Author's response to reviews

Title: Undercorrection of hypernatremia is frequent and associated to mortality.

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Author's response to reviews: see over
Dear Editor-in-Chief,

We thank you for having considered our original article entitled "Undercorrection of hypernatremia is frequent and associated to mortality." for publication in *BMC Nephrology*. Please find below the answers to reviewers' concerns and the modified manuscript. Thank you for all the proposed improvements. We hope that the changes made will fulfill the editorial board and the reviewer's questions.

Sincerely,

Stanislas Bataille, MD
**Answers to Editorial Requests:**

**General Remarks.**
The authors have made further modifications in the re-submitted manuscript which is now much improved. These include the inclusion of serum sodium in the multivariate model, a greater acknowledgement of the limitations. I would ask that concluding statement in the abstract and in the discussion be modified to reflect the observational nature of the study. I would also ask that the Titles of the Tables be modified as suggested.

**Minor modifications**

1) **Conclusions**
This is the first study assessing outcome of hypernatremic patients in the ED according to the treatment provided. It appears that not only a too quick, but also a too slow correction speed increases the risk of death regardless of initial natremia. Medical management of hypernatremic patients must be improved regarding evaluation and treatment.

*Please change to above to that suggested below*

**Conclusions**
This is the first study assessing outcome of hypernatremic patients in the ED according to the treatment provided. It appears that not only a too quick, but also a too slow correction speed is associated with an increased risk of death regardless of initial natremia. Medical management of hypernatremic patients must be improved regarding evaluation and treatment.

Changes was made in the Abstract as recommended. For the Paper conclusions, changes were also made to reflect the observational nature of the study:

"This is the first study assessing outcome of hypernatremic patients in an ED according to the provided treatment. It suggests that medical management of hypernatremic patients must be improved regarding evaluation (weight, diuresis, urinary ionogram) and management (type of solute, perfusion speed) and that a too slow correction speed is associated with an increased risk of death regardless of initial natremia."

2) **Title of Table 2**
Would suggest changing to

*Table 2: Initial fluid replacement strategy on arrival at emergency department*
We thank the editor for his helping in manuscript improvement and modified Titles as proposed.

3) Title of Table 4
Would suggest changing to
Table 4: Factors associated with death during hospitalization: univariate and multivariate analysis using a Cox regression model (n=78).

Done

4) Title of Table 5
Would suggest changing to
Table 5: Studies reporting out-of-hospital acquired hypernatremia.

Done