Subject: Article Submission - How to select predictive models for decision-making or causal inference

Dear Editors of BMC Medical Informatics and Decision Making,

Please find our submission on causal model selection for predictive models in medicine for consideration in " BMC Medical Informatics and Decision Making ", as a research article for the collection on Counterfactual Prediction models. This article addresses a crucial and often overlooked aspect of the application of machine learning models for medical decision-making: for a given potential intervention, the model should be evaluated in how well it captures the treatment effect, which must borrow tools from causal inference.

The manuscript is written in a didactic way, provides theoretical framing of the problem and a thorough empirical evaluation which leads to clear recommendations for causal evaluation of predictive models.

We confirm that this work is original and has not been previously published or under consideration for publication elsewhere.

Thank you for considering this submission. We are confident that the article will make a significant contribution to the field and spark better evaluation in the context of predictive models in medicine.

Yours sincerely,

Matthieu Doutreligne and Gaël Varoquaux