

## Abstract

**Introduction:** Outpatient department of Castle Street Hospital of Sri Lanka handles a huge set of information during the process of patient care. This was performed with a paper based record system which was found to be inefficient.

**Objective:** This project was intended to design, develop and implement a computer based information management system to replace the current paper based system.

**Method:** This is an interventional study with a component of descriptive cross-sectional study design. Designing of the system was based on the system requirement specification which was created by analysing data obtained from Focus Group Discussions, Key Informant Interviews, observations and needs analysis. Information Management System was mainly divided into numbers of modules, namely Electronic Patient Registration module, OPD module, Queue Management module, Laboratory module, OPD dispensary module and Radiology module. The system was developed in client server architecture using PHP as the server side scripting language, JavaScript as the client side scripting language and MySQL as the database management system.

Piloting phase started following the installation of network and hardware infrastructure. User training started and planned to continue throughout piloting. Complete implementation was planned to achieve after several iteration cycles.

**Results:** Requirement analysis revealed a lot of drawbacks in the paper based system and new health information system developed to overcome those factors.

**Conclusions:** Designing system requirement analysis(SRS) is the key to the development of the HIMS. Interoperability of the systems became necessary in health care practice and database compatibility and data exchange standards paramount in designing.

**Recommendations:** Following completion of piloting, implement the HIMS with full functionality and evaluation of system for further updates. The ultimate result of a well-implemented HIMS would be a collection of valuable data generated by patient encounters. Therefore, this system could be used as a research tool once adequate clinical information is collected in the future.