

MyICU: An Electronic Patient Engagement Portal for ICU Patients and Families

**Lynn Mackinson, RN, MSN, CCRN; Juliann Corey, RN, MSN;
Veronica Kelly, RN, BSN**

Beth Israel Deaconess Medical Center, Boston, MA

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Introduction/Background: The ICU environment can be overwhelming to patients and families, leaving them vulnerable to physical and psychological harm. Up to 35% of ICU patients have symptoms of post-traumatic stress disorder after their ICU experience.¹ Psychological trauma and the potential for physical harm can be mitigated by communication-focused, patient-centered care that promotes patient and family engagement and honors individuals' values and priorities. We intend to implement *MyICU*, an electronic patient portal to foster meaningful engagement between patients, families, and providers, in order to improve physical and emotional outcomes of an ICU stay.

Process: Team members conducted 2600 surveys and 3 focus groups with patients, families, and providers to understand stakeholder interest in an electronic communication portal. Our multidisciplinary team, including members from BIDMC, Intermountain Health, Aptima, Inc., and the BIDMC Patient Family Advisory Council developed the *MyICU* application content over 15 months in an iterative process. Human factors experts from Aptima, Inc. are providing ongoing software development and testing. Our efforts to attain accurate interface and data feeds between *MyICU* and other interacting systems continue. We worked to achieve appropriate privacy and security safeguards. Patient instructional videos are in development. Plans are in progress to implement strategies for end-user orientation, pilot testing, and rollout. A tool to measure the impact of *MyICU* on patient/family satisfaction, communication and psychological harm is in development.

Results: Survey participants confirmed a strong interest in utilizing a portal for daily medical updates, access to medical information, educational resources, information about providers, and sharing information about themselves with their care team. ICU providers endorsed the use of a portal to enhance bi-directional patient/family communication with the care team, to hear questions and concerns, to provide educational materials, and to get to know patients better.

Version 1 of *MyICU* is near completion and will be ready for pilot testing in the spring, 2015 in one surgical and one medical ICU. Features of the portal include a daily plan of care, "Get to Know Me" information for patients and families to share, an ICU journal, a family meeting scheduler, and mechanisms to invite family participation in care and report information and concerns. Patients and families can access educational materials about tests, procedures, conditions and ICU equipment, and link to professional websites with patient-focused content.

Discussion/Conclusion: End-user feedback throughout the development process has been essential to building the *MyICU* portal. Input from our Patient Family Advisory Council and family surveys has helped us prioritize our design elements. Clinical nurses on the team have focused on designing the tool to minimize disruption to the daily workflow of front-line staff. We anticipate that our attention to engaging all key stakeholders will enhance its usability and achieve better buy-in as we begin to roll out *MyICU* to patients and families.

References

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