

Abstract

Background: The adoption of health information technology has become a recent trend in many healthcare institutions worldwide, and also in Sri Lanka. The Hospital Information Management System in the National Cancer Institute (Apeksha Hospital) of Sri Lanka, needs a data capturing tool to be used in the ward setting, to make the patient record keeping task more efficient and effective.

Objectives: This study aims to assess the suitability of a mobile electronic data capturing tool for the purpose of patient records keeping in the ward setting.

Methodology: This study was conducted with the aim of designing a mobile application for the patient records keeping and usability evaluation. User requirements were gathered through one-on-one interviews with the medical officers who work in the ward setting of the institution and past health records were also examined. A prototype of the mobile application was evaluated for usability and user acceptance at the end of the study, with a self-administered questionnaire given to the medical officers, which included the System Usability Scale and some additional queries.

Results: The weaknesses of the existing paper-based system were identified as misplacement and loss of patient records, illegibility, incomplete documentation, lack of uniformity, improper organization, difficulty in summarization and delays in sending investigation requests and receiving investigation reports. Familiarity and experience with the existing system were regarded as its strengths, which enabled the users to document faster and conveniently. The medical officers expected the proposed system to be easy to access, readily available, easy to document, to have error proofing functions, to have restricted access and use modern UI features. The developed prototype included all the data capturing and viewing interfaces, UI features and navigation between different interfaces of the application. It received a SUS score of 68.33 and overall user-friendliness was among the highest scored queries.

Conclusion: Use of a mobile application as a data capturing tool, for the purpose of patient record keeping is an acceptable solution which need more improvements, stakeholder involvement and change of attitudes.