

Beyond the Foundations of Stage One: Realizing the Patient Engagement Goal of Meaningful Use

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White Paper Prepared by Gary Kolbeck, Heather Boyle Townsend, and Helen Koliner¹

Patient engagement is the cornerstone of the federal efforts to transform the delivery of healthcare through the use of health information technology (“HIT”). Meaningful communication and patient empowerment is the essential prerequisite to the comprehensive effort to transform the delivery of healthcare: from delivering improved health outcomes in conjunction with meaningful use, to capturing the preventative benefits of increased health literacy, to overcoming the legal impediments to data sharing and interoperability, to driving down the costs of healthcare through increased efficiencies in care delivery and coordination, and to reducing malpractice litigation – the ultimate goals of the more than \$135 billion dollar federal undertaking cannot be achieved without meaningful patient engagement. Defining the specific criteria by which genuine patient engagement will be measured will continue to challenge regulators as they implement the broad-based framework for healthcare reform through technology and dispense the \$26 billion allocated for incentive payments to hospitals and providers that are meaningful users of certified HIT. But, as the Centers for Medicare and Medicaid (CMS) and the Office of the National Coordinator for Health Information Technology (ONC) move into defining Stage 2 standards and criteria for Meaningful Use, with an expected emphasis on criteria and quality measures central to achieving patient-centered care, the various patient-focused efforts across the federal government will coalesce to place patient engagement front and center.

Stage 1 Meaningful Use Requirements: A First Step toward Patient Engagement

The recently released Final Rule on the Medicare and Medicaid Programs; Electronic Health Record Incentive Program (“Final Rule”) defines the initial criteria necessary to achieving meaningful use to qualify for incentive payments through 2012.² The patient engagement components of the rule include both direct first steps (i.e. patient education as a component of the menu set) and functionalities expandable to capture contemplated patient engagement requirements (i.e. the provision of discharge instructions in electronic form, recordation of demographic data, recordation of smoking status, recordation of condition).³ While the Final Rule for MU Stage 1 incorporates the flexibility in HIT

¹ Gary Kolbeck is the General Manager, LodgeNet Healthcare, a division of LodgeNet Interactive Corporation. Heather Boyle Townsend is the Director of Clinical Strategy for LodgeNet Healthcare and a recognized expert on the strategic blending of technology and evidence-based patient education. Helen Koliner is a Senior Staff Attorney at LodgeNet. LodgeNet Healthcare offers the clinically integrated LodgeNet Interactive Patient Television System, designed to inform and empower patients in hospitals striving for excellence in care delivery.

²Final Rule, 75 Fed. Reg. ____ (July 13, 2010)(to be codified at 42 C.F.R. 412, 413, 422, and 495).

³ In order to accommodate industry concerns about the timeframe necessary to adopting and implementing HIT, and in recognition of the need to identify and study available technology in conjunction with the stated objectives

adoption urged by industry commentators, long-term planning will necessitate consideration of all criteria. All defined criteria, whether characterized as “core” or “menu” will become core requirements at Stage 2 and will be supplemented with expanded functionalities which are not ready for inclusion in Stage 1, but whose provision is necessary to maximize the potential of EHR technology.⁴

In the past months, as CMS and ONC struggled to complete the Final Rule for MU Stage 1, they have simultaneously laid inter-departmental foundation to define the feasible patient engagement requirements for the next stage. In so doing, they have raised specific healthcare challenges relative to patient engagement that will require a technological remedy: those remedies will ultimately translate into both opportunities and requirements for hospitals and providers.

Next Steps: Recognizing the Scope of Technology Objectives for Patient Engagement

The goals set forth by the HITECH Act that relate to patient engagement and the related objective of health literacy, understood against the backdrop of more than a decade of research on the benefits of patient-centered care, are ambitious but achievable. While CMS and ONC cannot forecast the specific criteria that may be contained in Stages 2 and 3⁵, the policy objectives are well-understood. In its April 20, 2010 meeting, the Meaningful Use Workgroup of the HIT Policy Committee (“MU Workgroup”) discussed the need to define criteria that will not only extend access to patient data to patients, but also deliver data in the proper context, at the proper time in the care process, and through technological tools that have the ability to facilitate patient control of care.⁶ In the June 4, 2010 hearing of the MU Workgroup, regulators, industry experts on health literacy, and patient education experts explored patient engagement and care from the perspective of the most vulnerable healthcare users: those with

in the HITECH Act, CMS and ONC adopted a three-stage approach to the roll-out of Meaningful Use. The First Stage focuses primarily on basic functions and information recordation. Stage Two and Three will focus on the nature and extent of adoption and use as measured against the ultimate objectives of healthcare transformation. For additional explanation of the phasing, see *Maximizing the Value of Meaningful Use Investments: Achieving the Patient-Centered Care Objective Through Interactive Communications Systems*, White Paper; Prepared by Gary Kolbeck (May 20, 2010)(hereinafter “Maximizing the Value of Meaningful Use Investments”)(available upon request).

