

## **Sepsis Detection with Machine Learning Models using blood test data.**

For this capstone project I'll be using the data set provided by the publishers of this paper: (<https://academic.oup.com/clinchem/article/70/3/506/7618099>)

The paper details an approach used by a German team to build a successful ML model for sepsis detection. As part of publishing the paper, they have also provided an R package allowing members of the public to recreate the data set they used to build the model.

The modeling approach used by the german team was based on ADABOOST with RUSBoost used to address class imbalance. I will not be repeating this work in the sense that I won't be using ADABOOST or RUSBoost.

Instead, I'll try to build on their work by using other modeling approaches. I'll be using their approach to the data for reference but not as a strict guide.

The goal will be to build a working model, ideally one that performs better than the one detailed in the paper.