Optimizing Epic for Future Standardized Patient Education

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Abstract

Epic is a new electronic medical record system at Lehigh Valley Health Network for patients and providers to access healthcare information efficiently and effectively. Outpatient Epic went live in February 2015, and inpatient Epic is pending to go live August 2015. Epic allows all patient medical information to be stored in one multipurpose database that extends beyond their medical encounter. Patients are encouraged to sign up for their own patient portal which allows them to connect to their medical record through Epic. In order to optimize Epic for future standardized patient education, it is important to understand that technology is becoming a vital and pertinent form of communication between patients and providers. One benefit of having a complete medical record online is the ability for providers to get a full understanding of their patient by following them through the care continuum. Personal messaging and educational tools link through the Epic database where clinicians can respond and update the patients' records. There will be many opportunities moving forward to give our patients the best possible education through their personal LVHN portal. The main focus of this study was to determine what the best practices are for utilizing the LVHN portal and Epic to educate patients. The findings of best practice research coincide with the Network's triple aim: better cost, better health and better care.

Background

The Family Education Initiative is a committee formed through the Women and Children's Service line with one goal being to create a process to consistently deliver education to patients; to serve as a model to be replicated across the Network. This was sparked by the realization that throughout the Network providers are not consistently giving out the same approved educational literature to their patients. Further research of the patient portal is a part of the group's strategy moving forward.

LVHN offers a patient portal to actively engage the patients to participate in their own care. For fiscal year 2016, the goal of the Network is simple - getting patients signed up to their personal LVHN portal. However, this process has been a challenge. Since Wave 1 Epic implementation went live in February in outpatient ambulatory settings, providers have given encouragement and outlined the benefits to their patients about utilizing the portal. Clinicians are finding it challenging with so little time in an office visit to get patients signed up in the exam room.

Epic is the electronic medical record clinical database that Lehigh Valley Health Network chose to allow providers the ability to efficiently store personal health information about their patients. Epic goes a step further and collaborates with the LVHN portal so patients can view their personal electronic medical record. The LVHN portal serves as an application to link the patients with clinicians for several health related needs. Through the portal, the patient is able to ask questions to the clinical team through messaging, view lab results, request prescription refills, view their health summary and billing statements among many more options. Each

feature encourages the patient to be actively involved in their own care. Following a trend cited by Zarcdoolas, "A number of social and economic factors, such as rising health care costs, a trend towards home health care, as well as shortages of health care workers, have encouraged consumers to increasingly assume a more active role in the management of their own health" (Zarcdoolas, 2013). Among senior leaders in the healthcare industry, Lehigh Valley Health Network has determined how convenience and technology lead to the best solutions for patient access to education and personal health related information.

The Department of Community Health team was able align the role between technology and education through a focus group called Monday Morning Moms. This focus group involved 14 new mothers; questions asked of the group encompassed their time at LVHN throughout their pregnancy and after birth. All 14 women liked pregnancy apps on their smart phones, and most of the moms accessed information through their phones. Out of the 14 women, 8 of them utilized EMMI, which is a form of educational videos and materials specific to OB patients and their care. There was variation in how the explanation of educational tools was delivered. Of these 8 women, only 5 were told about EMMI by their OB doctor. As the network moves into developing a series of specific clinical pathways, there is a need for standardized protocols in all practices, which includes the clinical staff participating in informing the patients about educational tools. There was no standardized way of how the moms were told about EMMI. The role of the LVHN portal has potential opportunity in this area.

While learning about operations within LVHN, it has become apparent that the different clinical settings and units of each inpatient/outpatient department lack a delivery of standardized education which impacts spreading the same consistent message. Some practices are handing out their own information that is not approved by the Department of Education. The goal of this

project at the Network is to establish best practices for utilizing Epic to educate patients in a

standardized way. Currently throughout the Network, colleagues are preparing for Wave 2 of

Epic to go live in August. This is a huge opportunity to step in and decide what type of future

patient education resources could be linked through Epic for the patient to access from their

LVHN portal.

