Thought Leaders

The Year of the EHR?

By C. Peter Waegemann

Some 40 years ago, the vision for electronic health record (EHR) systems was born. At the time, health informatics experts thought that the obvious benefits of the EHR would lead to adoption within a few years, but in reality, little happened.

In 1991, the Institute of Medicine's report on computer-based patient records created great interest and encouraged many companies to invest in new products, only to discover that healthcare wasn't ready for the electronic age. Now, EHR systems are again at the top of the list for many organizations. This time, all signs indicate that we will make considerable progress. What has changed?

The original vision of the EHR encompassed a mainly virtual, computer-based medical record that would include all information, clinical and administrative, and would cover all practitioners involved in a person's healthcare over that patient's lifetime, including all medical specialties and even prenatal and post-mortem information. Such a vision would require standards of full interoperability consisting of complex system interoperability, terminology and architecture, in addition to a number of functional requirements.

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Among many of the core requirements would be a national patient identifier, which continues to be politically unacceptable. As it becomes clear that interprovider interoperability cannot be achieved in the foreseeable future, one must look for alternatives to achieve interoperability.

Exchanging Relevant Information
The most important benefit of EHR systems is to minimize those healthcare encounters where practitioners are uninformed about a patient's history and recent treatment. A new, practical project has been supported by the standards development organization, ASTM International, in cooperation with the Massachusetts Medical Society, HIMSS (the Health Information Management and Systems Society), the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics and the Center for the Advancement of Electronic Health Records. These organizations have developed the continuity of care record (CCR).

The CCR is a core data set consisting of the most relevant and timely facts about a patient's condition. Briefly, these include patient and provider information, insurance information, the patient's health status (e.g., allergies, medications, vital signs, diagnoses, recent procedures), recent care provided, recommendations for future care (i.e., a care plan) and the reason for referral or transfer.

This minimum data set will enhance the continuity of care by providing a method for communicating the most relevant information about a patient and providing both context and support for the EHR through extensions, which will address additional content for medical specialties, disease management and payer-related information.

The three medical associations promoting the CCR represent more than 150,000 physicians. It is the first time in the history of EHR systems that medical associations are fully behind the implementation of the EHR. AAFP has developed a program around four principles for EHR systems: affordability, compatibility,

interoperability and data stewardship. The latter indicates a clear departure from previous visions of centrally stored health information to a network of federated databases maintained by providers.

Drivers
Finally, there is acceptance in the healthcare community of the need for information technology that reduces cumbersome and outdated paperwork, makes healthcare processes more efficient, reduces medical errors, decreases costs, guides practitioners in the care process and improves quality of care. At the same time, we are seeing movements toward a national health information infrastructure.

There are also a number of practical projects that will drive EHR systems further.

Patient safety is the No. 1 motivator, as 21 states have legislation in place, and the Medicare Reform Act requires e-prescribing standards (including signature standards) to be recommended by the National Committee on Vital and Health Statistics. Large providers also are considering CPOE systems, and small healthcare providers are increasingly implementing mobile order entry systems.

e-Prescribing, order entry and the CCR will be the key drivers in the near future. They are coupled with current plans of the government and other payers to implement incentives for those providers who have EHR systems. In addition, return on investment is more easily shown in a number of component applications, particularly in the mobile healthcare field.

What To Expect
Standards and relevant components of EHR systems are being developed and implemented, and these will impact various healthcare domains. Hospitals, of course, will continue their complex journey toward EHR systems, mostly driven by patient safety considerations, efforts to achieve higher efficiency and marketing considerations.

But the real movement is in the ambulatory care field. More than 150 vendors compete in serving the practitioner community, of which 75 percent are small offices of one to three practitioners. Driven by indications that incentives or disincentives for EHR systems will eventually be reality, many small providers are starting to consider implementing them. This is coupled with the real benefits a provider can expect from the CCR.

Where return on investment has been difficult to show for EHR systems, the CCR can have a tremendous impact on every practitioner who will have access to a patient's allergies, medications and other relevant information.

Practitioners are being encouraged by their professional medical associations to implement EHR systems. If between 30,000 and 50,000 providers would move to EHRs within the next 18 months, they would affect demand for greater connectivity and computerization in hospitals and other healthcare arenas.

Another significant domain is the long-term care field. The American Home Health Association is encouraging its 18,000 members to implement computer systems with the CCR. When nursing homes and assisted living facilities always have the relevant core data for patients, the quality of care and patient safety will increase.

For 40 years, people have been waiting for the breakthrough of EHR systems. The current combination of driving forces, standards developments and technological progress has finally brought us to a point where substantial progress can be made on this road.