Usefulness of the TRIPOD guideline to a prediction model development improvement (PREDICE-SCORE).

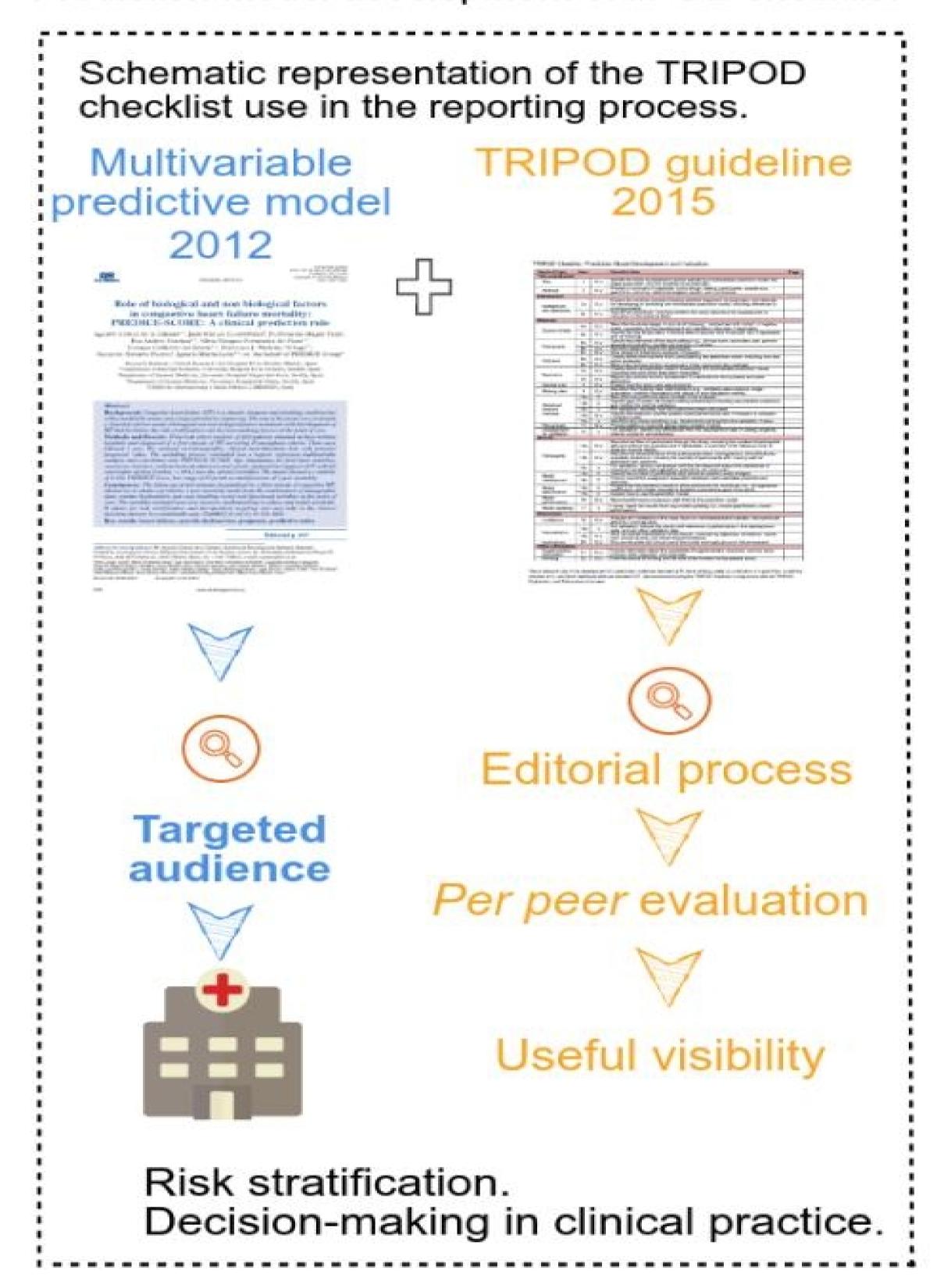
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INTRODUCTION: TRIPOD Statement offers a series of recommendations to improve the reporting of predictive models. In 2012 our group developed and published a clinical prediction rule in "de novo" heart failure (HF) called PREDICE-SCORE, since the TRIPOD Statement was not yet published the aim of this project was to assess the quality of PREDICE-SCORE original paper and locate possible deficiencies, following the TRIPOD' recommendations.

