

Title: UTILIZATION OF A SMART PHONE APPLICATION TO IMPROVE COMMUNICATION WITHIN THE ENHANCED RECOVERY TEAM

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Background

Emerging technologies will change the way we communicate and there is increasing interest in, and use of communication technologies to support healthcare providers. The importance of communication to all team members in an Enhanced Recovery program has been researched extensively. Our 537 bed teaching hospital has a general surgical residency program which includes bi-monthly rotations to different surgical specialties including Colorectal. The Colorectal Enhanced Recovery Program (ERP) first started in 2010. The program is composed of a multidisciplinary team that includes surgeons, residents, case management, ERP nurse educators, surgical nurses, pharmacists, physical therapy, home health nursing, nutritionists, anesthesiologists, and nursing leadership. Our program was implemented to better align care coordination and communication across the surgical continuum while reducing variability in care, the overall costs of care and creating best patient centered colorectal surgical care experience possible. The end goal of our program was to create a patient centric experience through developing optimal pathways for perioperative care by means of literature review and adaptation of treatments to give the best fit for patient's perioperative colorectal surgery. Any discontinuity across the whole pathway would jeopardize the desired outcome of a smoother journey, better outcome and improved experience for the patient and their family.

As our program has evolved, many forms of communication with residents have been trialed to enhance information dissemination, including written cheat sheets, ERP notebook and Interdisciplinary rounds. In exploring other communication possibilities, the use of the smartphone application was investigated. The average age of a surgical resident is 26.5 years; millennials interact with their smartphones more than anything or anyone else. Research has shown that the smartphone is one of the fastest growing sectors in the technology industry, and its impact in medicine has already captured.

Methods

We are conducting a quality improvement project to promote surgery resident adherence to established enhanced recovery pathways through a combination of provider education and use of a novel technology platform. This platform elicits Perioperative clinical pathways, and presents information with algorithm-driven recommendations.

In exploring different smart phone application developers, most were limited by expense. In networking within our institution, a free web-based application (app) was identified that could be utilized to meet the needs of our program. The objective, was to develop an easy to navigate, secure, HIPPA compliant app that could house all of our Enhanced Recovery information and resources.

Results

In 2017, a product was developed that includes all components of our Enhanced Recovery program on an easy to read technology board. The developers of the board are administrators, they have the ability to make changes to the site and extend invitations to join the board. When the surgical resident rotates to the colorectal service, they receive an invitation to join. The site is password protected, and can be accessed by invitation only. The app can be downloaded to a smartphone or accessed on a traditional computer. Currently this app supports two service lines with endless potential. As the residents complete the rotation, they will be surveyed. The survey will include questions about content, ease of use and convenience. An additional benefit to the development of this app is that the entire ERP team has a single source to house all of programs information.

Conclusion

Technology has transformed the way we communicate. This smartphone app will be used to compliment not replace our current practice. We feel that this technology will increase speed and convenience of accessing the necessary information to care for patients.