Electronic Patient Engagement Tools: A Guide for Physicians

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Patient engagement is becoming more important as patients are encouraged to take more responsibility for their own health. A 2013 report by the Workgroup for Electronic Data Interchange defined patient engagement as "dialogue between patients and key healthcare stakeholders." The report questioned to what extent patients could manage their own health information and what tools and infrastructure they need to access and manage this information. The report made three recommendations that would help operationalize patient engagement: (1) standardize the patient identification process, (2) expand health information technology education programs for patients, and (3) promote effective and actionable approaches to patient information capture.[1] Furthermore, allowing patients to have access to more information about their health treatments and plans is now a requirement for physicians participating in the federal meaningful use program.

The Institute of Medicine's comprehensive report, *Crossing the Quality Chasm*,[2] describes how the increased use of the Internet and the easy access to medical information suggest that many patients already are taking a greater role in their health and wellness. Some patients may take a greater role in decisionmaking about their care, while other patients may defer all decisionmaking to their physician. Physicians quickly gain a sense of patient preferences while interacting with them. This guide is designed to make physicians aware of the various electronic tools available for patient engagement.

Health Information Technology in Ambulatory Care and Patient Engagement

The Office of the National Coordinator (ONC), overseer of the federal electronic health record (EHR) incentive program — the meaningful use program — encourages the adoption of "patient-centered health care." In fact, ONC offers this vision for 2020: "The power of each individual is developed and unleashed to be active in managing their health and partnering in their health care, enabled by information and technology."[3] The Institute of Medicine defines patient-centered care as "health care that establishes a partnership among practitioners, patients, and their families (when appropriate) to ensure that decisions respect patients' wants, needs, and preferences and that patients have the education and support they need to make decisions and participate in their own care."[4] There is a slight distinction between the two concepts of patient-centered care and patient engagement. Patient-centered care is about the actions of the physician and care providers, whereas patient engagement is about the actions of patients regarding their own care.

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[1] 2013 WEDI Report, 2013
[2] Institute of Medicine, 2001
[3] Consumer Health, 2014
[4] Institute of Medicine, 2001

The goal of patient engagement is to affect patients' behavior through information so they can maximize the health care services available to them.[5] For example, patients with diabetes can receive relevant information that helps them better manage their diabetes. Patients are empowered through information, including access to health data, ability to manage appointments, and reminders for preventive care. The potential patient safety impact is also significant as patients can access physician instructions and better understand their treatment plans. This can help patients comply with the carefully prescribed instructions.[6]

Patient Portals

One way that physicians who use an EHR can enable patients to view their medical record is through a web-based patient portal. Patients are able to view components of their medical record by signing up for the patient portal online or at their physician's office. Patient portals are typically a module of the physicians' EHR system. Some of the portal features allow patients to view portions of their medical record, request appointments, order prescription refills, view test results, see current medications, read patient education materials, and communicate electronically with the practice. Patient portals usually contain patient information in a view-only mode and do not allow patients to make changes to their health record.

According to Neuner, et al (2014), early adopters of patient portals report high patient satisfaction with the access to their own medical information.[7] Patients also are satisfied with other functionality such as ability to set appointments and message their physicians.

Patients typically access the patient portal through the practice website. If the practice does not have a website, creating one is an essential first step. The website can serve the practice in other ways, for example, by displaying pertinent practice information such as maps to the practice, patient forms, and educational information. It is a good idea for practices to start collecting patient email addresses because email is an ideal method for inexpensively sharing portal information with patients.

Physicians may worry that using a portal adds extra time to their already busy day, but in reality the portal can bring efficiencies to the practice in areas that are already considered uncompensated tasks such as phone calls to the practice.[8]

Physicians should check with their EHR vendor concerning user agreements that patients may need to accept before accessing the portal. It is critical that physicians and others in the practice comply with the Health Information Portability and Accountability Act (HIPAA) at all times when sharing information with the patient. Physicians should check with their EHR vendor to see which data fields flow to the patient portal to understand what information the patient sees. Some vendors may allow practices to customize the information that patients see in their portal. At a minimum, physicians should expect to see the data elements required for the patient access and clinical summary for meaningful use, listed in Addendum 1.

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[5] Center For Advancing Health, 2010
[6] Endsley, Kibbe, and Linares, 2006
[7] Neuner, Fedders, Caravella, Bradford, and Schapira, 2014
[8] National Learning Consortium, 2012

Personal Health Records

Physicians can recommend various electronic tools for their patients as the patients take responsibility for their own health information. One is a personal health record (PHR). ONC defines a PHR as "an electronic application used by patients to maintain and manage their own health information (or that of others for whom they are authorized to do so)." The PHR is separate from, and does not replace, the full medical record maintained by the physician. The PHR differs from the patient portal in that the patient owns the account and controls the content. It allows the patient to collect health information from multiple sources, whereas the patient portal typically is tethered to the practice's EHR, thus limiting the content to the information contained within the practice. Patients may prefer a PHR over the patient portal because they retain control and have complete access to the information.

