From the wearing of white coats to the reciting of the Hippocratic Oath, tradition is important in medicine. But when it comes to medical information, traditional is just another word for outdated. In both business and leisure activities, our society demands lightening-quick, fingertip access to information. This philosophy has had a slower translation to medicine.

According to the Centers for Disease Control and Prevention’s most recent report on the subject, less than a third of the nation’s hospital emergency and outpatient departments use electronic medical records (EMRs), and only about a quarter of office-based physicians use either full or partial EMRs.

As the Medical College of Wisconsin partners with Froedtert & Community Health to implement an electronic medical records system, it is plain to see the challenges that may be hindering nationwide realization of EMRs, but the benefits are clear and compelling.

The Medical College and Froedtert began converting paper records to electronic in 2003, following a visioning process that started in 2000. We are using a Madison-based firm—Epic—and our vision is for an information system that spans ambulatory clinics, the emergency department, inpatient areas, and the intensive care unit. Through the leadership of Rick D. Gillis, MD, associate dean for Clinical Informatics and assistant professor of Medicine, our first clinic went live with EMRs in October 2004.

Throughout the implementation to this point, 1 of the most pervasive challenges is that of change management. Many physicians have been practicing a certain way for years. We are asking them to use new tools, and not everyone is familiar with them, from the computer interface to the technical nuances. A strong commitment to training is required, and scheduling must initially be adjusted to compensate for the loss of speed that accompanies acclimation to a new system.

Additionally, not all physicians practice the same way – particularly across specialties. Where an internist needs access to labs, such as blood work, an orthopaedic surgeon wants simple access to X-rays. Flexible tools in the system accommodate different needs, but compromise is also necessary to establish efficient workflows.

Implementation of EMRs is costly and cumbersome in more ways than 1 because of the decrease in initial productivity and the need to maintain dual systems (electronic and paper) throughout the conversion. We also have challenges that are unique to us as 2 separate organizations implementing a system jointly.

The Medical College and Froedtert & Community Health constitute a complex environment, especially due to multidisciplinary centers like our Cancer Center, our many subspecialties, and tertiary care. Our patients weave in and out of Medical College and Froedtert clinics, Froedtert Hospital, and Community Memorial Hospital of Menomonee Falls. We are committed to decreasing fragmentation in care and getting the right information in front of the right physicians at the right time. This is where the electronic medical record begins to pay off.

The ability to share information and capture discreet information is among the obvious benefits of EMRs. They allow for improved communication between the physician and staff, between the physician and patient, and between the physician and referring doctors in the community. For primary care doctors who refer cases to Medical College specialists, EMRs make it easier to get information on their patient. Similarly, they help our faculty clinicians receive timely and comprehensive information on incoming referrals.

With EMRs, we are better able to track physicians involved in a patient’s care, and can more easily transfer information between doctors in the system. These capabilities all add value to our ongoing efforts to assess and improve clinical quality.

The evolution of the EMR will allow us to build in practice guide-
lines or clinical pathways to reduce variation in medical practice and encourage the use of front-loaded best practices for patient care. Epic forces physicians to be more structured in how cases are described, using a standard vocabulary for diagnosis, for example. Patient safety is also enhanced because EMRs help organize information such as medication lists so negative interactions can be avoided.

The standardization of electronic records also allows us to do more reporting on patient care. This helps the College’s academic mission to investigate outcomes from various treatments more efficiently since we will have less variation in care and be able to better judge the value of our treatment decisions. Decreased variation is also tied to decreased costs – a concern for providers and patients.

As our conversion moves closer to completion, I look forward to the future efficiencies our profession will enjoy. Currently, 40 Medical College and Froedtert clinics are live on the Epic system, with others, such as the Emergency Department and inpatient areas, starting up in phases. Our patients are all identified in a master index in the system; our scheduling system is up and running, as is our digital archive of medical images and radiology results.

Like all technology, there will be continuous upgrades. Some tools may enable patients to access certain parts of their medical record, such as allergy lists, medication refills or vaccination records through secure portals. Of course, privacy and confidentiality are a top priority and require vigilance as new tools are implemented.

As an industry, the full benefits of electronic medical records will never be realized until interoperability is resolved. Compatibility between different EMR systems is more the exception than the norm. Just like physicians follow standards for practice decisions, the birth of standards for vocabulary and operability in electronic records will position us to provide patients with the best possible care.

The complaints surrounding implementation of EMRs often center on cost and effort, but the favorable aspects are in many cases immeasurable. More important to consider is that without the EMR, the physician practice and the hospital will not be able to function in the emerging health care network. Those without EMR may be dropped from networks and will not be leaders. The question becomes, can we afford not to position an EMR across our physician and inpatient practices? It is good for patients’ care, and it is good for the management of the practice of medicine.
The mission of the Wisconsin Medical Journal is to provide a vehicle for professional communication and continuing education of Wisconsin physicians.

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