

MyCareCompass



Bridging the gap in patient education with digital communication

The dissemination of patient education is a universal challenge in cancer care. At a time when patients feel shocked, overwhelmed, and emotional in the face of a diagnosis, they often do not retain the necessary clinical information that their care providers are communicating to them.

When patients are diagnosed with cancer, a wide range of emotions begin to surface.¹ Understanding what chemotherapy is, how it works, and what to expect during administration has been shown to lessen patients' fears and anxieties.² However, patients often report difficulty obtaining reliable information about chemotherapy.³ Though patients who receive chemotherapy education experience more successful outcomes compared to patients who have not been educated,⁴ patients are faced with many obstacles to oncology education, including access to and ease of communicating with providers, information overload, and struggles with information retention.⁵ Experts and leaders in the industry continue to study how clinicians and healthcare organizations can break down these barriers for patients.

Kettering Health Network in Dayton, Ohio, endeavored to bridge that gap for patients by launching MyCareCompass, a partnership with Arches Technology, to deliver the right information, the right amount of information, to the right patient at the right time. MyCareCompass is a Health Insurance Portability and Accountability Act (HIPAA)-compliant digital oncology education program for patients undergoing infusion chemotherapy. The program's key strategy is to deploy communication to patients at crucial and precise moments in their treatment process. This

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is done in the form of emails or SMS (short message services or texts) containing educational videos that explain treatment protocol, what to expect, and how to prepare for upcoming appointments and procedures. The strategy is supported by research, because studies have shown that video supplementation is beneficial for patients undergoing chemotherapy in reducing anxiety and increasing retention.⁶ This digital communication is intended to supplement the clinical information patients receive at point of care to help them feel more empowered, prepared, and at ease. For Kettering Health Network, the result has been increased

patient satisfaction, improved clinical efficiency, and a reduction in healthcare costs.

Developing Effective Solutions

In 2015 Arches Technology approached Elizabeth Koelker, executive director of the oncology service line for Kettering Health Network, to discuss how the network connects patients with appropriate treatment information and how it monitors the effectiveness of that communication. The conclusion was that effective cancer education is an industry-wide challenge, and leaders need to find more effective solutions for educating patients. Kettering Health Network and Arches Technology decided to partner on developing a solution and, over the following months, implemented MyCareCompass.

The opportunity to create a digital oncology education program with Arches Technology presented itself while Kettering Cancer Care was in the middle of building a brand-new cancer center, centralizing operations, and implementing new software for their electronic health record (EHR). The first step to creating a successful partnership was to determine whether the idea was even within the capabilities of the network's new EHR. Information technology experts from Arches flew in to meet with information systems experts at Kettering Health Network and spent significant time workshopping the project together. Once the initiative was deemed feasible, the next step was to present the project proposal to physicians.

Prior to the implementation of MyCareCompass, Kettering Cancer Care employed a variety of concurrent education tactics. Some of these included handouts and pamphlets provided by nursing staff, binders such as the "Cancer 101" binder, and care kits ordered from manufacturer websites and delivered to the patient's home. Patients responded well to these tactics; however, there are gaps in learning styles when employing these tactics alone. Many of these strategies also require heavy manual implementation from nurses and other caregivers. With the implementation of a digital oncology education program, these strategies, at present, are still in use as a supplement to MyCareCompass and to account for multiple learning styles and circumstances.

Patients have more educational needs and questions than can be met by just one individual or one care team. In the past, for example, Kettering Cancer Care received more than 10,000 phone calls monthly regarding questions on treatment, concerns, new symptoms, and what to expect. To address this challenge, Arches Technology created a sample video to show to physicians to demonstrate how a digital oncology education program can bridge an important gap in patient education.

Educational videos can help patients feel more informed about something that, though routine for physicians, is a first-time experience for the patient. For example, getting port placement is a common procedure in oncology treatment. It is so common that it can be easy for clinicians to forget that, for each individual patient with cancer, getting a port placed is a new and scary, unexpected procedure. Arches created an initial video to address port placements. The video was about 90 seconds long, falling within the targeted length of communication that Arches deter-

mined was optimal for retention of information. Physicians were shown the port placement video and had an opportunity to give feedback, ask questions, and voice concerns. After watching the sample video, physicians were immediately able to see the value of how a digital oncology education program would bridge the informational gap.

The budget for the new platform, however, did not fall under any current allocation. It was a new initiative not accounted for under any previous business model. The oncology service line submitted a proposal to Kettering Medical Center Foundation, asking for three years of funding for the project. Leaders knew that the development process would involve multiple cycles of designing, testing, and revising and that the outcomes of the digital oncology education program could not be accurately measured in one year's time. The foundation raised the necessary funds for Kettering Cancer Care, enabling the service line to move forward on the Arches Technology partnership.

