Reviewer’s report

Title: Hospital mortality in acute coronary syndrome: adjustment of GRACE score by D-dimer enables a more accurate prediction in a prospective cohort study

Version: 0 Date: 27 Apr 2019

Reviewer: Thao Huynh

Reviewer's report:

I read with interest the manuscript. The idea of adding d-dimer to the grace score was certainly interesting and merits evaluation.

However, there are many issues that would need the authors attention and remedial prior to eventual publication:

1. The grammar of the manuscript will need major revision.
2. The exclusion of patients who received prior heparin before d-dimer suggest potential selection bias with exclusion of higher-risk patients.
3. Would be interesting to know the spread of d-dimer values, and also the range of d-dimer values for the three groups of patients (low, intermediate, high d-dimers). It would have been clinically more useful to have a cut-off value of d-dimer to identify the patients at the highest risk of in-hospital mortality.

Also I do not believe that classification of patients into three tertiles of d-dimers would be clinically relevant. It would have been more interesting to have a cut-off value of d-dimer which predicts the most in-hospital mortality.

4. The relationship of d-dimer with in-hospital mortality is also not well shown, linear, exponential, u-curve.....Can the authors elaborate more on this.

5. Statistical expertise highly recommended for closer look of the comparison of the roc curves of the grace and grace+d-dimer. ON the figure 2, the 2 curves look super-imposed, so I am not convinced that there are true differences between the 2 curves.

6. Why inclusion of only patients with PCI and not all patients with ACS?

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.

No

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 recommend additional statistical review

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

Not suitable for publication unless extensively edited

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