Blurring the Lines
Who Owns the Medical Data Home?

Healthcare IT is evolving from a physician-centric model to a collection of disparate patient-centric applications where all constituents contribute to a mélange of databases that serve people and processes in many different ways. By electronically diffusing the traditional patient record, this new model blurs the long-established medical data home. The opportunity to connect physicians, patients, providers, employers and insurers will inevitably transform health informatics as we know it today. But, there are some interim consequences that must be acknowledged.

Clearly, there are implications regarding who controls patient data. Further, the concept of the traditional medical data home may be anachronistic in terms of who controls and analyzes patient data, how it is processed and where it is stored. We are already seeing this diffusion take form. Connecting outside pharmacy databases with medication reconciliation processes; pricing transparency efforts to lure smart healthcare shoppers; home monitoring applications; self-service scheduling; portable health record applications; physician-patient virtual visits; retail-based clinics; and other patient-centric application developments will primarily be driven by the need for speed, efficiency and convenience for each health encounter—to the detriment of the continuous record of care.

For example, the applications that physicians are beginning to use save time, money and in some circumstances, improve patient care. At the same time, these applications ultimately weaken the physician's claim to the medical data home. For example, on the surface a “free” e-prescribing application looks like a simple, inexpensive, and easy tool to save docs time writing and refilling prescriptions. However, when you look deeper insurers and other companies fund these applications because of the data value.

Pharmacy managers, hospitals, physicians, insurers, drug companies and patients all benefit from e-prescribing, but, who controls the data? Physicians use their list to keep an active medication profile, protect against adverse interactions, improve patient compliance and expedite the medication order. Insurers use the data to ensure that medications are on an approved formulary and measure the drug's efficacy as it is related to outcome. Other companies use the data to sell it back to providers to improve medication reconciliation accuracy. And somewhere along the line drug companies want access for marketing, research and development.

Hospitals want a part as well. Many hospitals are increasing their IT support and offerings to help physician offices automate. Practice management systems, electronic medical records, clinical data exchanges, E & M coding services and PDA support are just some of the expanded IT offerings many hospitals provide to physicians. As a byproduct, an unintentional result is blurring the medical data home. Now that physicians and hospitals are forming data sharing partnerships, information formally held in physician offices is now promulgated from provider to provider to hospital, etc. So, who owns the medical record? The traditional hospital record is now accessible at any office. The traditional ambulatory record is now accessible from other locations as well. Each contributing entity along the way provides information updates to the record in some shape or form. Now that the primary care physician, specialist, hospital, laboratory, insurer, diagnostic provider, etc. all have an equal stake in this diffused patient record, the medical data home blur continues.

Individuals also are demanding control. With the introduction of health savings accounts, the consumer-driven medical payment movement is forcing providers to release more control over patient data. As people become more accountable for their own healthcare, they will need more access to their medical information so that they can manage cost and ultimately make better healthcare decisions. This will force more providers to develop home monitor-
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The advances in information technology will continue to force us to re-evaluate the efficacy of traditional processes. The future of healthcare delivery will continue to pressure providers to control costs and improve quality. To do this, providers will ultimately need to prove that they can provide a better outcome for the members of the community they serve. Being able to measure whether patients fully recover, return to normal activity, and regain a reasonable quality of life will require well-coordinated patient data collection and analysis. This process must allow for multiple data entry points but at the same time, offer a reliable mechanism for information control, accuracy, and continuity.

RHIOs, health information exchanges, national patient identification efforts and other medical data standards hold promise for interoperability, data consistency and expanded access. But these developments are not by any means a panacea. Even at the “advanced EHR analytical state” (see Parente, et al on page 42), patient data discovery improves but data validation and recollection is not fully addressed.

As change agents, IT leaders need to face a stark and immutable fact: we have ushered in a new era of technology to improve access to patient data but we haven’t built a common thread. The concept of patient relationship management (PRM) seems like a promising start (see Oinas-Kukkonen, et al on page 24) but again only addresses one piece of the puzzle. We need to define the

ing programs and personal healthcare records that are portable and accessible by any caregiver, provider, insurer, employer and patient in order to facilitate the provision of care. This movement is also opening up opportunities for Internet-based companies to provide patient-centric data applications. For example, Google is positioning itself to be the depository for an individual’s electronic medical record.

Further, virtual visits will begin to release even more control to the patient. Smart healthcare shoppers will want convenient access to care providers through virtual visits, coupled with the ability to schedule their own appointments via easy-to-use Web-based applications. Insurers also are seeing the value of improved member access and convenience in that they can now mitigate payment for a full office visit by reimbursing physicians for less expensive e-consults to treat routine cases. More medical data home blur.

The disintermediation of trusted caregivers by busy individuals continues to deteriorate the traditional patient-physician relationship. New technologies may satisfy the individual need for speed and convenience, but it will further fragment the delivery of care. Discontinuous care has always been a problem but as we continue to blur the medical data home it will get worse before it gets better. What worries me most is that there is no arbiter of an individual’s record of care. Not that there ever was, but at a minimum the traditional hospital and ambulatory records were complete and fairly well controlled diaries of patient care activity in either setting. Now that the patient record is a disjointed collection of inputs and outputs from various sources, there is a lack of data ownership, questionable data accuracy, and untenable data controls with regard to security and confidentiality.

Technology solutions are not working as planned. Physician-to-nurse and physician-to-physician handoffs have never been more disjointed. Some doctors are using handhelds to IM or e-mail information to other providers with terse care instructions. They need these tools to expedite the communication process so they can handle more patient volume with fewer interruptions. In the process, these light-speed communication bursts are often misunderstood or missed altogether. Physicians complain that they can never get a hold of a nurse. Nurses complain that they never see the physicians. Many long for the days when hospital rounds were opportunities for formal face-to-face handoffs for all caregivers, but living in both worlds is today’s reality (see Fitzpatrick, et al on page 34).
new “virtual” medical data home with a governing process that can monitor, verify, and validate all constituent elements of dispersed patient data. This new process must ensure that every data element is restored to a reliable and comprehensive patient record at the end of each episode. I believe this will be our biggest challenge.

The Summer 2008 issue of JHIM contains an assorted collection of special-interest columns and articles on topics and applications that focus on the patient. These include articles on home monitoring technology, patient relationship management and wireless remote monitoring. These contributions and case studies provide useful knowledge and analyses on contemporary patient-centered applications.

In addition, special-interest columns and articles provide valuable information and insight on the following topics: The 2008 Davies Award Winners, health information exchanges, moving from data-driven systems to workflow-driven systems; and other original contributions.

Finally, I would like to thank the professional staff at HIMSS, the peer reviewers and the editorial review board for all the behind-the-scenes work that goes into producing each issue. JHIM continues to look for new ways to provide relevant, important and useful information for healthcare professionals, academicians and HIMSS members. If you have any comments or suggestions that could help us improve in any way, please feel free to e-mail me at rlang@dh.org.

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