

## Abstract

### **Background**

Electronic medical record systems are increasingly being implemented in hospital wards. Working in a ward setting requires mobility and continuous access to health information. Mobile devices have been used by ward staff to access the electronic medical record systems. Hospital Health Information Management System is a leading electronic medical record system in Sri Lanka. However, it is not rendered on mobile device screens in a usable manner.

### **Objective**

To design a user interface prototype for Hospital Health Information Management System, which could be usable through mobile devices.

### **Methods**

An iterative, User Centred-Design approach was employed to design the user interface, after understanding the users, work context and their tasks. User interface screens were designed conforming to the design principles, creating wireframes. User acceptance of the wireframe prototype was assessed by conducting semi-structured interviews with ward doctors and nurses of Lady Ridgeway Hospital for Children. The interview guide was based on Nielsen's usability heuristics.

### **Results**

The output of this project was an interactive high-fidelity wireframe prototype. Most of the interviewed doctors and nurses found the prototype user interface acceptable and easy to understand. Most participants could relate the functions shown on the prototype to their daily tasks. Doctors preferred using their personal phones in the ward during work while the nurses preferred to use hospital-provided tablets or laptops in the ward.

### **Conclusions**

Accessing health information systems while maintaining mobility in a ward is a challenge. Using mobile devices such as smartphones and tablets to access health information systems in the ward setting is a workable solution. However, it is paramount that the system is designed with a mobile device-friendly user interface for effective and efficient usage. This requirement should be a priority when developing electronic medical record systems for hospital wards.