

Design of Expert System for Diagnosis of Malaria Using VB 6.0

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Abstract

It's been found that missing medical data leads to mis-diagnosis, which in turn leads to inappropriate treatment and this usually triggers a chain reaction of repeat diagnosis, re-treatment, missed disease outbreak recognition and eventually high cost of medical care. This is worse when the mis-diagnosis is on endemic, infectious and preventable diseases that are leading causes of death in the developing countries, such as malaria. The aim of this study is to design an expert system for diagnosis of malaria using the Microsoft Visual Basic 6.0. When malaria is effectively diagnosed it leads to proper treatment and thus prevents the deaths resulting from its disease complex. This type of automation of medical diagnosis to improve the diagnosis of malaria and thus the overall outcome following appropriate treatment is mostly beneficial to the remote areas of developing countries, where the population is deprived of the facilities of having several medical experts to diagnose diseases. This expert system designed to diagnose malaria, called **MALARES**, uses the rule-based, forward-chaining and employed Visual Basic 6.0 programming language. Knowledge base is built by accumulating factual knowledge from literature, internet and medical experts of malaria. Different production rules were used for diagnosis based on Sign / Symptom / Investigating reports. The system provides a simple, interactive, graphical user interface with menu.

Keywords: Design, Expert systems, Medical Diagnosis, Malaria, Knowledgebase, MALARES, VB 6.0

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