Introduction

On April 2, 2016, all inpatient units at Massachusetts General Hospital (MGH) implemented Partners eCare, the electronic medical record system that will eventually integrate all health information across the Partners Healthcare System by mid-2017. Partners Healthcare, the network founded by the Brigham and Women’s Hospital (BWH) and MGH, now consists of the two founding academic medical centers, primary care and specialty physicians, community hospitals, specialty facilities, community health centers, and other health-related entities. eCare is based on an Epic platform and was developed by input from hundreds of staff from all disciplines and role groups from each of the Partners entities. Its overall goal is to provide better, safer, more coordinated, and seamless care across the Partners network. The phrase, “one patient, one record, one team, one Partners statement” has been frequently used to describe the intent of this electronic medical record system.

The roll-out of Partners eCare was systematically planned and took place in a phased implementation that consisted of two major components: the revenue cycle/administrative aspect and the clinical aspect. Each entity was able to determine if the revenue cycle was implemented first and separate from the clinical aspect or if both were done at the same time. For example, the revenue cycle piece of the system went live at Newton-Wellesley Hospital in late January 2014 but not until July 12, 2014 at MGH. BWH combined the revenue cycle and clinical implementation in late May 2015. MGH staggered implementation of the clinical component with a December 10, 2015 phase in of the system in selected Ambulatory clinics and hospital-wide roll-out on April 2, 2016. All lessons learned from these earlier implementations guided the work and preparations for the April 2 go-live in the inpatient arena at MGH.

The education and preparation for implementation of eCare was based on a consistent set of classes and go-live readiness tools that were used at all sites. Each site, however, was able to further customize training based on the needs of individual role groups, the learning style of their staffs and unit- and service-specific workflows.

Nurse Leader Guidance through Planned Change

In her role as Director of Nursing & Patient Care Services (N&PCS) Informatics at MGH, Annabaker Garber, RN, PhD, was named the Site Champion for Nursing in the Partners eCare Organizational chart (attachment TL5b.a). As the Site Champion for Nursing, she was responsible for determining how to prepare nurses for the transition to eCare
and how to support them through the implementation process. She was both visionary and strategic as she developed a plan for doing so.

Although she realized the importance of education and training, Garber envisioned a much broader preparation process. At the center of her vision was the core belief that nurses should learn from nurses and this was a key factor in her planning. She also believed that clinical nurses should be involved in the development of the education and training plan and be empowered in their decision making. To demonstrate this belief, Garber included both clinical nurses and leadership in the planning process. She articulated a clear strategic plan, so much so that when a career advancement opportunity resulted in her leaving MGH on December 18, 2015, her plan continued without interruption. Van Hardison, PhD, RN-BC, CENP, FHIMSS, Garber’s interim successor, arrived at MGH in early December 2015. Garber and Hardison reviewed her inspired, well thought out and partially implemented plan which Hardison utilized and built upon in the months that followed. Through this plan, Garber and Hardison employed a number of strategies to prepare nurses and other healthcare team members for a smooth transition to eCare. A description of four key strategies is showcased below.

**Strategy 1: Development of eBridge to Prepare for eCare**

When Garber arrived at MGH in June of 2013, nursing progress notes were still being documented on paper. She envisioned a smoother transition to eCare would take place if nurses were comfortable with electronic documentation prior to eCare implementation. Toward this end, she worked with N&PCS Informatics to create eBridge, which served as a foundational step or a “bridge” to prepare clinicians for eCare. Jeanette Ives Erickson, RN, DNP, FAAN, NEA-BC, Senior Vice President for Nursing & Patient Care Services and Chief Nurse, wrote a Q&A column in the January 9, 2014 issue of *Caring Headlines* that summarized eBridge. An article authored by Garber, published in the January 22, 2015 edition of *Caring Headlines*, showcased the role that eBridge would play in the preparation for eCare (attachment TL5b.b). eBridge required nurses to write electronic progress notes, and it also required staff and leadership to begin to think about how the nursing progress note would evolve to a synthesized note based on a plan of care. This became an initial step in identifying and addressing the many workflow changes that would result from the change to eCare. eBridge was live for the majority of nursing units by April 2014, so nurses had the opportunity to work in an electronic progress note documentation system for two full years before the eCare go-live.