Methodology

Best practices were found through database research on electronic medical record

systems. Limited published resources were available pertaining to Epic. Informational interviews

were conducted, specifically with the director of nursing informatics to understand the

background of the Epic database along with capabilities. An interview was held with a clinical

coordinator to understand Epic in an outpatient practice. A conference call with the CNO and a

nursing manager at Mercy Health in Ohio was conducted about the application MyChart

Bedside. Active and current research through logging into Epic.com helped with discovering best

practices among current health systems utilizing Epic.

Findings and Recommendations

During a meeting with one of the clinical coordinators in a Lehigh Valley Physician

Group practice, she explained there have not been any changes in education since outpatient Epic

began. These practices are still printing out Krames information. Krames, along with KidsHealth

are two data pools of information that have gone through the Department of Education at LVHN

and have been approved as appropriate literature to give to patients. Upon meeting with her, it

was evident that there needs to be more of a push to get our patients signed up through the portal.

Once patients are signed up and utilizing their EMR, the next step is to offer education through

the portal. A recommendation to achieve this standardization in the future would be to upload

only approved literature onto Epic for the patient to view in their portal.
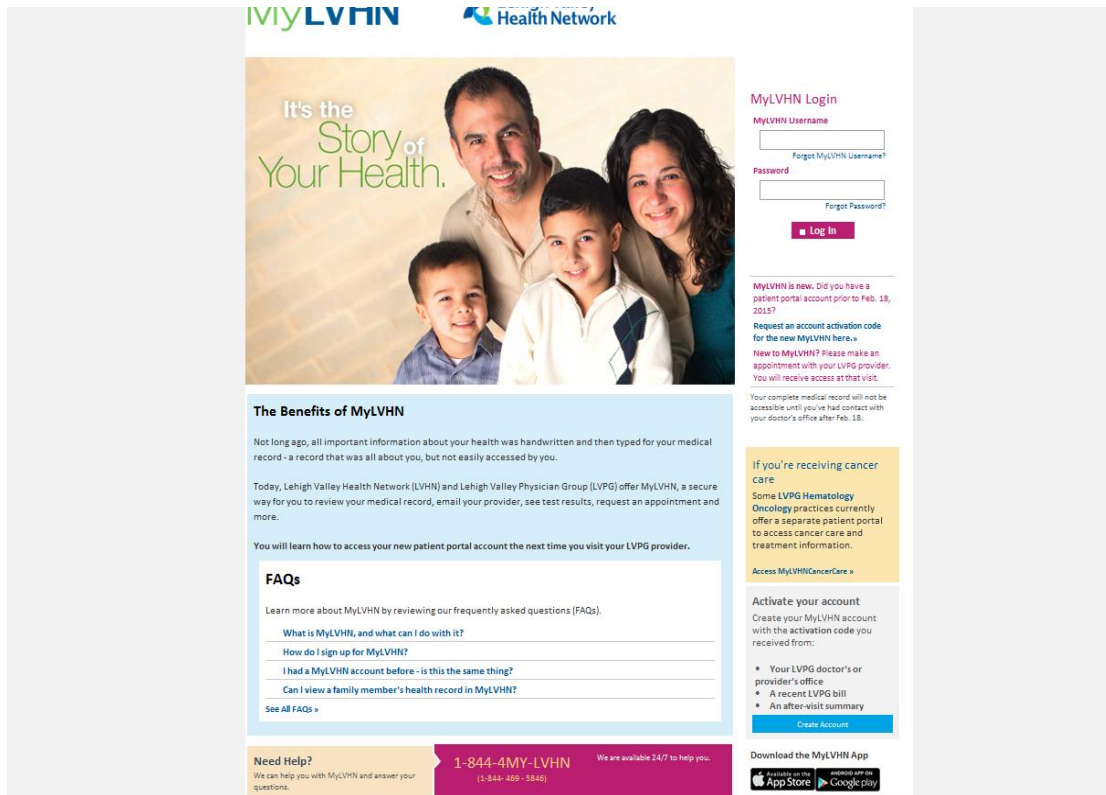
Source: Screenshot of My LVHN Epic Patient Portal

Based on the findings of the enrollment procedure into the portal, the patients were given

misleading and incorrect steps for the activation process through a letter via E-mail. Not only

were the directions wrong, but the nine steps made it difficult for patients to sign up. There is a

need for a simplified set up to make patients who are not proficient in computers feel

comfortable and not get overwhelmed with information they do not have readily available.

