Reviewer’s report

Title: Haemodynamic consequences of changing potassium concentrations in haemodialysis fluids

Version: 1 Date: 8 February 2011

Reviewer: Radojica Stolic

Reviewer’s report:

Dear Editor,

Thank you for sending your work: 'Haemodynamic consequences of changing potassium concentrations in haemodialysis fluids', from authors: Luke Gabutti, Igor Salvador Barbara Lucchini, Davide Soldini, Michel Burnier for review.

Despite all technical improvements, one of the most frequent complications in hemodialysis is remains intradialytic hypotension, which often occurs when normal compensatory mechanisms cannot cope with the removal of intravascular fluid in a short period of time. Therefore is hypotension a significant problem in patients on HD which significantly reduces the quality of life.

My doubts and questions:

The study was methodologically well-designed, with current research parameters, with a relatively small number of subjects which can be a limiting factor of rational reasoning.

The introduction is lengthy. All references that you listed are related to the introductory remarks.

Literature help us to compare our results in the discussion with the findings of other studies, and you are relying on the results of a study (reference 1) where isn’t found statistically significant change in blood pressure at the beginning and end of the study. Does it mean that there is insufficient data in the literature of the issue that you are speaking about?

Important omission is the lack of any comment on the possible impact cardiomyopathy on the occurrence of hypotension, given that the average age of the respondents is 70 ± 9.8 years.

Table 2 shows the 14 respondents who in their regular therapy use ACE inhibitors. You do not have comments about how it affects the concentration of potassium.

How you have calculated the ultrafiltration, hourly, or as a total loss during dialysis session?

Minor Essential Revisions

I have a dilemma, does the patient under number two (Table 2) have or doesn’t have diabetes mellitus?
There are no figures with title.
On which reference do you think in the discussion that is referring to the results of experimental research?
References 7 and 18 are the same.

Discretionary revisions

It would be clearer that the values of investigated parameters are shown in the figures.

**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'