Abstract

Diarrhea is a global problem with high rates of morbidity (pain) and mortality (death) for developing countries such as Indonesia. Based on Survei Kesehatan Rumah Tangga (SKRT), mortality studies, and Riset Kesehatan Dasar from year to year, diarrhea is the leading cause of death in toddlers in Indonesia. The main cause of death in toddlers due to diarrhea is providing the wrong first treatment of the type of diarrhea felt, both at home and in health facilities. Diarrhea disease in toddlers requires expeditious and appropriate treatment to avoid the worst impact of the disease is death. This study proposed two methods combined, namely Forward Chaining and Certainty Factor. Forward Chaining itself is used for regulatory search, and Certainty Factor is used to provide confidence from previous search results. The diarrhea diagnosis expert system is an Android-based application that can be easily accessed from parents' smartphones—conducted testing by comparing the results of the application with expert diagnoses. This application produces an average accuracy with 96.5% trust. This research expected that this expert system would be beneficial for people or parents away from health services and lack information about diarrhea whose negative impact of diarrheal disease can be minimized.