

STROKE PREDICTION AFTER RECOVER FROM HEART DISEASES USING MACHINE LEARNING

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Stroke remains one of the leading causes of morbidity and mortality in the world and a cause of considerable economic burden. Early Prediction and Diagnosis are the keys to effective treatment and prevention. To achieve this machine learning techniques such as Decision Trees, Naïve Bayes, ANN, and Random Forest have been used to propose predictive models, based on worldwide stroke data. The study derives key predictors via analysing different risk factors from medical records, physical conditions and lab data. Our results show that Random Forest outperforms other algorithms, which adds to global efforts to predict stroke events. After analysing the different models, it was found that the Random Forest algorithm had the maximum accuracy at 99%. Most studies until now use lifestyle factors and radiological imaging results for stroke prediction, while this research also leverages lab test data for improved accuracy. The results show how machine learning can be applied to stroke diagnosis and risk prediction. This study, by accounting for various risk factors, fills a valuable gap, thus aiding in stroke prediction and allowing prompt medical treatment to be administered

