Design and Construction of Patient Triage Information and Classification System Using Decision Tree Algorithm

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ABSTRACT

Ibnu Abbas Clinic is a primary clinic, where a primary clinic is a health service unit that operates independently and is usually smaller than a hospital. This clinic usually provides basic medical services such as general practitioner consultations, simple physical examinations, initial diagnosis, minor treatment, and other health services that do not require hospital facilities or intensive care. However, the Ibnu Abbas clinic has limitations in handling patients in the emergency department (IGD) because the clinic facilities are inadequate, so the clinic must refer each ER patient to a hospital that has collaborated with the clinic. The next obstacle is that the clinic does not yet have a patient classification system in the ER so that it is not optimal in handling large amounts of patient data. Therefore, this study aims to create a triage classification system to make it easier to identify the priority of patients who will be referred to hospitals that have collaborated with the clinic. This study aims to create a triage classification system that makes it easier for admins to obtain patient priority information in monitoring priority patients who will be referred. The data currently used is data obtained from the manual registration system by the admin. The classification method used in this study is a decision tree by creating a decision tree that will process data that has been trained and tested to predict the results of patient data input by the admin. The results of the test classifying patient data based on the Emergency Severity index (ESI) when the accuracy was found to be 100% and the results of the blackbox test produced a test of 100%. So that the patient classification system using this decision tree can be used to help facilitate health workers in determining triage and ESI.

Keywords*: Emergency Department (IGD), Classification, Emergency Severity index (ESI), Decision Tree, Triage*