

Abstract

Medical Research Institute (MRI) is the pioneer institute for medical research and laboratory investigations in Sri Lanka. It consists of 12 departments and conducts more than 275 types investigations. Biochemistry department is one of the main departments at MRI which carries out about more than 70 types of investigations. It receives the samples from government hospitals, private hospitals and also from the public health sector from all over the country. Current work flow of the biochemistry department is a paper based manual system. Several issues such as delaying in reports, data duplication and transcription errors, difficulty in sample tracking, difficulty in tracking on past records, poor data collection and analysis have been identified in the prevailing system .

It has been identified that isolated data collection and multiple data storage are the main reasons for most of the above problems .Hence all data should be stored in a single place where everyone can access the data. Therefore it has been suggested to implement a Laboratory Information Management System where data is stored in a central server.

For the proposed LIMS, system requirements were gathered and analyzed from all the stakeholders namely Director MRI, Consultants, Medical Officers and Laboratory Technicians at the MRI, Patients and Medical Officers from several hospitals. Feasibility study was carried out in 3 open Source laboratory information systems namely Open MRS, Open Elis and Bika health. Open Elis is specially designed for HIV screening patients and Open MRS laboratory module was designed for a hospital laboratory. Both of the above systems have limited functionality and customization ability compared to system requirements.

Bika health system was proposed as all most all the requirements can be achieved from it. It is a web based system. This system was installed in MRI server and pilot implementation is carried out in the Biochemistry department in parallel with the existing manual system.

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