Author's response to reviews

Title: Hyponatremia during hospitalization and in-hospital mortality in patients hospitalized from heart failure

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Author's response to reviews: see over
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Dear Mr Manangan

Thank you for the comments from reviewers on my manuscript. Please find below our responses:

1st reviewer (Dmitry Shchekochikhin)

Major revision

1) Text inserted: “Serum sodium level for patients with severe hyperglycaemia has been corrected using correction factor of 2.4 per 100mg/dL increase of blood glucose level (Hillier et al, 1999).” The manuscript have been changed accordingly in the method, results and discussion sections.

Minor revision

1) Patients' characteristics in subgroups - hyponatremia in admission, developing hyponatremia during hospitalisation in patients with normal serum sodium at admission--: it is difficult to classify patients into those subgroups because around half of patients with hyponatremia at admission also showed hyponatremia during hospitalization. As stated in the manuscript, this study focused on hyponatremia during hospitalization so that patients were classified into non-hyponatremia and hyponatremia during hospitalization
2) This is a retrospective study retrieving data manually from medical records. We have attempted to collect additional data that could inform explanation of hyponatremic conditions of the patients but the data suggested was not available.
3) We did not make adjustment when performing logistic regression analysis. Only univariate logistic regression analysis was used to assess the association between hyponatremia and in-hospital mortality
2nd reviewer (Naoki Sato)

Information has been added on the variables associated with hyponatremia during hospitalization in the manuscript. From multivariate logistic regression analysis including variables of signs and symptoms, medical history, laboratory profiles at admission and medications administered during hospitalization we found that administration of heparin and antibiotics was associated with hyponatremia. No others information could be added because information collected from the medical records are limited. In addition, the study is aimed to increase awareness of hyponatremia, especially in Indonesia, and to trigger more accurate diagnosis and adequate treatment of hyponatremia.

We hope the changes have addressed the comments.

Yours Sincerely,

S. Saepudin