Currently, once the patient is logged into their portal, there is no link to offer specific patient

education per particular health need.
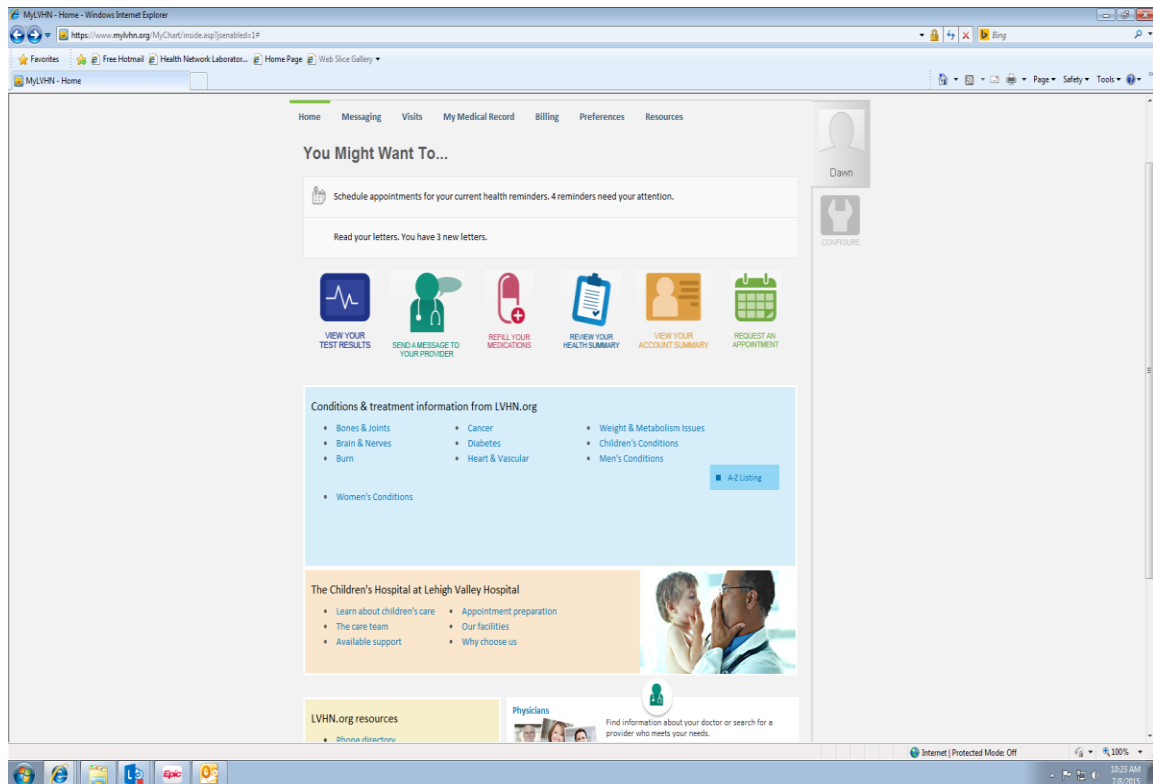
Source: Screenshot of MyLVHN Epic Patient Portal

The screenshot above shows the links currently available once logged into the portal. There are only specific tabs regarding conditions and treatments. This becomes a problem when the patient may not have a particular 'condition' they want to search for, but instead a general health concern or question. There is a 'Resource' tab in the upper right hand corner of the patient portal, but it is underdeveloped and no options are generated under this tab. The 'Resource' tab would be an effective area to provide general education information that is service line specific and easy to navigate through. Ideally, this needs to be an area where all LVHN information is compiled from approved databases and can be accessed by patients. All the compiled educational information could be used similar to a catalogue, and the marketing team could potentially use this area to upload what they have created for community outreach events.

