years – 10 years of age), preadolescent (10 years – 13 years of age) and
adolescent (14 years – 18 years of age). Another option is to use similar age groups as used in references 5 or 9.

Reply: In this paper, The “breakpoints” of age categories is according to China's national higher school teaching materials(The seventh edition of pediatrics), which we think is more suitable for Chinese children also may provide basis for comparison case of future studies in China. Though we acknowledge the idea you have posed on issue of breakpoint ages which needs standardization.

Not suitable for publication unless extensively edited

Reply: We have checked typo and grammatical errors. In addition, we have asked CrossEdit Company to help us to edit the language. The following file is the “CERTIFICATE OF ENGLISH EDITING” from them.

Editorial Request:

1. Can you please revise the Background section of the Abstract so that it places your study into context, in addition to stating the study objectives

Reply: We have revised the Background section of the Abstract.

2. Please can you include a Competing Interests and Authors’ Contribution section

Reply: We have include a Competing Interests and Authors’ Contribution section in the revised manuscript.
We believe that we have given satisfactory replies to the reviewers’ comments and hope that this manuscript is now acceptable for publication. And we thank you and Reviewers very much for making comments upon our manuscript.

Sincerely,

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