Targeted Communication is Key

MyCareCompass is directly integrated into Epic, the network's EHR. Elizabeth Cernevicus, senior project manager in the Center for Improvement for Kettering Health Network Information Systems, explains that the product is designed to trigger targeted communication based on appointment information in Epic. Through a HIPAA-compliant secure portal, patient information is sent to Arches. The patient's information is then filtered based on visit type to determine what set of digital communication he or she should receive.

"Several targeted videos address different points along the cancer patient's journey. There's a video regarding the initial consultation, one for what to expect in a port placement, communication prior to a patient's first chemotherapy visit, then follow-up communication at subsequent points after the first visit," explains Cernevicus. "Patient data is fully secure through Arches HITECH [The Health Information Technology for Economic and Clinical Health Act] certification and stored in the cloud. All transactions between Epic, the scheduling interface, and MyCareCompass have been highly vetted and thoroughly tested to ensure that all communication is specific to the right patient at the right time." The targeted videos are activated automatically upon clicking the link provided to the patient in an email or text to reduce confusion and disengagement. At present, the digital oncology education program will only deploy a set of videos one time, and Kettering Cancer Care continues to supply patient education in other forms, such as handouts and pamphlets, so that all patients receive the necessary information.

The first implementation of MyCareCompass took a number of months. A robust team formed of information systems experts from both Kettering Health Network and Arches Technology, clinical experts from Kettering Cancer Care, and Epic experts put together a training and communication plan to send out in an initial testing phase.

The group identified a need to make some changes in Epic in order to streamline information. For example, it was vital to

differentiate between consults for patients with diagnosed or suspected cancer versus patients having hematology consults who should not receive MyCareCompass communications. When it came to port placements, further filtering of information was needed to determine which specific patients were having the procedure for the intent of administering chemotherapy.

This thorough testing period involved a number of manual checks and balances. The team implemented a soft launch that involved manual verification of every test transaction to ensure that the appropriate communication would go to the appropriate patients. Initially, implementation included only patients undergoing chemotherapy; a second implementation later in the year included patients receiving immunotherapy.

The most time-consuming phase of developing the digital oncology education program was the creation of educational materials. This content was reviewed by oncologists, chemotherapy nurses, medical assistants, patients, and caregivers to ensure that all communication was accurate and relevant. Each video was edited down to include only the most important, relevant, bite-sized information that patients would need at that specific moment.

Offering the Very Best in Cancer Care

Kettering Cancer Care leaders regularly hear from patients that the digital oncology education program has helped to ease their anxieties and clarify concerns. Elizabeth LaForce, BS, PMP, manager of oncology access for Kettering Cancer Care, has heard directly from patients that communication is accessible, convenient, and helpful. As one patient shared, “The port placement video really helped clarify everything” and that it made me feel more prepared for the procedure.

In the first eight weeks of deployment, 1,057 patients enrolled in MyCareCompass. The average email open rate was 45.86 percent versus Arches’ normative average of 28 percent. Click-through rates for the emails were at 20 percent—much higher than the normative rate of 7.5 percent. “Arches Technology’s intuitive use of web-based technologies to reach our patients is deeply aligned with Kettering Health Network’s spirit of innovation,” says LaForce. “We are incredibly pleased with the success of our partnership in developing and implementing this technology.”

Recent staff surveys have also shown that the technology has helped to relieve an administrative burden in the oncology service line. The digital oncology education program serves as an important bridge so that patients do not have unanswered questions or anxieties; this in turn reduces call volume and improves clinical efficiency. Since implementation, cancellation of appointments has gone down more than 3 percent, and appointment no-shows have been reduced by approximately 1 percent.


The digital oncology education program also helps to bridge a gap in individual learning styles, providing an increased opportunity for patients to process information. “The general population isn’t educated on cancer treatment and side effects,” says Koelker. “So, to educate cancer patients appropriately and effectively, we must aim to facilitate all learning styles.”

Future Plans

Since the initial release of the chemotherapy module, Kettering Health Network and Arches have also completed the development of immunotherapy content, which went live in early 2019. The next immediate plans are to begin developing content for ostomy care to support educational needs within the network’s surgical oncology program.

Though Kettering Cancer Care does not have immediate plans to implement content for these areas, considerable interest has been generated in a radiation oncology module and a breast imaging module. In addition to these, there are many other potential areas of development that would significantly benefit the oncology patient.

As cancer programs look to implement similar asynchronous video tutorials, leaders at Kettering Health Network stress the importance of choosing the correct vendor for partnership. “We chose to select and partner with Arches Technology based on its willingness to work with our teams to develop content that was specific to our patient population and clinical education needs,” says Koelker. Cancer programs should look for vendors who are innovative and collaborative. “We needed the incorporation of this technology to be in line with our best practices,” says Koelker. “Arches Technology was able to make recommendations that demonstrated their professionalism and expertise in this type of e-communication.”

“As leaders in oncology, we have a responsibility to use our resources for the best interest of our patients,” Koelker concludes. “We must continue to push the envelope on our technology and innovation to meet patients where they are and to continually offer the very best in cancer care.” 

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