Mercy Health System in Ohio was one of the first health systems to actively start using an inpatient interactive database through Epic called MyChart Bedside. This application is offered through Ipads in preferred units of their facility. Through MyChart Beside, the patients are able to see pictures of their nursing staff and attending physicians, as well as their current medications and the reason for their hospital stay. Mercy Health reports that patient satisfaction has gone up significantly since MyChart Bedside gives patients the ability to be actively engaged in their own health.
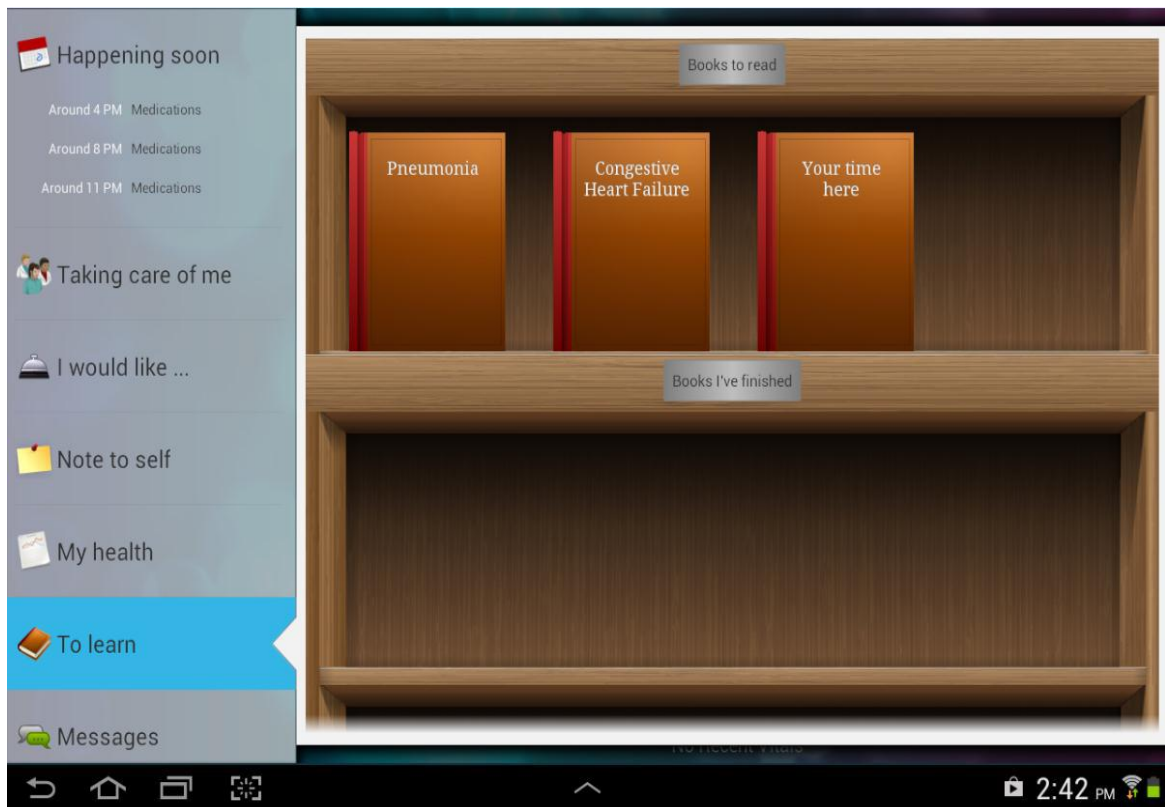
Source: Mercy Health MyChart Bedside Presentation

Above shows a screenshot highlighting the 'To learn' educational tab located after the main sign in page on the Ipad. Through this tab, patients are able to read the specific materials uploaded for them pertaining to their health, and they can also search for any additional

information they may want. Mercy Health did note that a significant amount of manual effort went into making all patient education electronic, which is why they have focused on uploading specific disease or condition templates one at a time based on the majority of admission reasons.

When determining how to get patients to actively engage in the portal through the Ipads, there were barriers for Mercy Health to consider such as age, ethnicity, education level and socioeconomic status. Surprisingly enough in a study found by the Advisory Board Company, age was not a major driver in portal adoption as shown in the graph below. Mercy Health commented that they are not having an issue with age adaptation and that overall MyChart Bedside has significantly improved the positive outcomes of the inpatient experience for patients and family members alike.