⁴ In its introduction to the content of the Final Rule, CMS emphasizes that, although some functionalities are optional in Stage 1, “all of the functionalities are considered crucial to maximize the value to the healthcare system provided by certified EHR technology” and urge hospitals and providers “to be proactive in implementing all of the functionalities of Stage 1 in order to prepare for later stages of meaningful use.” 75 Fed. Reg. at ____ (emphasis added).

⁵ CMS and ONC will base the Stage 2 and Stage 3 criteria, in part, on “the impact and lessons of the prior stage when formulating a new stage.” Final Rule. 75 Fed. Reg. at ____.

⁶ Draft Meeting Transcript: *Creating a Vision for Engaging Patients and Families through the Meaningful Use of Health IT*, Meaningful Use Workgroup of the HIT Policy Committee (April 20, 2010), available at http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_11673_911821_0_0_18/2010-04-20_policy_mu_transcript_draft.pdf.

low health literacy. Their examination establishes the groundwork for defining “the recommendations that [the Meaningful Use Workgroup] make around meaningful use criteria for 2013 [Stage 2] and 2015 [Stage 3]”⁷ for ensuring that patient engagement tools address health literacy concepts. This month, the MU Workgroup will assess the population health dimensions of meaningful use, which will necessarily require consideration of the most-costly healthcare users, many of whom will be unreachable through highly technical, inaccessible, or educationally complex approaches to patient engagement. In the aggregate, in order to satisfy the policy goals required under the HITECH Act, meaningful use criteria will drive HIT adoption and use toward the following objectives:

- Ensure that the benefits of conversion to electronic health records offer patients the ability to define their designed health outcomes and control care decisions.
- Ensure that patient education through health IT provides patients the foundational knowledge necessary to meaningfully engage with care providers, and measures levels of understanding in order to identify the need for additional intervention.
- Ensure that HIT enables education in a manner and with the content that promotes population health goals.
- Ensure that HIT adoption reduces, rather than elevates the disparities in healthcare information access for low-health literacy populations.
- Ensure that HIT promotes improved health outcomes, increased patient safety and reduced healthcare costs through delivery of patient safety and education, both condition-specific and health-enhancing.

Achieving these objectives as a mandatory component of patient care will not depend solely on meaningful use, but Meaningful Use payments (and later penalties) offer a powerful incentive for HIT adoption and deployment now. The Department of Health and Human Services, the Joint Commission, and America’s Health Insurance Plans (a private insurance consortium) are collectively seeking requirements for patient education because of the cost-constraining effects of effective patient engagement. Strategically selected patient engagement tools will not just benefit healthcare payers. Meeting patient engagement objectives also aligns well with the cost-saving objectives of hospitals and providers.⁸ Technology that encourages patient interaction and automates education processes, increases operational efficiency and allows nurses to spend more time providing bedside care. Effective patient engagement unquestionably yields higher levels of patient satisfaction, offering a competitive

⁷ Draft Meeting Transcript, *Using HIT to Eliminate Disparities*, Meaningful Use Workgroup of the HIT Policy Committee (June 4, 2010), available at <http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_11673_911872_0_0_18/2010-05-04_policy_mu_transcript_draft.pdf>.

⁸ For an in-depth discussion of the economic benefits of patient engagement to hospitals, see *Maximizing the Value of Meaningful Use Investments*.

advantage in a healthcare market increasingly driven by consumer influence and transparency of data. Effective patient engagement at the point of care also produces better outcomes, reduces re-admissions and discourages litigation. The long-term benefits of patient engagement tools are critical to the transformational aspirations of the HITECH Act: technology that improves the bottom line of hospitals and providers will ensure the continued use of such technology when stimulus funds no longer present an independent incentive.

