Reviewer’s report

Title: Epidemiology of acute kidney injury in Hungarian intensive care units: a multicenter, prospective, observational study

Version: 1 Date: 5 March 2011

Reviewer: Monique M Elseviers

Reviewer’s report:

Epidemiology of acute kidney injury in Hungarian intensive care units: a multicenter, prospective, observational study
Laszlo Medve, Csaba Antek, Balazs Paloczi, Szilvia Kocs, Bela Gartner, Zsuzsanna Marjanek, Gabor Bencsik, Peter Kanizsai and Tibor Gondos

Dear authors,

I read with interest your manuscripts describing the epidemiology of AKI in Hungarian ICUs. Your intention to investigate for the first time the epidemiology of AKI in Hungarian ICUs forms an attractive topic, particularly at the national level. The methodology used for data collection with the participation of different kind of hospitals and with an electronic data collection system enabling immediate control of the data looked promising. It is particularly in the handling of the data that important shortcomings could be noticed. Extra statistical advise is highly recommended.

1. Major Compulsory Revisions
1.1 Background – 2nd par:
Your second aim is to evaluate the impact of AKI on outcomes in the context of other risk factors – for this evaluation a much more systematic and in-depth comparison between risk factors and outcome in both groups (AKI versus non-AKI) needs to be performed completed with multivariate analysis to investigate the contribution of these risk factors on outcome

1.2 Methods - Statistical analysis
This section is incomplete and gives incorrect information
Incomplete: only continuous data can be expressed as mean or median – others are preferentially expressed as percentage – when and why you used median instead of mean?
Incorrect: median values are not analyzed with chi-square test

1.3 Results
The order of presenting the results is confusing and not logic. The presentation of the results is incomplete, a large part of data analysis is lacking. Particularly the presentation of data in the tables shows important shortcomings:
Table 1 and 2: why all results are separately presented by gender? Is this the most important discriminating factor?

All tables: to see any difference between groups, it is highly recommended to express your categorical variables as percentage, not only as raw numbers

P-values of .0000 do not exist in reality and are preferentially expressed as p<.001. Other p-values seem to be incorrect and needs to be carefully recalculated!

1.4 Discussion

Limitations of your work are not handled

Several statements are not supported by the data.

Some examples:
- 1st par: ‘increased incidence of AKI’ compared to what?
- 2nd par: is drug toxicity the most important factor in the elderly?
- 8th par – last sentence: did you notice non-uniform treatment principles – this was not handled in the results

1.5 Conclusion

The conclusion is too vague. Not all aims of the study are handled.

2. Minor Essential Revisions

- figure 1: correct ‘DRUG-related’
- abstract: total sample size is lacking in results section
- reference 3: year of publication is not correct

3. Discretionary Revisions

- abstract method: confusing presentation of the period of data collection for a European readership
- ref 5 and 6: outdated references on incidence of AKI

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.