Implementation and Management of Patient Portals

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The advancement of technology has changed the practice of medicine. It has evolved the physician-patient relationship from solely a face-to-face interaction into real-time online encounters, from e-mails to virtual appointments. Patient portals represent such a technological advancement, leading the charge and breaking new barriers in patient communication.

Patient portals, which are becoming commonplace within healthcare organizations, provide online access to a patient's healthcare information. An increased awareness and need for the appropriate management of the protected health information (PHI) flowing in and out of patient portals is critical to the overall confidentiality, privacy, and security of that information. For the purpose of this Practice Brief, a patient portal is defined as secure, convenient 24-hour online access to a patient's health information from any location. A patient portal may or may not include electronic communication between the patient and the provider.

Patient portals can empower and engage patients and families to actively manage their healthcare. The "meaningful use" EHR Incentive Program, which requires the adoption and use of a patient portal, is a strong driving factor for the implementation and management of patient portals within a healthcare setting, which provides financial incentives for the meaningful use of certified electronic health record (EHR) technology. With the right portal build and the implementation of appropriate policies and procedures, healthcare organizations can provide easy-to-use self-service patient tools that enhance patient communications and engagement.

This Practice Brief will provide recommended practices for the implementation and management of patient portals, including the phases of implementation, ongoing operational considerations, and legal and regulatory requirements.

Implementing Patient Portals

Implementation is dependent upon a number of considerations, including the complexity of the organization's systems and culture, the health IT infrastructure present, interoperability capabilities, and meeting legal and regulatory requirements—whether mandatory or voluntary.

Stakeholders Involved

To provide for the most comprehensive and effective portal, it will be necessary to develop a taskforce to represent the stakeholders that will be affected:

- Senior leadership: Provide support and sponsorship of the project.
- **Health information management (HIM) professional:** Provide knowledge of the organization's data and information, data integrity, privacy and security, and EHR systems.
- **Physicians/clinicians:** Help determine what information will be displayed and when (i.e., what data needs to be manually reviewed before posting, and an appropriate delay period).
- **Privacy and security officer(s):** Ensure organizational policies, processes, and education is in place to prevent inappropriate access and disclosure.
- Patient advocates: Speak on behalf of caregivers, patients, and personal representatives in a range of delivery settings to meet the expectations of patient interactions (i.e., appointments, profile updates, billing, and communication).
- Risk management/legal counsel/compliance: Ensure overall compliance with all applicable laws and requirements.
- Information technology: Program and maintain the software, interfaces, etc. to support the portal, including safeguarding protected health information (PHI) as obligated by organizational policies and procedures and federal regulations.
- Marketing: Review and promotion of organizational and patient information materials as well as providing support for any organizational branding needs.

Strong Internal Communication Strategy

Communication is critical to the success of the portal. An organization-wide communication plan is essential for transparency about the development, rollout, use, and maintenance of the portal's implementation.

Selection of the Portal System

Patient portals can exist as a standalone system that interfaces with an organization's EHR systems or as a feature within the EHR system itself. Whether using a single entity (i.e., limited to a hospital or clinic) or a regional portal product, access may be as broad as the full legal health record or limited only to selected continuity of care data sets such as discharge summaries and lab results.

The selection of a patient portal must be made based on the organization's strategic plan and objectives for implementation. Goals and desired outcomes of a patient portal will vary among organizations, from meeting the meaningful use incentive to increasing patient engagement. The following, at a minimum, should be considered prior to selection:

- Regulatory and/or voluntary incentive requirements: Ensure compliance with all federal and state laws and regulations.
- Clinician and patient participation: Determine who will generate and use the portal information, including when and which information will be made available.
- Administrative (bill paying, appointments): Determine which administrative tasks will be available to patients on the portal such as release of information, customer service, appointments, registration, profile updates, billing, and email
- Resource needs:
 - Workforce: Evaluate staffing needs (internal and/or external) to build, maintain, and manage the portal system (i.e., ongoing integrity assurance, answering user questions, or providing internal/external training on policies and procedures).
 - **Budget:** Ensure budgetary needs to meet the organizational goals and vision for the portal implementation and maintenance.
 - Vendor: Assess external vendor capability needs for development, implementation, and ongoing support.
- **Information access:** Establish who will have access to the portal and for what purpose. Determine the process for the provisioning and de-provisioning of user access.
- Technology capabilities: Support tasks related to interoperability needs and privacy and security considerations.
 - **Interoperability:** Ensure the portal will integrate with other systems (internal and, if needed, external) including the organization's EHR system while validating continued maintenance of information integrity.
 - **Privacy and security:** Make certain the privacy and security of information is understood and maintained at all times.
- **Usability:** Ease of use of the portal for the user (both workforce and patient) is critical to the success of the overall system.

