

Peer Review Report

Review Report on Prediction of Hypertension in the Pediatric Population Using Machine Learning and Transfer Learning: A Multicentric Analysis of the SAYCARE Study

Original Article, Int. J. Public Health

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EVALUATION

Q 1 Please summarize the main findings of the study.

Thank you for giving me the opportunity to review the manuscript entitled "Prediction of Hypertension in the Pediatric Population Using Machine Learning and Transfer Learning: A Multicentric Analysis of the SAYCARE Study". The main objective of this work is to develop a machine learning (ML) model using transfer learning (TL) techniques to predict hypertension in children and adolescents in South America. Methods. The field is very interesting and the structure of the manuscript was well presented. However, there are important issues that would be considered before to accept the paper for the publication.

1. The statistical analysis section is very lacking in terms of important methodological details. The machine learning methods used have never been mentioned. Moreover, the choice of these models should be motivated and discussed like in [1]. Also the evaluation models performance methods should be included in this section.
2. An internal validation study would be necessary to confirm that "The results indicate an improvement in predictive performance with the use of transfer learning in this population". Authors can refer to [2] for this request.
3. The bibliography could be integrated in order to indicate the limitations of this approach and the direction of future researches.

Minor issues

The labels of the variable could be better shown and explained in each table and figure.

References

[1] Di Nunno, Vincenzo, et al. "Machine learning in neuro-oncology: Toward novel development fields." *Journal of Neuro-Oncology* 159.2 (2022): 333-346.

[2] Santagata, Sara, et al. "KIR2DL2/DL3+ NKs and Helios+ Tregs in peripheral blood predict nivolumab response in patients with metastatic renal cell cancer." *Clinical Cancer Research* (2024): OF1-OF13.

Q 2 Please highlight the limitations and strengths.

No answer given.

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

No answer given.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

No answer given.

Q 5 Are the keywords appropriate?

No answer given.

Q 6 Is the English language of sufficient quality?

No answer given.

Q 7 Is the quality of the figures and tables satisfactory?

No answer given.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

No answer given.

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Major revisions.