METHODS:

Prediction model development TRIPOD checklist



RESULTS:

In the original article, several of the recommendations of the TRIPOD guideline were not attended:

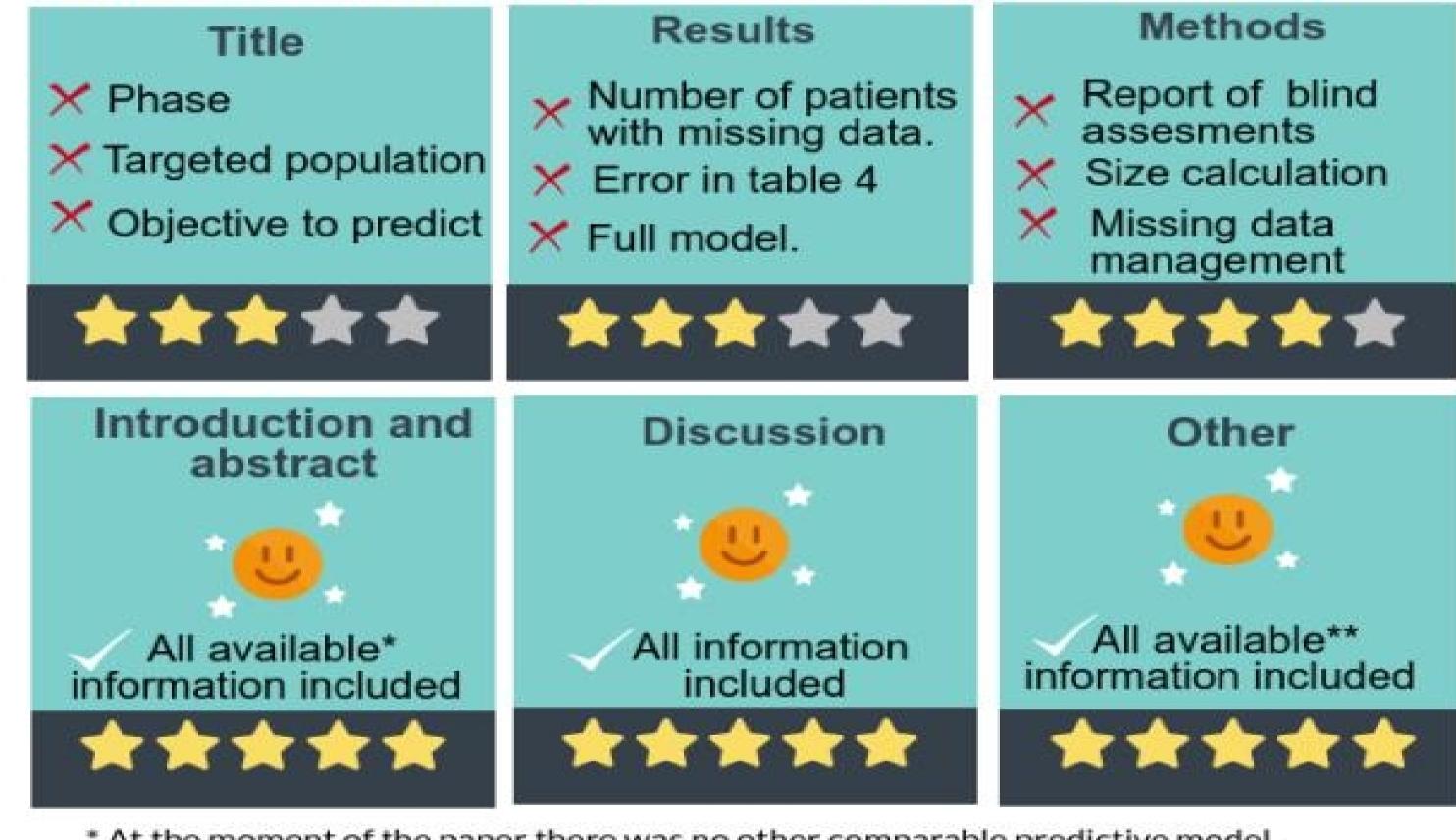
- measures of accuracy in the construction of the statistical model and in the clinical prediction rule.
- the management of lost data.
- the unappropriated examples for the use of the predictive model.



In addition, we detected two mistakes:

- Table 3 heading n=412 instead of n=600.
- Table 4 transcription of percentages that estimate the risk.

"Role of biological and non biological factors in congestive heart failure mortality: PREDICE-SCORE: A clinical prediction rule"



- * At the moment of the paper there was no other comparable predictive model.
- ** The creation of a web calculator is proposed.

CONCLUSIONS:

We found missing and wrong information in the PREDICE-SCORE original published article that could have been avoided. TRIPOD recommendations clearly contribute to the improvement of prognostic research.



What if we had had the TRIPOD in 2012 Same Multivariable prediction model better reported



More accurate title: "Development of PREDICE-SCORE: a clinical prediction rule of mortality at one year in the debut of heart failure"



Improve the patient flow report:

- Include a flow chart
- Detection of an error in Table 3 heading (should) be written n=412 instead of n=600)



Add the Prognosis Index (Formula to construct the predictive model).



Give examples of prognosis with the predictive model and the user-friendly model.



Report how the size was calculated and if any action was taken to blind the outcome or the predictor.



Report how missing data and participants with missing data were managed



Detection of an error in Table 4: Error in percentage of risk in user-friendly model.



Check the quality of the development process itself for improvements following the TRIPOD recommendations.

Since the TRIPOD check the presence of "key details of how prediction models were developed and validated, also can be seen as a tool to drive the process to create a prognostic model in research as well to as for the critical appraisal of a prognosis article