Rollout of the Patient Portal

Rollout of the portal will require the careful minding of several important steps.

- 1. **Timeline:** Establish a realistic timeline to achieve the goals and objectives of the portal system with adequate flexibility for unforeseen obstacles.
- 2. **Portal content:** An interdisciplinary team (i.e., clinicians, HIM, IT, pharmacy, laboratory, radiology) determines what type of health information will be made available to the patient in the portal. Content determinations are not all driven by meaningful use obligations.

- 3. **Testing:** The portal will be used by patients, patient representatives, and associated workforce members and therefore must be tested by a number of patients to determine if it functions well for all segments of the population. The project team needs to conduct user acceptance testing for different population types (i.e., ages, education levels) that best represent the population that will use the portal on a regular basis.
 - Ongoing testing can create a need to make changes in the portal system. In addition to the functionality and comprehension testing, the confidentiality, security, and integrity of the data will also need to be validated. Such testing would need to be directed toward the information flowing into the portal from other related systems as well as any information that might flow from patients or their surrogates.
- 4. Access and authentication: Access to the portal should ideally be initiated during a patient visit or hospital stay. This allows the organization to establish its authentication process (verify user identity), ensure the patient has access to the training and other materials that can accentuate the use of the portal, and explain how the portal can increase the patient's involvement in their care. Such information will vary by portal and patient. For an initial period it would be an extra benefit if the organization could facilitate some sort of hands-on training at the organization location, but at a minimum workforce should encourage participation.
- 5. **Information governance:** A portal's information is not static as long as the patient is receiving care. Any changes in the source information or the systems involved, new information, and so forth requires constant governance to ensure information integrity, including the information in the portal. Portals will evolve and expand as resources and requirements change.

Patient Portal Operations

The overall success of a patient portal requires robust planning and strong ongoing collaborations within the organization, as well as attention to numerous operational considerations. Operational considerations must be proactively addressed prior to implementation and continuously thereafter. At a minimum, the following considerations should be addressed.

Registration and Enrollment

Registration for the patient portal is typically a multistep process. At the time of the in-person hospital or clinic visit, information is given to the patient about the portal and the patient's e-mail address and other demographics are obtained for registration. The e-mail address is necessary for the activation process and subsequent communications. For patients without e-mail addresses, the organization should consider providing recommendations to the patient for obtaining an e-mail address. The type of patient identifiers collected during registration is important for finding an accurate match in the EHR.

Balancing the need to establish secure patient identity procedures with ease of use of the patient portal is important. Each organization will determine their identity proofing and authentication procedures. Some examples include:

- A portal activation code (one time use for initial access/set-up to the portal by the patient) may be included with
 discharge instructions, or enrollment procedures may be communicated separately via mail, e-mail, or phone to the
 patient.
 - It is recommended to allow 30 days for initial use of the activation code before the portal enrollment period expires.
 - Upon enrollment completion, a user ID and first time (generic) password will be provided.
 - Note: In-person enrollment for the portal is strongly recommended to reduce the risk of inappropriate registration and access. Failure to implement proper security measures can result in inappropriate access to PHI by unauthorized persons (i.e., an individual attempting to impersonate the patient for access to PHI). When registration via a website is permitted, strong security measures include using an e-mail address already on file or sending a follow-up communication by mail or phone to confirm registration and request the patient contact the organization if they were not involved in the registration.
- A medical record number may also be requested along with a unique patient identifier.
- Patients may be asked to acknowledge that they are submitting the enrollment on their own behalf or on the behalf of a minor. Some organizations may permit proxy access, wherein a patient can permit another user to access the portal on behalf of the patient.

- Some organizations require that the patient receive services within the past 12 months to be eligible to register for the portal.
- Organizations must provide education to patients/proxies regarding the importance of completing the enrollment in a timely manner as well as proper overall use of the portal.
- Deactivation processes should also be developed and put in place for user inactivity, misuse, or deceased patients.

