

RESEARCH AREA:

HEALTH

TITLE: Designing and development of machine learning approaches for the early-stage prediction of complications and risk stratification of COVID 19 Intensive Care Units (ICUs).

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Research activity description: The data stored in Electronci Health record can be analyzed through ML algorithms to discover complex patterns and set-up powerful ML models that can be integrated into a Clinical Decision Support System to predict the pathological risk condition related to COVID-19. However, managing and modeling this amount of information may lead to several challenges such as overfitting, model interpretability, sparse observation over time and the natural unbalance of the predictive task. Starting from these motivations, our aim is to design and develop machine learning methodologies for predicting the risk profiles associated with different diseases. The focus will be on how the proposed methodologies are extended and applied to predict risk stratification of COVID 19 patients in Intensive Care Units (ICUs).

Link: https://sites.google.com/view/risc-19-icu

Collaborators: RISC-19-ICU board Dr. M. P. Hilty, P. D. Wendel Garcia, MSc, Prof. Dr. R. Schuepbach, Dr. J. Montomoli, Dr. Ph. Guerci, Prof. Dr. T. Fumeaux. Bioengineering group, UNIVPM.



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