Review of: "Longer than 2 hours to antibiotics is associated with doubling of mortality in a multinational community-acquired bacterial meningitis cohort"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

Thank you for the opportunity of reviewing this manuscript about the timing of antibiotic therapy among patients with CABM. I reviewed this manuscript with great interest, but there were some critical problems for publication.

First, the authors described that stepwise selection was used to select important predictors of outcomes from the full model. However, the authors did not describe the variables input the multivariable logistic regression model, and the selected variables from all variables. This does not allow the readers to understand how the analysis was done. And then, the stepwise method is not commonly used in multivariable logistic regression model in recent years, and the forced imputation method is commonly used. Therefore, if a multivariable logistic regression model is to be used, clinically important factors should be evaluated using the forced imputation method.

Next, the authors described that the propensity score was adjusted for gender and age, but it does not describe anything about the validity of the propensity score. In general, if the propensity score was calculated using a multivariable logistic regression model, the AUC of the propensity score should be calculated and the propensity score should be assessed for the validity.
It is also described that the logistic probability of receiving treatment within a specific time was adjusted for in the propensity score, but this time is affected not only by age and gender, but also by various factors such as the patient condition with or without shock, participating institution, and day of the week. If this is the case, the validity of propensity score in this study, which only was calculated with gender and age, is highly questionable.

This study is clinically interesting. However, the results are unreliable because the statistical analysis is fundamentally wrong, as described above.

Reject.