PHRs present a challenge for physicians related to meaningful use. Under the current rules, the Centers for Medicare & Medicaid Services requires that physicians provide a way for patients to view, download, or transmit their health information. Physicians must track the percentage of patients viewing or accessing their health information, which in turn requires physicians to press patients to use the portal so that physicians can track their meaningful use metrics. The patient's PHR does not allow a physician to track and see if a patient viewed or downloaded his or her health information.

PHRs are useful to patients with chronic conditions who see multiple physicians and health care providers by assembling their health data in one location. A PHR may well benefit a family with multiple children so parents can keep records of immunizations, physicals, medical visits, and medications in one easy-to-access location. Depending on the technology provided by a practice's EHR vendor, patients may be able to send their own health information from the practice portal to their PHR.

However, the data may not flow easily from the ambulatory EHR directly into the patient's PHR. The patient may be required to manually enter all the information related to a clinical visit. Once systems have higher levels of interoperability, this challenge will be nonexistent.

Blue Button

The Blue Button initiative is a campaign directed at patients, allowing them to download their own information. The initiative began on the Veterans Administration's patient portal allowing veterans to securely download their own health information. Now Blue Button is readily available to Medicare beneficiaries through the Medicare website and is quickly spreading to other areas of health care.[9] By clicking the Blue Button, patients can download the information, print it, and save it as a portable documents format, or PDF, file. Patients can then share their medical information with others, or integrate the information into their PHR. This is especially helpful for retired patients who may travel; with their information in a portable format, they can share it with clinicians for any health event.

The easiest way to integrate Blue Button technology into the practice is for EHR vendors to make it available on the patient portal. Essentially, patients should be able to log into their portal, see the Blue Button icon, and click on it to download their health record.

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[9] *Blue Button+ Implementation Guide*

Physicians interested in integrating Blue Button with the EHR should ask their vendor if they participate in the Blue Button initiative; if the vendor does not, ask when it plans to add this functionality; or if the vendor does have the functionality, verify that the Blue Button icon is available on the patient portal so patients can download their own information.

Direct Protocol

The Direct Project began in 2010 as a simple way to exchange clinical information securely among trusted participants.[10] Some like to refer to it as health email since it is a HIPAA-compliant way to share patient health information securely. Many health organizations are embracing Direct as a way to securely package and share clinical information. For example, a primary care physician may want to send a patient's medical record to a specialist for a consult or referral. The primary care physician could use Direct as an electronic means to share information. Using Direct in this manner can help satisfy the "transitions of care" measure for meaningful use. Direct can replace the fax and facilitates the sharing of information through EHRs. Direct is not intended to replace health information exchanges (HIEs). In fact, many HIEs will help physicians set up a Direct account. Direct differs from HIEs in that Direct supports point-to-point communication, whereas an HIE will gather data about a patient and deliver it to the health entity when queried.

Currently there is no directory of physician Direct addresses. It is recommended that physicians gather Direct addresses from other practices they typically contact for referrals or regular communications.

Just as physicians can have Direct addresses, patients can set up their own Direct address through their PHR vendor. Patients interested in having health information, such as their clinical summary, sent directly to their PHR can give their Direct address to the practice. This would be one way of delivering health information to the patient per the patient's preference. Physicians should check with their EHR vendor to see if there is a field allowing the storage of the patient's Direct address within the EHR.

Health Applications (Health Apps)

Smartphones are ubiquitous, and almost all adult patients own one. One reason they are so popular is open access to the operating system, allowing developers to create numerous applications, or apps, for users. Apple alone has more than 31,000 health, fitness, and medical apps available to patients.[11]

The U.S. Food and Drug Administration (FDA) has authority to regulate mobile apps that fall into a category of high user risk. According to an American Medical Association reference committee report, apps in that category typically are those that perform medical device functions.[12] Apps intended for general patient education or that offer training materials for physicians do not fall under FDA regulatory authority. The FDA intends to "exercise enforcement discretion" over apps that allow patients to track and manually enter symptoms or that have a checklist of common symptoms with advice on when to seek medical help.

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[10] Direct overview, 2014
[11] Essany, 2013
[12] American Medical Association

Physicians may choose from among many options when recommending health apps to their patients. After researching options they can safely recommend to patients, a physician may want to try out a few apps for various health issues and perhaps even observe a few patients using an app to be sure they are doing so correctly.

These health apps may be related to weight loss, fitness, diabetes, health education, cholesterol, blood pressure, and many others health conditions. Specialists may be able to home in on some very specific apps for their patient population, while family and internal medicine physicians may have an arsenal of apps to recommend. Apps have become so popular that the U.S. surgeon general has even hosted challenges for creating apps to promote good health.[13] By understanding and promoting the use of apps for good health and disease management, physicians can give patients another electronic tool for self-managing their health that should result in improved health outcomes.