Ensuring Data Integrity

The integrity of the data within a patient portal is impacted by multiple sources, including the source EHR. Inaccuracies in a source system's information, such as when a lab result is imported into the wrong patient's health record, will flow into the patient portal, resulting in erroneous information. This can lead to an increased risk to the quality of care provided. Organizations must have policies and procedures in place to help ensure the integrity of patient data and the accuracy of the path it takes to reach the portal.

This same approach must be taken with external systems, such as independent laboratories, that will feed information into the portals. Each workforce member involved must have education and training on the system's functionalities and capabilities as well as its limitations. Proper education and training increases awareness for appropriate use and reduces the risk for error. Portal screeners, a new and evolving role, review patients' charts and look for misfiles (i.e., files that belong to other patients or files that are incorrectly labeled). These portal screeners ensure data integrity and prevent HIPAA violations prior to releasing the record.

1

Handling Privacy Incidents/Violations

Privacy incidents and HIPAA violations may occur if wrong patient data populates the patient portal. For example, when an admission clerk enters incorrect patient information during registration and data integrity auditing procedures are not in place (i.e., portal screeners). An increase in patient-reported incidents may be expected with portal access, and patients must know who to contact to report suspected incidents and violations. Patient portals should also be included in the organization's security risk analyses to assess for potential vulnerabilities and threats, including third party vendor assessments.²

Increased Patient Access

Implementation of a patient portal may decrease the volume of patient release of information (ROI) requests for information provided in the portal. The traditional patient ROI request process requires properly executed authorization forms and HIM oversight for record release. Instruction should be provided in the portal on how to obtain access to their full health record.

While access to health records via the patient portal may decrease release of information requests, requests for amendments may increase as patients may identify errors that might otherwise go undetected. It may be helpful to plan for additional workforce members to handle the potential increase in amendment requests, at least during the early post-go-live period.

Workforce Education and Training

An organization's workforce should have a general knowledge and understanding of the portal, how it works, what information is contained within it, who is serving as the portal liaison, and where to direct any patient questions or problems.

Given the nature of the information and its potential impact on patients and their healthcare, it is as important to provide educational materials to the portal users who will be accessing and/or submitting information as it is to train the workforce. Training should include instructions on how to use the system, appropriate privacy and security practices, where questions can be addressed, and where to report problems when encountered.

At minimum, the following education should be provided:

- Senior leadership: General overview and use of the portal.
- **HIM professionals:** Portal content, user registration, and login procedures including identity verification, troubleshooting and answering patient questions, terms and conditions content, what to do in the event of a privacy issue

(i.e., wrong patient's information contained in the portal) and the proper response for handling other issues associated with patient portals.

- Physicians/clinicians: Portal content (what is available and when) and patient messaging capabilities and procedures.
- **Risk management/legal counsel/compliance:** Portal content and procedures regarding minor access, proxy access and management of sensitive PHI (i.e., HIV/AIDS, mental health, substance abuse).
- **Privacy and security officer(s):** Portal content and functionality, interoperability issues, and procedures regarding minor and proxy access.
- **Information technology:** Portal content, user registration and login procedures and interoperability issues, identity verification, troubleshooting, and answering patient questions.
- Patients/patient advocates: Portal content, user registration and login procedures, messaging procedures, and procedures regarding minor and proxy access.
- Registration/scheduling: Portal content, identity verification, user registration and login procedures, terms and conditions content, what to do in the event of a privacy issue (i.e., wrong patient's information contained in the portal) and the proper response for handling other issues associated with patient portals (see issues and challenges associated with patient portals).

Patient Consent Not Needed for Portal Participation

Per the HIPAA Privacy Rule, patients have the right to access their information, and therefore consent is not required to access the patient portal. Patients must agree, however, to the terms and conditions presented to them when enrolling in the portal. The patient will be asked to sign an authorization to release records to the portal if the portal is hosted independently by a third party vendor versus the hospital or clinic. 6

Content that should be placed in the Terms and Conditions for Portal Use includes:

- How the portal is used for healthcare services
- User ID and password responsibilities
- Electronic communications responses
- Setting up proxy access
- Privacy and security assurances
- Patient responsibilities
- Waiver of liability

Legal and Regulatory Considerations for Patient Portals

The Centers for Medicare and Medicaid Services (CMS) requires eligible providers or hospitals to adopt a patient portal to meet the stage 2 meaningful use program's requirements. But with the patient portal comes a host of legal issues a healthcare organization must consider, including how to manage minors (patients under the age of 18 in most states) who have access to portal accounts, whether the organization will allow—and how they will manage—"proxy" accounts, and how an organization will ensure these records are properly secured.

