**Reviewer’s report**

**Title:** Investigation and management of moderate to severe inpatient hyponatraemia in an Australian tertiary hospital

**Version:** 0  **Date:** 14 Sep 2018

**Reviewer:** Henrik Falhammar

**Reviewer's report:**

The manuscript by Berkman et al. is well-written and interesting, albeit not unique. It has made me reconsider my thoughts about oral urea to become more positive. I have a few comments that could be considered.

1. **Background:** Mostly the same references [1, 2] are used in the entire section. Maybe add 1 or 2 more?

2. How many admissions were there in total to the PA hospital during the studied period and what was the frequency of severe hyponatremia among them?

3. Page 6, Line 40: Maybe add the initials of the three investigators here as well and not just in the contribution section.

4. Page 9, Line 6: Why was the cut off 400 mOsm/kg chosen?

5. What different teams (general medicine, general surgery, cardiology, endocrinology, neurology, nephrology, oncology, psychiatry, ICU etc.) where the patients admitted under? If the numbers are not too small, were there any differences in investigations, diagnosis and management between the team?

6. References: Some references, e.g., nr 12, 14 and 15 have et al. after the first authors while others don't. Is there a reason?

7. Drug-induced hyponatremia is common. Recently it has been reported that different antidepressants, antiepileptic drugs and proton pump inhibitors have different association with hyponatremia resulting in hospitalization. The risk seemed to only occur the first three months after commencing the drugs. Could more details be given of the different drugs the patients with severe hyponatremia was using when being admitted and when these had been commenced?
8. Table 4: Only one patient ceased one drug? No change in drugs? No other drugs that were ceased or changed, e.g., antidepressants, antiepileptic drugs and so on?

9. Table 2: Not sure what the "Not Documented" column stands for. Does it mean that the tests were checked but not documented in the text of the medical files, just in the pathology section?

10. Was tolvaptan used in any case?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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