

Strategies for Managing Mobile Devices for Use by Hospitalized Inpatients

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Abstract

Despite the potential advantages, implementation of mobile devices and ongoing management pose challenges in the hospital environment. Our team implemented the PROSPECT (Promoting Respect and Ongoing Safety through Patient-centeredness, Engagement, Communication and Technology) project at Brigham and Women's Hospital. The goal of PROSPECT is to transform the hospital environment by providing a suite of e-tools to facilitate teamwork among nurses, physicians, and patients and to engage patients and care partners in their plan of care. In this poster, we describe the device-related decisions and challenges we faced. We relate the strategies that we used for managing mobile devices and lessons learned based on our experiences.

Keywords: device management, communication, health information technology, patient engagement, nursing informatics.

Introduction/Background

Many consumers are using technology to manage health and wellness, and there is a growing recognition of the need for patient engagement in healthcare. A key goal of meaningful use is to make consumers full partners in their care by providing e-health tools that increase access to health information, support activation (e.g., active involvement in their treatment plan), and that help consumers to gain control over their health and wellbeing.¹ There are limited examples in the literature that describe strategies and e-health tools to provide patients with access to their health information in hospital or inpatient settings. We partnered with our medical librarian to research strategies for ongoing operation and maintenance of bedside devices used by patients in hospital settings and found no peer reviewed literature on this topic. After implementing bedside mobile tablets at Brigham and Women's Hospital, we have learned some important lessons. In this poster, we focus on strategies for implementing and managing mobile devices in hospitals and lessons learned based on our experiences from the PROSPECT project.

Methods

We used a socio-technical systems approach to identify device requirements and to identify strategies for ongoing device management. We conducted workflow observations, interviews, and focus groups of care team members, patients, and care partners. Based on our evolving set of requirements and the concerns expressed by clinicians and patients, we scheduled meetings with hospital, health information management, information systems and infection control leadership to address the key questions that arose. We developed a list of device requirements that we implemented.

Results

We identified challenges in terms of device and accessory selection, user access, integration, information and device security, infection control, and ongoing operation and maintenance in the hospital environment. Despite the advantages, the process of implementing and managing mobile devices in the hospital setting poses multiple challenges. Strategies were identified to address each of these challenges and implemented before project go-live.

Discussion/Conclusion

Using a socio-technical approach, we identified a host of issues related to accessory selection, user access, integration, information and device security, infection control, ongoing operation and maintenance. Overall, the socio-technical approach has been useful for identifying and addressing device-related issues and concerns with stakeholders as part of the project planning process.

¹ CMS. CMS EHR Meaningful Use Overview. 2012; http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Meaningful_Use.html. Accessed March 6, 2015.