

## **ABSTRACT**

*Determining the correct dosage of medication for heart failure is a critical aspect of medical practice, as incorrect dosages can lead to reduced treatment effectiveness and dangerous side effects. This study aims to implement the Naive Bayes method to determine drug dosages based on disease history in heart failure patients. The Naive Bayes method was chosen for its ability to handle data with various independent variables and its efficiency in machine learning classification processes.*

*Machine learning in healthcare relies on the collection of patient data. By using systems designed to sort and categorize this data, machine learning algorithms can find patterns in the datasets that allow medical professionals to identify diseases and predict treatment outcomes. Advances in machine learning have achieved an understanding comparable to human knowledge with a high level of accuracy, matching that of expert professionals.*

*This study involves collecting patient data, including heart failure history and administered drug dosages. The data is converted into numerical form, with 1 and 0 indicating the presence or absence of disease history. After preprocessing, the Naive Bayes method is implemented to classify drug dosages into four classes, with each class evaluated for accuracy. Each class's specific characteristics ensure accurate data processing by machine learning. The final results show that Naive Bayes can classify drug dosages with satisfactory accuracy.*

**Keywords:** *Naive Bayes, Drug Dosage, Heart Failure, Machine Learning, Medical Data*