**Author’s response to reviews**

**Title:** Association of Japan Coma Scale score on hospital arrival with in-hospital mortality among trauma patients

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Red and blue text indicate the parts that we changed according to Reviewer 1 and 2, respectively.

Response to Reviewer 1

- The author should mention the design of the study.

Response: We have added the design of the current study (Methods section, line 100, page 7).

- Please say about inclusion and exclusion criteria.

Response: We have rephrased inclusion and exclusion criteria more clearly (Methods section, line 118, page 8)

- The author should mention the methods of data collection.

Response: We have added explanation of data collection accordingly (Methods section, line 113, page 8).

--In all paper, mention Percent and Frequency together.
Response: We have corrected accordingly (Abstract, line 47, page 3, and Results section, line 184, page 12).

-Please mention if JCS has been considered as one of the inclusion criteria? If yes, please explain about its range.

Response: This study has no inclusion criteria regarding JCS score.

-The author should explain the ROC analysis before logistic regression.

Response: We have revised accordingly including the changing order of Tables (Abstract, line 43, page 3, Methods section, line 150, page 10, and Results section, line 188, page 12).

-The manuscript has some grammatical mistakes and types and needs to be edited.

Response: We have corrected as follows.

We have deleted duplicate words; “from” (Methods section, line 108, page 7), and “of” (Methods section, line 121, page 8).

JSC has corrected to JCS (Methods section, line 154, page 10).

We have removed “of” (Discussion section, line 266, page 17).

Response to Reviewer 2

1. In introduction section: Line 89: The aim of the study was not the same as the primary objective, please consider to rephrase.

Response: We have rephrased in accordance with the primary outcome (Introduction section, line 90, page 6).

2. In methods section, participants section; Line 116: Please add in the exclusion that the study excluded burn injuries and rephrase the paragraph in line 116.

Response: We have corrected exclusion criteria appropriately (Methods section, line 120, page 8).

Line 135: The primary outcomes was in-hospital mortality we don't know for the time frame either short term or long term mortality. The secondary outcome should be the only presence of severe TBI or absence of severe TBI, should not be both.
Response: We have rephrased more clearly as follows: The secondary outcome was the presence of severe TBI, which was defined as head AIS scores of 4 or 5 (Methods section, line 138, page 9).

Please consider to add the definition of AIS because the authors used the AIS as a secondary outcome.

Response: The definition of AIS was indicated in the above (Methods section, line 108, page 7)

3. In results session: Line 446 The presentation of GCS in the table is a little bit confused. Because when we saw the JCS we can understand well that the higher the number of JCS represented the higher mortality rate. Could it be possible to present the GCS in the same way with JCS? Ex. E 4,3,2,1, etc.

Response: We agree with your suggestion. We have changed accordingly adding following explanation. The adjusted ORs of the GCS (eye, verbal, and motor response scores and total sum scores) represent the increase in odds of the outcome with every one unit decrease in the score (Results section, line 205 and 215, page 14, and Table 3, S4, and S6).