Overcoming Challenges to Patient Engagement through Technology

The efforts of CMS and ONC to achieve the patient engagement goals of HIT adoption and integration will not, and should not, occur in a vacuum. Technology that is affordable, understandable, and capable of delivering results across a broad cross-section of the population is more useful and relevant to the government's objectives than the availability of increasingly sophisticated and complex solutions that will limit the benefits of HIT to only those with extensive technological savvy and access. It is for this reason that the patient engagement criteria for Stage 2 and Stage 3 will be largely informed by the work undertaken by Agency for Healthcare Research and Quality (AHRQ) to understand and advance health literacy and population health.

Health literacy is defined as a “constellation of skills that constitute the ability to perform basic reading and numerical tasks that are required to function in the healthcare environment” and the ability to “read, understand, and act on healthcare information.”⁹ It is both perceived as the greatest challenge (as consumer ability, perspective, and privacy expectations differ across the population) and the essential element to healthcare transformation (as low-literacy healthcare users represent a large proportion of federal health costs). Successful patient engagement, and the associated benefits it will bring, depends upon the ability understand the informational needs of patients generally and the capacity to deliver information based upon the needs of a patient specifically. The ability to deliver information to patients in accordance with their individual capabilities and needs requires that any technological tools designed to engage the patient address the myriad and complicated limitations of most patients. Some of the most complicated needs-based issues relevant to the use of HIT as a mechanism for engaging patients include:

- Low-health literacy patients are less accessible to the healthcare provider community, and thus, opportunities for intervention and education (and opportunities to motivate interest in preventative care) are few.
- Low-literacy patients are less likely to benefit from highly technical communications and computer-based methods of interaction due to intimidation, comprehension capability and access.
- Low-literacy patients are less likely to make use of patient-initiated technology offerings.

⁹ *Literacy and Health Outcomes*, Evidence Reports/Technology Assessments No. 87, Prepared for AHRQ (Jan. 2004).

- Low-literacy patients are more likely to be stymied in their use of technology-based education and information delivery if confronted with useability issues and favor communication delivered via familiar media conveyed in a setting where assistance is readily available.

In evaluating the relative benefit to patient-facing technological tools designed to inform and engage patients (about both their health and about their healthcare), three things are clear: a) not every person will have the access or know-how to use a computer; b) existing educational tools (i.e. written discharge instructions) are inadequate to capture the attention of most patients; and c) delivering patient care and clinical information through systems designed to serve the needs of providers or payers will be inadequate for many patients, particularly low-health literate populations.

Conclusion: Delivering on the Promise of “Meaningful” Patient Engagement

Effective patient engagement will require a multi-dimensional approach, with a focus on delivering health information at the right time in the care process, in the proper context to motivate and sustain care plan compliance and lifestyle modification, in the right language with content tailored to the capacity of the patient, and through the right delivery mechanism.

Engaging the Patient at the Right Time

Some patients, particularly those that are younger and affluent, will be prepared and capable of benefitting in the short term from healthcare information available through a computer upon their own initiative. But many patients will be excluded from the benefit of technology adoption unless the technology is delivered at the point when the patient is present, focused on his or her personal health, and has available a support system – friends, family, or an advocate from the healthcare delivery team. For these patients, an essential point of intervention for HIT is at the hospital or community-based provider. Particularly for patients with low-health literacy or those lacking adequate (or any) health insurance, a hospital or clinic is the only point of contact with the healthcare system. While hospitals and clinics cannot alone close the information gap, they can maximize the opportunity to both communicate core information using optimally-designed delivery tools and initiate a support-delivery program to engage and motivate the patient beyond the hospital setting. A key to driving use of patient-facing tools outside of the hospital setting, particularly for those with low health literacy, is an explanation of and introduction to those technological (or alternative) tools, offered while the patient is still in the hospital and accessible to care providers. Once patients return home, to the extent that they have the access and computer savvy, they return with improved perceptions as to the value of the online content and are far more likely to use it. Ultimately, technology affords the ability to offer healthcare support 24/7, or to export patient support through technology directly to where the patient resides, but neither can be achieved if patients lacks the access to technology or the skills to use them at all.

Engaging the Patient with the Right Context and Delivery Tool

Patient education – delivered when the patient is ready and most able to comprehend it – is essential to positive health outcomes. When communicated through technology, it must be offered in a setting that

a) accommodates the ability of the patient (both their health literacy and their physical state), b) is capable of repetition and interaction to ensure that patients can comprehend the information provided to them; and c) is delivered in an atmosphere that minimizes the deterrent effects of overly formal or overly technical interactions. Lack of understanding is both a function of a patient's inability to comprehend information provided to them and their inability to initiate or extend interactions with their busy care-providers. In order to facilitate genuine understanding and care control, patients must be elevated in their status as a care team member (by understanding the role of everyone on their care team and understanding their care options) and capable of seeking and controlling the flow of information separate and apart from in-person contact. Used in this manner, technology reduces rather than heightens the divide between patient and care provider, and patients are empowered to exercise their status as a team member to make sure that they are fully informed and can ask questions with confidence.