Minors (Pediatric Patients)

Issues associated with managing a minor's PHI and a pediatric patient portal only compounds these issues. Each organization needs to evaluate the benefits and risks related to these specific issues before choosing to create a pediatric patient portal. Generally speaking, a parent controls access to and the disclosure of a minor's PHI unless otherwise specified by state law. In specific situations, however, only the minor may consent to the release of information. Organizations should research appropriate state regulations and address them accordingly. The definition of a minor varies by state law.

Proxy Accounts

Proxy access to the patient portal is granting access to someone other than the patient. One of the primary goals of a patient portal is to provide patients convenient access to their own health information. There are many examples of situations where someone besides the patient may need access to PHI and the patient portal is an excellent mechanism to provide that access.

Some examples of proxy access are:

- An adult child or a caregiver of an elderly parent/patient
- Home health aide to a chronically ill patient
- A healthcare power of attorney responsible for the healthcare of an incapacitated patient
- Anyone else designated by the patient (spouse, partner, etc.)

The patient must first be informed of the risks associated with granting proxy access to their patient portal. The covered entity (CE) is not liable for information accessed, redisclosed, or printed out by a third party with proxy access previously requested by the patient.

Security Issues and PHRs

Whenever you create a system for transmitting or storing PHI there will be security issues. The security of data maintained in or transmitted to the patient portal from the EHR should be treated the same as any other PHI, and follow the same policies, procedures, processes, and workflows for the security of data at rest and data in motion.⁷

However, patient portals introduced another unique security threat: the patient's password and login information. The patient has a responsibility to protect their private login information; however, if the portal password is compromised through no fault of the CE (the patient's computer is hacked, the information is stolen from the patient's home, etc.) and the patient notifies the CE, the CE now has a duty to respond quickly to protect the patient's information from a known threat. The CE must establish a process where they can quickly deactivate the account or change the password.

A patient portal should not be confused with a personal health record (PHR). While both are valuable tools in recording and maintaining health information, there are some important differences. A PHR is created by the patient, maintained by the patient, and the CE does not control the information within a PHR. However, a patient portal is created by the CE, information within the portal may be created by either the CE or the patient, and the CE is responsible for granting access. It is important to make sure patients and CEs know these differences, especially as they relate to privacy and security.

Portal Use Agreement

There are many legal and risk management issues concerning patient portals. As stated above, many of these issues are state-specific. Organizations must research the laws specific to its practice area and develop a plan that meets its specific organizational goals. A portal use agreement identifies the responsibilities and outlines expectations between the user and the organization. Portal use agreements are recommended but not required.

Patient Engagement and Education

There are several areas to consider when trying to engage patients in the portal, as well as educate both patients and staff on its use.

Health Literacy

As patients increasingly engage in portal use, healthcare organizations must recognize health literacy concepts. The Department of Health and Human Services (HHS) defines health literacy as a complex phenomenon involving "skills, knowledge, and the expectations that health professionals have of the public's interest in and understanding of health information and services." 10

Challenges or limitations with health literacy do not negate patient interest in the connectivity and engagement offered by portals. Therefore, in the spirit of preparedness, healthcare organizations must proactively and continuously evaluate resources

and processes related to portal support and account for variances in health literacy among patients. Organizations should allocate educational resources for patients related to information content, information navigation, and technical support.

It is important to consider disparities that may arise related to intellectual or physical disabilities, generational diversity, or language barriers. A thoughtful plan is necessary to enhance patient portal access to promote health equity and improve outcomes for all patients.

