

MOBILE PLATFORM: HEALTH MANAGEMENT APPLICATION DEVELOPMENT

Client Profile:

A Medical Device Company who markets a personal healthcare device to measure chronic condition levels seeking to develop a mobile phone application that can interface to the device and track/trend data

Technologies Used:

Use Case Analysis, Human Factors Engineering, Requirements Engineering, Java ME, Bluetooth interface technology, knowledge of Medical Device functionality and interfaces, FDA Application Development /V and V Guidelines to support submission of 510K and HP Mercury Quality Center.

Project Summary:

The project consisted of the development of a Health Management Application that will run on a mobile phone platform and interface wirelessly (Bluetooth) to personal medical devices collecting and displaying health management data for users. The Health Management Application is a comprehensive clinical data management system allowing users of the medical device secure access to real-time information, trends (with graphical display) and system level alerts, thereby maximizing efficiencies in the delivery of optimal health care. Created in close collaboration with the medical device client, the result is a user-friendly, customizable interface that allows interaction with the system through point and click and free text entry. The system includes automatic upload of critical medical data and device alarms/alerts so that the user is immediately notified of imminent health situations. It provides users with intuitive usability at varying levels of functionality, based on the user's needs and technical comfort. Users are able to set target alerts for medical parameters and automatically send out SMS messages to healthcare providers or other contacts when parameters are in an alert zone. The application also has a web-enabled interface that supports HIPAA compliant data sharing with healthcare providers. Through the Health Management Application, users have a secure, effective means of data management. Increased awareness of critical factors can lower a patient's risk of complications in the management of chronic conditions.