Patient education is often delivered to the patient when it fits into the nursing or care team's workflow. Although this is understandable, this means that the education is delivered when the patient is under the influence of medication that does not allow for full comprehension or retention, has visitors, and/or is preparing for discharge with little time to comprehend or ask questions. One technological intervention that offers the proper context for informational delivery is interactive television. The use of interactive television as a patient education engagement tool allows the patient and family to review patient education at the right time for them, or for patient information that is necessary at a particular time in their care (i.e. in order to promote safety leading up to an overnight stay, or offering information about nighttime risks such as precautions to avoid falls when going to the restroom at night) can be automated for delivery at the most critical time. Using technology also allows the patient to repeat the education if they choose and to share important educational information with family who will assist in their care and safety. It is one mechanism to ensure that education that is available to the patient and family throughout their hospital stay allows sufficient time for questions and follow-up and whose delivery can be offered through a mechanism that also communicates provider and care choice information consistently.

Engaging the Patient with the Right Content

In order for patient education content to be meaningful to the patient and family, and to drive the best possible patient comprehension and retention outcomes, it needs to incorporate simple medical language, an array of teaching methods, as well as address a variety of learning styles. To accomplish this, the content should be written at a 6th to 8th grade reading level, include graphics, text, pictures and demonstrate individuals interacting and include these styles as consistently as possible. Because video is capable of supplying different teaching methods such as "Ask Me Three" and "Teach Back" and address the needs of the visual, auditory, reading and relationship learner at the same time, it can be a very effective delivery method for patient education. Additional education components that are critical to effective patient education (and can be accomplished with the use of video) are the inclusion of culturally meaningful attributes as well as the use of dialogue between patients and caregivers. Many hospitals are dealing with a high incidence of nurse turnover and PRN (*pro re nata* or "as needed") nursing; therefore it is many times unknown if the hospitals important messages are being delivered

consistently. Video can deliver a succinct message that focuses on essential information that is consistent with the healthcare industry best practices.

Patient education must also address a patient's current stage of care. For acute care settings, education must focus on diagnosis, treatments options, procedures and recovery and rehabilitation. ARQH's review of studies relevant to the use of technology for low health literacy populations yielded an interesting finding: the single biggest predictor of a patient's effective use of technology-based educational tools was the patient's perception that the content was relevant and useful to his or her individual care.¹⁰ Patient education is most effective when it includes a specific action-orientated and succinct message that is most important to their current well-being.

Engaging the Patient through the Right Medium

Some forms of technology, without a foundational explanation as to the value to the patient and method of use, such as computers, can be intimidating for many patients and set up a roadblock to effective patient engagement, especially while still in the hospital. If patient engagement is to be effective, the patient-facing component of HIT must be familiar, accessible, and understandable to all patients, regardless of socio-economic background and literacy level.¹¹ The appropriate medium will vary depending upon the needs, location and preferences of a patient, but in general, those delivery devices that are commonly used by patients in non-healthcare settings are more useable for most patients in the healthcare setting. The mechanism for delivery cannot intimidate patients (particularly given that intimidation is an identified deterrent for patient engagement in the healthcare setting already) of any age, literacy level or cultural background. The television is one effective delivery method for consistent patient engagement and patient education. As long as patients are physically capable, they are comfortable using a remote to access what they need and when they need it on a television. It is understood in healthcare, that many individuals who are hospitalized use the television as a common comfort. When partnered with the right content for services, entertainment, safety, relaxation and education the television offers an optimal method of delivery for patient engagement.

¹⁰ "The most frequent barrier to consumer use of interactive health IT across studies we examined was the lack of a perceived benefit." *Barriers and Drivers of Health Information Technology Use for the Elderly, Chronically Ill, and Underserved*. Evidence Reports/Technology Assessments, No. 175, Prepared for AHQR (Nov. 2008)(hereinafter "Barriers and Drivers of Health IT").

¹¹ Studies have shown that the familiarity and usability of technology affects patient benefit and that "patients were less likely to use systems requiring access to equipment or technology that did not fit seamlessly into their normal daily routines." Technical difficulties and access are also substantial barriers to effective use of HIT. See *Barriers and Drivers of Health IT*.