Author's response to reviews

Title: Stratification of the severity of critically ill patients with classification trees

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Dear Sir:

We have updated Table 6, which was wrong, and answered the points exposed by the reviewer:

RESPONSE TO REVIEWER

1 - As the reviewer said Table 6 is not correct. We have recalculated all the values and changed those that were erroneous.

2 - The severity scores were not recalibrated and they were applied in all the population (development and validation sets). This is indicated in Table 6 ("The severity scores are not developed in the development phase and recalibration was not performed").

Also we added a commentary in the comparison section of model properties ("The severity scores were applied without making recalibration in all the population (development and validation sets")).

3 - We have revised the value of the SMR for LR in the validation set (1.22 (1.16 - 1.29)). This value is represented by the curve of Figure 4. Figure 5 has been modified by adding a comparison between LR and CART. All models (including those not developed in this paper) have poorer calibration in validation set (differences attributed in part to the random partition). In Figure 5 we show that in some cases, there is a different allocation of probability between the individual models. The allocation of different probability of death determined that although similar property of discrimination is conserved the calibration can be different. We added a paragraph in the section Individual Comparison of probabilities: ("The different models generate, in some patients, different allocation of death provability. When performing a validation with records not used in the phase of development, the different allocation of probability determines in our case a conservation of a similar discrimination but that the calibration is different (being better for the AC.")
Sincerely,

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