

Involve Office Staff in Planning Switch to Electronic Records

BY MARY ELLEN SCHNEIDER
Senior Writer

BOSTON — To successfully implement an electronic health record system, set clear and specific goals and involve your clinical and administrative staff in all of the planning, Jerome H. Carter, M.D., advised at a congress sponsored by the American Medical Informatics Association.

"You have to plan," said Dr. Carter, chief executive officer of NT&M Informatics Inc., Atlanta, and the editor of "Electronic Medical Records: A Guide for Clinicians and Administrators," published by the American College of Physicians.

As many as half of complex software implementations fail, Dr. Carter said, and usually for the same reasons: vague objectives, bad planning and estimation, poor project management, insufficient involvement by senior staff, and poor vendor performance. "This is not the time to experiment with the latest gadgets," he said.

Implementation doesn't start when the organization purchases the EHR products, but, rather, as soon as the group accepts the idea of moving from paper to an electronic system, Dr. Carter said.

The first step is to understand the current problems within the practice, to figure out how the practice should function, and identify what keeps the practice and its current system from working in an ideal way. Potential EHR buyers should spend at least 3-4 weeks canvassing everyone in the practice to find out the problems and goals and to create a statement to capture those ideas, he said.

The next step is a systems and process analysis to be conducted by clinicians and executive management. This is a chance to figure out if an EHR will help to solve current problems, he said.

The executive management should also assess everyone's job functions. Adding an EHR to a practice will change job functions, and it's important to make sure that all the important duties are still covered, Dr. Carter said.

Once this backgrounding has been done, a request for proposals based on practice needs can be created. When reviewing products, it's important to have a designated project manager whose only job is to shepherd the project through each stage. Senior

executive support—both administrative and clinical—is key, since that group will make the final decision on a system. And staff input is essential, since these are the people who really know what goes on in your practice.

Spend time figuring out what resources will be needed in terms of new personnel, technical sup-



Implementation of an EHR system starts when staff members accept the idea of moving away from a paper system.

port, security, and equipment. "Without that level of estimation and planning, it's very likely you'll be in a situation where you need a critical person and that person is not there," he said.

Consider hardware issues. For example, it's important to consider the types of input devices that will be used, such as tablets, desktop computers, or personal digital assistants (PDAs).

Don't forget to factor in security issues, Dr. Carter advised. For example, practices should be sure that any system they buy is compatible with the Health Insurance Portability and Accountability Act of 1996.

There are several ways to roll out a system. For example, a practice can test all the features at once through a pilot at one site in the practice. Another option is to first phase in implementation of the most important features across the entire organization. Or a practice could opt to try a "big bang" rollout where all features are implemented across the organization at once. This approach is generally more successful in smaller practices with only two sites and fewer than 10 physicians, Dr. Carter said.

Regardless of the type of rollout, ongoing staff training is critical to the success of the new system. It is not a one-time event, he emphasized. ■

Interoperability of EHRs Is Critical But Remains Elusive

BOSTON — Interoperability is key to the success of electronic health records, but there are barriers to sharing data between systems, said David Brailer, M.D., national coordinator for health information technology.

The major challenges include standards harmonization, unclear data control policies, a lack of uniform security practices, the inability to ensure that products perform as advertised, and the lack of a business model around interoperability, he said.

"At the very basis of this—kind of the DNA of the interoperable electronic health record—is the emergence of harmonized standards," Dr. Brailer said at a congress sponsored by the American Medical Informatics Association.

Many organizations are involved in developing standards, but there isn't a process yet for harmonizing two conflicting standards. Nor is there a unified release schedule for standards so that the industry can build investment plans, he said.

Also missing is a way to provide input into the standards process. There is no mechanism for taking a problem in health care and distilling that into requirements that could be used by organizations that develop standards. "Problems don't come well packaged into a standard," Dr. Brailer observed.

Even with standards, many other factors influence interoperability. One less well-known obstacle is that health care lacks even a vocabulary to talk about the control of data. Deciding on a set of terms and their meanings will be essential to figuring out who decides if information flows from point A to point B, in what way, and who will be notified.

Security standards pose another barrier. Currently, two health care organizations can be compliant with the Health Insurance Portability and Accountability Act of 1996, yet have security practices that prevent them from sharing data. For example, one organization may adopt user names and passwords for authentication, while another uses a biometric thumbprint.

To address this, security brokers or other third parties could navigate between two systems. Some states have talked about creating more requirements for uniformity of security practices. "This is a profound barrier to our ability to be interoperable, and standards won't address it," Dr. Brailer said.

Physicians also need to be able to know if the system they purchase will deliver on the vendor's promises of interoperability. The industry took a step in that direction with the formation last year of the Certification Commission for Healthcare Information Technology, which will certify that EHRs and other products meet minimum standards. This work will help EHRs become "plug and play" technology in the future, and will take some of the risk out of the marketplace, he said.

—Mary Ellen Schneider

EHRs Did Not Improve Diabetes Care in Study of 54 Practices

BY DAMIAN McNAMARA
Miami Bureau

NEW ORLEANS — Electronic health records did not improve physician adherence to evidence-based diabetes guidelines in a study of primary care practices.

The 37 practices without electronic health records (EHRs) provided equal or better diabetes care than the 17 with the technology, "but there is much room for improvement in both groups," Jesse C. Crosson, Ph.D., said at the annual conference of the Society of Teachers of Family Medicine.

Information technology is recommended to improve quality of care, but

EHR capabilities are unevenly used in primary care. Successful integration of EHRs depend on organizational factors and how well physicians communicate with each other, said Dr. Crosson of the department of family medicine at New Jersey Medical School, Newark.

Practices strongly oriented toward patient care, characterized by relatively open scheduling and physicians who are easy to contact, are more likely to optimize use of EHRs. Practices with a greater focus on money and the bottom line, and with longer wait times for patients, tend to integrate EHRs less well, he said.

The researchers focused on type 2 diabetes because clinical care is complex and

treatment guidelines are interrelated, Dr. Crosson said. He and his associates reviewed the charts of 1,080 randomly selected diabetes patients—20 patients each from 54 primary care practices in New Jersey and Pennsylvania. There were no significant differences between EHR and non-EHR practices in terms of number of physicians, number of exam rooms, years in practice, or type of practice.

There were no statistically significant differences in diabetes management between practices with or without EHRs. In multivariate analyses, nonEHR practices did better in assessment, medication management, and outcome targets. The targets were LDL cholesterol below 100

mg/dL, hemoglobin A_{1c} below 7%, and blood pressure below 130/85 mm Hg.

All practices in the study could do better regarding diabetes assessment, Dr. Crosson said. Overall, 52% of participants met three out of these five criteria:

- ▶ HbA_{1c} tested in the last 6 months.
- ▶ Microalbumin tested in last 12 months.
- ▶ Smoking assessment documented.
- ▶ LDL cholesterol tested in last 12 months.
- ▶ Blood pressure assessed at every visit.

The study was retrospective, so there could have been selection biases. Also, "we were really limited to what was in the medical record. We do not have income, race, or insurance status," he said. ■