February 2021

Dear Sir or Madam,

We would like to submit an original research article entitled “Machine learning model to predict allocation of patients with chronic back pain for integrated practice units in a system of value based health care” for consideration by The Lancet Digital Health. We confirm that this work is original and has not been published elsewhere, nor it is currently under consideration for publication elsewhere.

In the present work, we used data from six different questionnaires filled by patients, which asses the influence of several characteristics in relation to the chronic back pain, spinal pain and leg pain. The questions are of clinical, life quality and socioeconomic nature, those which allows to determine the most correlated ones and consequently select the best questions to further build a machine learning model to classify patients regarding the presence or not of, mainly, the chronic back pain. This approach is a potential one to assist in the patient screening and allocation process, therefore, is also part of the Value Based Health Care scope.

We here choose The Lancet Digital Health to submit our article, since the paper is focused on subjects regarding artificial intelligence and machine learning technologies in healthcare, furthermore, the screening and allocation process offers the possibility for telemedicine and virtual healthcare to be applied.

We know of no conflicts of interest associated with this publication, and there has been no significant financial support that could have impacted its results. As corresponding author, I confirm that the manuscript has been read and approved for submission by all the named authors.

Please address all the correspondence concerning this manuscript to me at vitorpbarbosa@ipt.br.

Thank you for your consideration of this manuscript.

Sincerely,

Vitor Barbosa