**Reviewer’s report**

**Title:** Blood lactate is a predictor of short-term mortality in patients with myocardial infarction complicated by heart failure but without cardiogenic shock

**Version:** 0 **Date:** 03 Jul 2017

**Reviewer:** Rita Pavasini

**Reviewer's report:**

This is an interesting analysis on the prognostic role of lactates in HF patients (killip class 2-3) with AMI. The analysis is really simple, I would suggest some additional analysis to improve the scientific value of this paper.

- The analysis is addressed to the first value of lactate (on arrival). It could be interesting to value the trend of lactate during hospitalization, valuing the delta of variation of the levels of lactate and the peak of lactate.

- The presence of diabetes seems to be not considered in statistical analysis, however lactate levels is highly influenced by the glucose metabolism, so analysis should take into account also the presence of this CV risk factor.

- Were all patients treated with PCI? Or the analysis included also patients admitted for STEMI, but with absence of obstructive CAD.

- How was the TIMI flow in coronary vessel at the time of reperfusion? And after? Please add and correct analysis for this data.

- Is it possible to have a measure of the extent of the necrosis/ischemia, for example in term of ejection fraction, vessel treated?

- Is it possible to have data regarding time to balloon or time to symptom? The level of lactates could be influenced by the "ischemia time".

- Who performed the killip classification? Was it blinded to the outcome?
- The diagnosis of heart failure based only on Killip class classification is somewhat minimalist, it would be great to extent the analysis considering BNP (or similar) levels and EF data.

- Which kind of medical record have been used to obtain data for blood pressure and Killip class? ER medical notes? Cardiological medical records? Please specify.

- Were patients treated with inotropes excluded from this analysis? Please specify.

- Please in table 2, report p for significance between groups.

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.

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

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