Author’s response to reviews

Title: A NADE Nomogram to Predict the Probability of 6-Month Unfavorable Outcome in Chinese Patients with Ischemic Stroke

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Author’s response to reviews:

Dear Editors and Reviewer:
Thank you very much for giving us this opportunity to resubmit our manuscript entitled: “A NADE Nomogram to Predict the Probability of 6-Month Unfavorable Outcome in Chinese Patients with Ischemic Stroke (NURL-D-19-00361)”, I should like to express my appreciation to you and the reviewers for suggesting how to improve our paper. According to the reviewers’ comments, we have made correction which we hope meet with their approval. Point by point responses to the reviewer’s comments are listed below.

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Reviewer #1:
The authors report the results of a project that developed a nomogram that would predict outcomes after stroke. The variables selected were: age, NIHSS score, history of diabetes, and creatinine levels. A system of escalating points for each variable when combined could be used to predict outcome. The study is of interest. The findings are not surprising. All these variables are already known to be strong forecasters of outcomes. The usefulness of this rating instrument is unclear. This reviewer objects to the use of the word "novel" for this system is built on similar clinical scales. The introduction and discussion are long and repetitive. Please condense. Please shorten the tables by focusing on only those features that are important for this research. This reviewer admires the authors efforts to write this paper in English. Still, there are problems in word usage and grammar. The authors should seek the assistance of a native speaker of English to help improve the paper.

1) Major comments: This reviewer objects to the use of the word "novel" for this system is built on similar clinical scales.
Author response: We appreciate the comments of the reviewer. We have deleted the "novel". The details are as follow:
1.1 In the title, we deleted the “novel”
1.2 In the third paragraph of Discussion, we deleted the “novel” in the first sentence.
1.3 In the fourth paragraph of Discussion, we deleted the “novel and” in the first sentence.
1.4 In conclusions, we deleted the “novel and” in the first sentence.

2) Major comments: The introduction and discussion are long and repetitive.
Author response: Thank you very much for pointing this out, we have revised this section in introduction and discussion, the details are as follow:
2.1 We deleted the second paragraph of introduction.
2.2 We deleted “Using continuous variables including age and NIHSS, a nomogram is a better visual tool to predict clinical outcomes than the models and scores enumerated above” in the first sentence of third paragraph of introduction.
2.3 In the third paragraph of discussion, we altered “That is, we found that NIHSS score on admission (OR: 1.190, 95%CI: 1.125-1.258), age (OR: 1.068, 95%CI: 1.045-1.090), previous diabetes mellitus (OR: 1.995, 95%CI: 1.236-3.221) and creatinine (OR: 1.010, 95%CI: 1.002-1.018) were significant and independent predictors of poor outcome.” into “That is, we found that NIHSS score on admission, age, previous diabetes mellitus and creatinine were significant and independent predictors of poor outcome.”
2.4 We deleted the last sentence of the fourth paragraph of discussion.
2.5 We deleted the last paragraph of discussion.

3) Major comments: Please shorten the tables by focusing on only those features that are important for
Author response: We are very grateful for your suggestions. We have shortened the Table 1 by focusing on only those features that are important to this research. And we have put the other variables into the Supplement 1.

4) Major comments: This reviewer admires the authors efforts to write this paper in English. Still, there are problems in word usage and grammar. The authors should seek the assistance of a native speaker of English to help improve the paper.

Author response: Thank you very much for your suggestion, we invited a native speaker of English to improve the paper.

Reviewer #2:
1) Major comments: The methods are not appropriate and well described.

Author response: Thank you very much for your suggestion, we have revised this section in the methods, the details are as follow:

1.1 In the third paragraph of methods, we altered “Baseline characteristics are summarized with descriptive statistics, means with standard deviation [SD] or median value with interquartile range for continuous variables, numbers [percentages] for categorical variables” into “Baseline characteristics were summarized with descriptive statistics, continuous variables were reported as median value with interquartile range or means with standard deviation [SD]. categorical variables were instead expressed as number of events and percentage, dividing the number of events by the total number excluding missing and unknown cases”.

1.2 In the fourth paragraph of methods, we added “A final model selection was carried out by a backward stepdown selection process with the Akaike information criterion”.

1.3 In the fourth paragraph of methods, we added “The performance of the model was assessed by discrimination (the ability of a proposed model to separate patients with different outcomes) and calibration (the relative distance of predictions from actual outcome)”.

1.4 In the fourth paragraph of methods, we deleted “The NADE nomogram enables discrimination of patients with favorable outcome from those with unfavorable outcome”.

2) Major comments: The work does not include the necessary controls.

Author response: Thank you very much for pointing this out, we have revised this section in the methods, and the quality of laboratory data and assessment of Baseline NIHSS and 6-month mRS were included.

2.1 In the second paragraph of methods, we added “The quality of laboratory data was validated throughout the study period by regular internal quality control procedures and participation to an External Quality Assessment scheme”.

2.2 In the second paragraph of methods, we altered “Telephone follow-up was performed during 6-month” into “Baseline NIHSS and 6-month mRS were assessed by trained physicians with telephone questionnaires or face-to-face interviews”.

4) Major comments: This reviewer admires the authors efforts to write this paper in English. Still, there are problems in word usage and grammar. The authors should seek the assistance of a native speaker of English to help improve the paper.

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