Reviewer’s report

Title: Definition of hourly urine output influences reported incidence and staging of acute kidney injury

Version: 0 Date: 15 Jul 2019

Reviewer: Fozia Ajmal

Reviewer's report:

Reviewer Comments:

The study determines the validity of UO as a screening test for AKI. It compares UO consecutive and UO mean against the gold standard test. The study noted a variation in the UO consecutive and UO mean in the diagnosis and staging of AKI. The value of UO as a screening measure for AKI is in current debates and thus the study is timely. However, addressing a few areas would improve the study.

* Study objectives and hypothesis are not mentioned clearly.

* An explanation of what post-hoc analysis meant would have helped.

* The number of deaths among ICU patients is not mentioned.

* UO is measured more precisely among patients with a catheter. It was not clear if all the patients in the study were catheterized. If not, then research indicates that UO is usually manually, which can result in clerical errors. This could be added as a study limitation.

* The study focuses on comparing UO as a screening test. The authors do not give a rationale for using the logistic regression analysis. The information about the factors the logistic regression model was adjusted for would have helped. Also, AORs for all the factors included in the table 1 would have helped readers in understanding how the AORs vary for the other factors.

* Accuracy and ROC curve should also be presented along with the sensitivity and specificity and Negative and positive predictive values.

* The authors may consider citing the article by Makris and Spanou: "Makris, K., &amp; Spanou, L. (2016). Acute kidney injury: diagnostic approaches and controversies. The Clinical Biochemist Reviews, 37 (4), 153." The article provides a good description about different measures of AKI.
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- Are the description of any error bars and probability values appropriate?
- Are all error bars defined in the corresponding figure legends?
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