Reviewer’s report

Title: Serum Copeptin Levels in the Emergency Department Predict Major Clinical Outcomes in Adult Trauma Patients

Version: 0 Date: 08 Oct 2019

Reviewer: Gopala Rangan

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This is a single centre prospective cohort study (n=125) that evaluates the potential for copeptin to identify patients with poor outcomes with major trauma. The data shows that copeptin predicted clinical outcomes and performed better than serum lactate, and has been com

Main comment:
* The superiority of copeptin over other measures (ISS, lactate) is not clear in this paper, as reaching this conclusion is dependent on a multitude of other clinical factors, such as: practicality and availability of the assay; time taken to perform the assay and the cost of the assay. In this regard, as a reader, I am unsure from reading the paper as to whether copeptin has "high clinical value", as defined by the American College of Physicians. I am sure that the authors could strengthen this discussion much more in the Abstract, Introduction/Methods and Discussion.

* There is limited data in literature suggesting that renal function may be a cofounding variable in the interpretation of copeptin (see Corradi et al. Clin Nephrol 86:147, 2016). This data may or may not be relevant to the current, but I would be grateful if the authors could consider this possibility, and if appropriate address it in the Discussion and/or if serum creatinine could be included in the Results (as well as potential correlation)

Other comments
Abstract
Page 2: Line 17: "perspective" is mis-spelt
Page 2: Line 24: "good ability" is an unclear statement - is it validated against the gold standard? - what is the gold standard and what does the term "good" signify?
Page 3: Lines 1-2: Same criticism of the statement: "significantly superior to lactate"
Page 3: Lines 17-24: The conclusion could be improved. My main concern is that the gold standard has not been described and thus difficult to justify the 'superiority' of copeptin

Methods
Page 5, Line 16: "perspective" is mis-spelt
Page 6: Lines 17-22: The inclusion criteria is somewhat vague and leads to the speculation of selection bias. More detail should be provided.
Page 6: More clarity on the gold standard for the endpoints should be provided

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

No
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.

No

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:

Needs some language corrections before being published

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