APPLICATION OF FORWARD CHAINING AND CERTAINTY FACTOR METHODS IN EXPERT SYSTEMS FOR EARLY DETECTION OF DEFECTS

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ABSTRACT

Dengue Hemorrhagic Fever (DHF) is a serious problem that is often found. Dengue fever is an acute viral infectious disease caused by the dengue virus which is characterized by a fever of 2-7 days accompanied by bleeding manifestations, a decrease in platelets and also accompanied by atypical symptoms. Dengue fever is a disease that can cause death in large numbers. Death is caused by several factors, one of which is the delay in the diagnosis process. These problems can be overcome by having a system that can detect dengue fever early to help detect the disease early. This study uses the forward chaining method and certainty factor, where later this expert system can assist an expert in early detection of dengue fever based on the symptoms experienced by the patient. The forward chaining method is collaborated with the certainty factor method to calculate the accuracy of the early detection of dengue fever. From testing the level of accuracy of the system, it is known that the level of accuracy is 95%. Expert system applications can be used to help detect dengue fever early.

Keywords: *Expert System, Dengue Fever, forward chaining, certainty factor*