**MyICU: Introducing a Web-Based Patient Engagement Tool to the ICU Setting**

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**ABSTRACT**

**The Problem**

Engaging patients and families in care can lead to improved quality, safety, and experience of care, as well as better outcomes. MyICU, a web-based application, was developed at BIDMC to foster engagement and enhance communication between patients, families, and their care teams in order to prevent harm and improve care. Utilizing a tool such as MyICU in the critical care setting is a novel and exciting approach to patient engagement that is not without many potential challenges.

**Aim/Goal**

To pilot MyICU in MICU 6 and TSICU to learn how a patient engagement application can be utilized in an ICU setting.

**INTERVENTIONS**

- Usability testing of application with patients and staff
- Development of written and video materials for education, training, and marketing
- Creation of user agreement to meet privacy and security standards
- Staff engagement campaign to identify MICU 6 and TSICU leadership and champions
- Creation of MyICU administrative team; responsibilities included:
  - Clinician in-services
  - Patient enrollment, orientation to application
  - On-site end-user support, Monday - Saturday
  - iPad equipment management and IT troubleshooting
  - Data management: REDCap collection tool developed and utilized for tracking enrollment data
  - Data collection of end-user feedback via surveys and in-person interviews with patients/families and staff

**RESULTS**

**User Feedback**

- “It was our first time in this hospital so it was good to know about things such as the visiting hours”
- “I had a patient who was very confused yesterday and kept asking if he was at the fire station. It didn’t make much sense to me until I read in his patient profile in MyICU that he was a fire chief for 20 years.”
- “Since I’m the only one in Boston, it was good for my brother and sister to be able to log in from home, since they can’t always get in to Boston every day.”
- “It was nice to add things about my mother, about who she is, so the team has some common ground knowing about her.”

**Progress To Date**

- A total of 48 patients/families were enrolled between October 2015 and January 2016
- Enrollment and uptake was inconsistent among patient/family users and clinical staff due to technical and workflow issues
- Scheduled upgrade to BIDMC guest network was completed on an accelerated timeline to improve connectivity for users
- Patient/family and clinician feedback results included:
  - Users liked many features of MyICU
  - Clinicians desired easier access to MyICU and better integration with other clinical systems
  - Patients would prefer more frequent updates

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**DISCUSSION**

**Lessons Learned**
- There are numerous anticipated and unanticipated technical and operational issues associated with the introduction of a patient-facing application in the ICU setting.
- Managing iPads was resource-intensive and required dedicated staff time during the roll-out.
- Adjusting clinician workflow within a busy clinical setting with many other competing IT systems was a significant challenge.

**Next Steps**
- Complete collecting and analyzing end-user feedback.
- Redesign MyICU application based on feedback and lessons learned.
- Reintroduce MyICU Version 2 in Spring of 2016 in two ICUs with eventual spread to all remaining ICUs by December 2016.
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