Education and Support

Develop and execute a community-wide communication plan about the portal and how people can become engaged. Ongoing education and training for the patient is just as important as it is for the workforce. In order to ensure the continuous success of the portal, patients must be trained on the proper use of the portal as well as have an understanding of the significance of PHI and how to safeguard it. Education and training can begin during the enrollment process and should include areas such as the correct selection and use of passwords, where the information is viewed, how the information can be accessed, who has access to the information, and so forth. The patient's responsibility for maintaining the privacy of his or her own information must be covered to minimize the organization's risk arising from a patient's use of the portal system.

Brochures and/or videos can also be developed to provide patients with resources for effective and safe portal use guidelines. Some organizations have the patient sign a statement that confirms he or she has reviewed this information as an added precaution and to reinforce the importance of it. Patients should know where to go and who to contact for any portal assistance needed. Some organizations have a patient support line specialist who is the direct line of contact for the patient regarding the portal. This can be done in-house via a call center or can be outsourced to a patient communications solutions vendor.

Meaningful Use's Role

Meaningful use program obligations require engaging patients and their families to routinely access their portal accounts to view, download, and transmit health information, as well as message with their providers. Encouraging continuous user access to maintain, update, and validate user profile and demographic information, including proxy access, helps to ensure accuracy of the data.

Other Issues and Challenges of the Patient Portal

Some other issues and challenges that may need to be considered include:

- The timing of providing results. Providing immediate, direct patient access to test results is advisable when they relate to a known condition which has been thoroughly discussed with and explained to the patient by the provider and access to ongoing results enables the patient to modify treatment. It is not advisable if the results are indicative of a new diagnosis, in which case a delay should be built into the records process to enable the patient/provider discussion to take place prior to giving a patient access to his or her results. Capabilities for feeding information into the portal should be explored. Some portal systems have the ability to suspend data release by a specified amount of time (i.e., 24 to 72 hours), or the data may have to be processed manually.
- Interoperability: For portals that are comprised from multiple components of an EHR and/or multiple EHRs, there are challenges related to interoperability that include:
 - Master Patient Index (MPI) issues (i.e., different Medical Record Numbers (MRNs) in different systems)
 - Selecting which system to send information from
 - Preventing wrong data selection and breaches

Each of these challenges should be considered and addressed during the implementation of any patient portal. It must then be re-evaluated periodically to ensure that all procedures are still relevant and functioning as planned.

HIM's Role in Portal Implementation, Maintenance

Patients and their caregivers often have limited knowledge of how to navigate the complexities of the healthcare system, which makes it difficult for them to take the lead in managing their own healthcare. Patient portals can assist patients in navigating around some of the barriers by giving them an opportunity to share information with their healthcare team.

Although participating in a portal offers many quality and efficiency benefits for both the patient and provider, it also creates potential risks that should be considered. HIM expertise is critical in determining what types of information will be shared through the patient portal with patients and their designated caregivers. In addition, the quality of information in any patient portal is only as good as the documentation that is contained within the EHR. Therefore, the need for HIM to continuously monitor documentation quality and timeliness is vital.

HIM leadership can specifically help ensure a portal's success by:

- Developing enrollment processes, including the management of proxies and dependents
- Designating HIM staff to approve registration and remove access where needed
- Working with project leadership to develop a plan for advertising the portal with signage and by developing flyers for patients that can be placed in waiting areas and distributed at check-in
- Considering relocation of HIM staff to patient care areas to assist with sign-up during the early post-implementation period
- Developing talking points for clinical staff to use to encourage patients to register for and use the portal
- Developing policies and procedures for routing messages and guidelines for the timeliness of responses, including a plan for timing release of lab results and other information to patients
- Participating in pilot testing of the portal and accuracy of the information to ensure privacy standards are met
- Designating HIM staff to assist patients with portal questions and to help with troubleshooting; consider appointing a patient portal representative within the HIM department to direct calls from patients
- Helping to educate patients about what is appropriate to communicate via the portal, how and when providers will use messaging, and when to check the portal for lab results or appointment reminders
- Encouraging patients to utilize the portal to obtain electronic copies of their health information, review lab results, and correspond with clinical staff
- Responding quickly to any reports of documentation errors and providing patients with the necessary paperwork to request corrections and amendments

Engaging patients through a patient portal can maintain or even increase patient loyalty to an organization while improving overall communication. It is essential that HIM leaders get involved early in the selection and implementation process and remain committed to ensuring the ongoing use and expansion of the patient portal.

Notes

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