Additional operational benefits of eBridge can be summarized as follows:

- Demonstrated the value of direct caregivers being involved from the beginning and having them work with leadership to create buy-in through direct involvement
- Demonstrated the benefit of training readiness checklists that were completed by every nurse prior to go-live with the assistance of a Super User (SU)
- Developed a unit-based SU model to provide support during and after go-live
All of these interventions were later replicated for eCare preparation and training.

**Strategy 2: Development of new and specialized roles for training and support**

For eBridge, Garber operationalized her belief that clinicians should learn from clinicians through the establishment of a Super-User (SU) model for clinical staff to educate their peers about the new process. It was intended that the work of eBridge would provide a foundation for eCare, but given that eCare was a much bigger initiative, the plan was augmented accordingly. This adjustment began with Garber cultivating a team that included two new specialized roles: Credentialed Trainers and Informatics Analysts, and an adaptation of the unit-based SU role that proved to be extremely helpful during the implementation of eBridge. These roles operationalized Garber's belief that nurses should educate other nurses. Attachment TL5b.c highlights the important roles of Credentialed Trainers and Super Users. It includes an example of Garber's communication with Nursing Directors, Clinical Nurse Specialists/Nursing Practice Specialists and the N&PCS Executive Team in regard to the clinical nurses that they had identified for the credentialled trainer role. Additionally, in an article in the December 17, 2015 edition of *Caring Headlines*, Erickson reiterated the benefits of utilizing MGH staff as credentialed trainers and noted that staff found it helpful to be trained by those familiar with their practice setting. Lastly, examples of eCare class rosters are provided which demonstrate that MGH clinical nurses led classes as credentialed trainers and provided elbow support as super users.

**Credentialed Trainers**

In most institutions that make the transition to an Epic-based electronic health record, the training of staff is done by Epic employees called Credentialed Trainers. Such staff has an in-depth knowledge of how the Epic platform works, a general knowledge of the associated software, and teaches all classes for staff of all role groups. However, based on Garber’s belief that clinicians should learn from their peers, MGH made the decision to utilize MGH staff to carry out this vital role. For nursing, this meant that Credentialed Trainers were MGH clinical nurses who received in-depth training about how the Epic platform works and the content and functionality of eCare. They received this training between November 16 and December 30, 2015 and were then responsible for teaching all didactic classes for MGH nurses, which was a minimum of 16 hours to cover the basics. For nurses in specialty units, additional training was required.

**Informatics Analysts**

The Informatics Analyst (IA) role, described in SE11b, was unique to MGH. It was a role specifically designated for expert clinicians to work half-time in N&PCS Informatics and to continue half-time in their clinical setting. This was purposeful to provide the IAs with a uniquely valuable perspective and prepare them to see eCare through both an informatics and clinical lens. There were 25 IA positions of which 21 were filled by clinical nurses. The remaining positions included a respiratory therapist, a dietician, and
two physical therapists, which was reflective of the collaborative and interdisciplinary teamwork that MGH nurses engage in every day. The IAs began orienting to their new role in January 2015.

The IA was ultimately considered the role that had the greatest influence on the education and preparation of staff. Garber recognized that in order for the group to be successful, they had to be a cohesive and dynamic team. She provided opportunities for each IA to function at their full potential by including personality and strength assessments and team building exercises into their orientation. She also offered training in negotiation skills, customer service, and conflict mitigation skills. This was based on Garber’s belief that the IA role would need to be influential, demonstrate strong customer relations, and be instrumental in facilitating the preparation and support at eCare go-live. Garber required IAs to shadow frontline care givers on the units/departments that they covered to develop an understanding of each area’s unique workflows and to establish trusting relationships with the unit leaders and staff. This also enabled the IAs to be trusted to train SUs and be viewed as an expert resource. The IA team also supported the unit-based Clinical Nurse Specialists and Nursing Practice Specialists.