Communicating the Patient Engagement Strategy

Before a practice adopts a patient-engagement strategy, it is important that all the physicians in the practice recognize the value as it relates to patient care and practice efficiency. The practice should develop a clear communication plan for effectively promoting the portal to the patients. This plan can include displaying posters around the practice announcing the portal, giving patients a tangible card or simple sheet with sign-up instructions, and sending an email encouraging them to sign up for the portal. See sample language in addenda 2 and 3. If physicians decided to encourage use of PHRs, Blue Button, or Direct, then language can be adjusted appropriately for the various tools.

Patients are much more likely to use electronic tools if their physician recommends them.[14] Once developed, education about how to use the various tools should be tested with a few patients of various educational levels to ensure the instructions are clearly written and understood. This is a prime opportunity to explain to patients why having access to their own medical information can help them, especially in the event of an emergency.

Conclusion

Patient engagement and patient-centered care are evolving topics and an area of health care poised for significant growth and improvement. Patients are interested in participating actively in their own care, but not all patients have the desire, time, and access to needed information. The access to personal health information must be balanced with patient preferences and HIPAA compliance. Winston Churchill said, "Healthy citizens are the greatest asset any country can have." As patients take this step towards engaging with their physicians as partners for better health outcomes, it is one step closer to a healthy nation, one patient at a time.

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[13] The healthy app challenge, 2011
[14] Nazi, 2013

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Addendum 1: Patient engagement data elements required by meaningful use for patient portal.

Patient access requirements	Clinical summary requirements
Patient name	Patient name
Physician's name / office contact	Physician's name / office contact
	Date, location, and reason for visit
Current and past problem list	Current problem list
Procedures	Procedures during visit
Current medication list and history	Current medication list
Medication allergies and history	Current medication allergies
Laboratory test results	Laboratory test results
Vital signs (height, weight, BP, BMI, growth charts)	Vital signs (height, weight, BP, BMI, growth charts)
Smoking status	Smoking status
Demographic information (sex, race, ethnicity, date of birth, preferred language)	Demographic information (sex, race, ethnicity, date of birth, preferred language)
Care plan (goals and instructions)	Care plan (goals and instructions)
Known care team members (such as PCP of record)	Immunizations during visit
	Diagnostic tests pending
	Clinical instructions
	Future appointments
	Referrals to other physicians or providers
	Future scheduled tests
	Recommended patient decision aids

Addendum 2: Sample webpage and information card from Premier Family Physicians.

Addendum 3: Sample scripts encouraging use of patient portal.

The idea of a patient portal is new to many patients. Mentioning portal benefits and functionalities frequently during a patient's visit may encourage use. It may benefit the practice to train employees using role playing and sample scripts for talking to patients about the portal and its benefits. As the practice integrates the portal, mention of it to patients should become a natural part of the workflow. The practice has paid for this extra functionality, so be sure to get a return on your investment by ensuring it works for you and your patients.

Have brochures or other printed items that physicians and staff can hand patients as needed. These informational pieces should detail all the benefits the patient receives by using the portal. Be sure to include information about how the practice complies with HIPAA and takes necessary steps to protect patient information.

The Agency for Healthcare Research and Quality has prepared an excellent waiting room video for patients that encourages communication between patients and their physicians.

Communication Script for Receptionist

Did you know that our office now has a patient portal that allows you to view information from your office visits? It also allows you to view a list of medications prescribed, lab results, and other important health information. Are you interested in signing up? [Wait for answer].

[If no]: Should you change your mind, just let me know, and I will be happy to help you set up an account.

[If yes]: You do need a computer with an Internet connection. Is that available to you?

[If yes]: I can go ahead and assign you a log-on and password.

[Instructions from here may vary based on functionality of portal].

Communication Script for Medical Assistant or Nurse

The receptionist may have mentioned the patient portal to you. Did you know that your vital signs such as blood pressure, weight, and even lab results are available to you on our practice's patient portal? You can also use the portal to request medication refills, or ask follow-up questions from today's visit.

[If available, provide the patient printed instructions for signing up for the portal.]

Communication Script for Physician

[As you finish up your visit with the patient, it is a good time to remind him or her of the patient portal].

The receptionist may have mentioned the patient portal to you. Your labs [if applicable] from today's visit should be available for your viewing within XX days. If there is anything out of range, expect a call from me or my staff explaining the results. Your current medication list should appear in the portal for your convenience. Instructions from today's visit and other relevant patient education are also available on the portal. Take advantage of what is there for you. If you need help signing up, visit with the receptionist today.

Communication scripts are designed to get the conversation started; there are many variables specific to each practice and the patients served. Questions about this or other health technologies may be directed to TMA's HIT Department by emailing HIT@texmed.org or calling (800) 880-5720.