Age Not a Major Driver of Portal Adoption
Average Portal Adoption Rate
n = 973,000 patients

Age Group	Adoption Rate
0-9	21%
10-19	17%
20-29	32%
30-39	35%
40-49	30%
50-59	28%
60-69	27%
70-79	20%
80+	10%
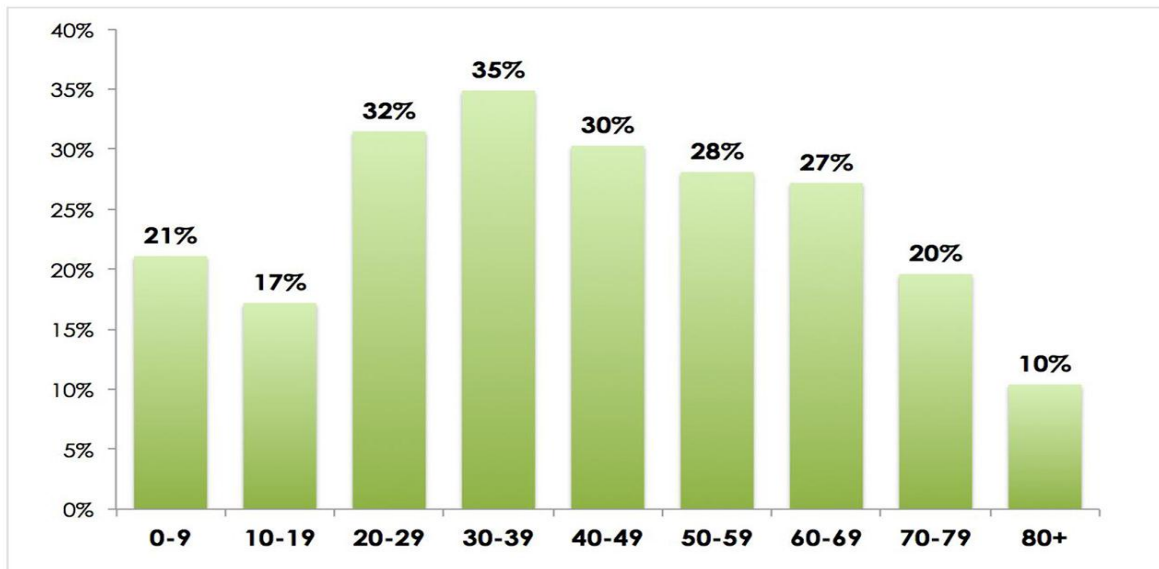
Source: Advisory Board Company

Epic.com is an interactive website that allows health systems who have access to Epic to browse through questions and findings of other Epic users. An interesting Advance Care

Planning strategy has been implemented through Gunderson Health System. This allows patients over the age of 18 or those with chronic health conditions to actively plan and learn the options for the end of life decision making. Patients who have been educated through this ACP strategy have had reduced stress and lower anxiety. ACP has helped with the grieving process of patients and loved ones. Another recommendation which Sanford Health is actively participating in is video visits for their patients who do not have immediate, emergent medical needs. Video visits allow the patient to ask questions or concerns, while allowing providers to educate the patients on an intimate level about the next steps. This has proven to be successful thus far and has heightened patient satisfaction.

<p style="text-align:center">Conclusion</p>

After reviewing the best practices, the following recommendations have been noted. There needs to be a simplified sign up into the LVHN portal. Investment in resources is crucial to consolidate all approved education materials. Further research and development of when and how to utilize and customize MyChart Bedside is needed. LVHN's Epic team needs to be kept current with Epic education and customization. Technology is the future and patients want mobile and convenient use of information. Ideally the future of Epic will coincide between patients and providers both interacting effectively… "adoption by patients and endorsement by providers will come when existing patient portal features align with patients' and providers' information needs and functionality." (Irizarry, 2015). Lehigh Valley Health Network has a significant financial investment in Epic, therefor this database needs to be used to its fullest ability enabling all potential opportunities. The triple aim of the Network, including better cost, better care, and better health will all be accomplished when patients have a standardized delivery of educational materials through their portal and Epic.

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