In May and June of 2015, the IA team participated in the BWH eCare go-live by acting as SUs. This opportunity provided them with invaluable first-hand experience with a live eCare environment, as well as the realities of launching something with such significant and far-reaching impact. It also allowed them to better understand the SU role, which was very helpful as they developed this role group at MGH. SUs were unit-based staff responsible for providing immediate at-the-elbow support during the implementation of eCare. They received in-depth training about eCare content and workflows related to their unit and were required to serve as a proctor for a full complement of basic eCare classes.

During July and August of 2015, the IAs attended workflow review sessions with unit clinical nurses and leadership and reviewed training materials for the didactic classes. In September of 2015, they embarked on three months of work that was primarily focused on the education and development of SUs. The IAs developed and implemented intensive sessions for SUs about the workflows specific to their units that included hands-on experience with eCare.

This synergistic work between IAs and SUs continued over the January through March of 2016 timeframe, now under the direction of Hardison. IAs developed several resources, including skills checklists and talking points, for the SUs to use when providing at-the-elbow support to their clinical nurses peers during the implementation phase.

By the time of go-live on April 2, 2016, the IA team had spent more than a year immersed in eCare planning. They knew the clinical workflows in the areas that they were responsible for and had expert knowledge of Epic and eCare. They played a major role in the development of SUs, which was considered key to the successful
launch of eCare. The synergistic relationship between the IAs and SUs, in addition to Hardison’s support of Garber’s vision and plan, allowed Garber’s vision to be realized. The IAs responded to calls in the Support Coordination Center, rounded on their units, continued to mentor SUs, and responded to questions on the units. They also participated in, and sometimes led, the SU huddles that were a critical aspect of communicating issues and changes during the immediate post go-live period.

Super Users

As previously noted, a major success of eBridge was the SU role that provided at-the-elbow, peer-to-peer support during and after go-live. This model of support was developed by Garber to operationalize her belief that staff should learn from their peers and to test the model for eCare. She recognized that eCare was a more comprehensive and complex endeavor and would require the SU role to be enhanced. Garber, in collaboration with the N&PCS Informatics Team, determined that each unit would need several SUs who would receive in-depth training. It was decided that, in addition to the basic training and specialty training specific to their units, SUs would also have training for how to provide support and feedback. Additionally, they would proctor a full set of basic eCare education classes for reinforcement of content and to be exposed to questions about eCare content and workflow.

Strategy 3: Development of Resources

Garber, Hardison, and the N&PCS Informatics team developed a robust array of references and resources, and examples of the three primary communication strategies for information related to eCare are found in attachment TL5b.d:

- **Caring Headlines**, a bi-monthly communication produced by N&PCS, which is considered a source of information about important initiatives and changes. The March 17, 2016 edition contained an example of such a communication that provided staff with many links to both Partners and MGH eCare resources.
- Emails and other broad communications from key leaders, such as Hardison, that shared information and a link to the on-line resources.
- A dedicated link on the Excellence Every Day Portal, a N&PCS Intranet resource, was developed as a mechanism for nurses to easily find key information related to the eCare implementation.

Strategy 4: Training

Garber, Hardison, and the N&PCS Informatics Team developed a basic education curriculum that was required for all nurses. This training consisted of 16 hours of in-person classes, divided into four sessions and that included all aspects of navigating the eCare system and performing essential documentation functions. Between January 4, 2016 and April 1, 2016, 4,323 nurses were trained by MGH nurses and then supported by their clinical colleagues during and after go-live.
Garber’s vision for the planned change required by eCare implementation, which was embraced and continued by Hardison, was operationalized through eBridge, new and specialized roles, and numerous on-line and in-person training resources and educational offerings. Each strategy guided nurses through the implementation of eCare, which was a significant planned change. The impact of this approach was lauded by many members of the Epic staff that was on-site at MGH during the immediate pre- and post-implementation period. These individuals have witnessed hundreds of Epic launches, yet what they witnessed at MGH was noted to be exceptional. An Epic technician indicated that the preparation at MGH was the best ever observed. Perhaps the ultimate praise came from Emily Barey, RN, MSN, Director of Informatics at Epic, who told Erickson: “Your expertise is coming through with every encounter.” These comments were shared with all staff in an email from Erickson shortly after go-live (attachment TL5b.e).