

# How electronic records work for three internists

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By [Phyllis Maguire](#)

PHILADELPHIA—For years, physicians have been waiting for electronic medical record (EMR) software to arrive. But according to several practicing internists who spoke at Annual Session, the EMR is already here.

At an Annual Session presentation, "Electronic Medical Records in Private Practice," three veteran users of electronic records software explained how they have found EMR technology to be an indispensable clinical and business tool. Daniel C. Davis, FACP, a practicing internist and the medical director of clinical informatics at Honolulu's Queens Medical Center, told the audience that he has been using computers in the exam room for more than 15 years. He claimed that EMR technology has finally matured enough to support even doctors who aren't computer-savvy.

While he acknowledged that installing electronic records software took substantial effort five years ago, he said that today's technology "is really beginning to catch up with clinicians' needs." His practice is currently switching to MedicaLogic's Logician system, which Dr. Davis estimated will cost \$1,300 per month for licenses for four physicians and four staff members. (The monthly fee includes upgrades, system maintenance and amortized costs for the central system.) The practice will also initially invest about \$8,000 to purchase hardware such as workstations, printers and wireless networking technology. Dr. Davis pointed out that his practice will save roughly \$10,000 by using some current hardware such as workstations and a server.

"There's a dollar cost and an effort cost," Dr. Davis said, noting that physicians should plan to spend six months to get completely comfortable with electronic records software. To accelerate that process, Dr. Davis said physicians should look for systems that have fast screen "flip speeds," a term that refers to how quickly new data appear on the computer screen. He also suggested looking for a system that is easy for novices to use. Some systems, for example, make patient records look like paper charts with tabs that guide users to other files. Each tab links users to familiar categories like lab results, progress notes and imaging reports.

Dr. Davis also emphasized that physicians using EMR software need what he called "the proper exam room choreography. What works best for me is developing a triangle relationship where I sit and face the patient directly to maintain eye contact," he said, "but we both can easily look off to the side to see information on the computer monitor." Dr. Davis also uses a wireless keyboard to give himself more mobility when he's talking to patients.

Dr. Davis said he expects his new EMR system to save his four-physician practice up to \$3,000 a month in transcription costs alone. The system helps physicians document patient visits through templates that contain much of the information they need to record. "We're being pushed to provide and document better quality of care at a time when reimbursements are falling and overhead is going up, so we have to do things differently," he said.

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Panelist Sarah T. Corley, FACP, one of three primary care physicians with Internal Medicine Associates in Arlington, Va., said that she has used Practice Partner software from Physician Micro Systems Inc. for six years. Her practice initially paid roughly \$30,000 for software and licenses, and it now pays \$3,000 a year for upgrades and support. Dr. Corley said she looks at that money as well-spent and outlined the advantages she has gained from electronic records software:

- **Ease of entry.** "You only have to enter information once," Dr. Corley said. When she enters a prescription in the medication section of a patient's EMR file, for example, that information is automatically entered into the progress note. Vital signs entered in the progress note are automatically entered in the vital sign section, making it easier to keep track of chronological data. Her progress note template automatically enters patients' age, sex, medications and allergies, as well as their last cholesterol, blood glucose, weight and blood pressure numbers.
- **Centralized patient information.** The electronic record software makes it easy to locate X-rays and medication lists or to search patient information by phone numbers, text patterns or chronology.
- **Charts and graphs.** EMR software generates graphs and charts that allow physicians to analyze patient data. Dr. Corley displayed a graph she had given to a diabetic patient that showed a dramatic correlation between the patient's weight gain and her glycohemoglobin level. "Graphs and charts bring information home to them," she said. "Patients often say, 'I didn't realize that there was such a close relationship.'"
- **Lab data.** Lab data are downloaded daily and generate a lab report with highlighted abnormalities. High values, such as elevated cholesterols or blood sugars, appear in red, while low ones--for hemocrits, for instance--appear in green.
- **Preventive procedures.** Dr. Corley said that electronic record software can track how many patients have received mammograms or cholesterol screenings.
- **Prescriptions.** Dr. Corley uses her EMR software to print prescriptions, track contraindications and manage refills, check formularies and drug interactions, and search for more cost-effective alternatives. Her software vendor updates the drug interaction database quarterly.
- **Customized patient handouts.** Instead of storing print brochures in her office, Dr. Corley gives patients computer-generated information on health conditions and treatments. "I use this function every day, printing out patient information as I need it," she said.
- **Images.** Her practice can download images such as ECGs, as well as dictated material like histories and physicals, discharge summaries and pathology and X-ray reports.
- **Review and forward functions.** The software's review bin keeps track of physicians' unsigned progress notes, while the forwarding function speeds up workflow within the office. For instance, the receptionist can electronically route a request for a prescription refill to Dr. Corley, who then forwards the message to a nurse. The nurse then calls a pharmacist and returns the request to Dr. Corley to have it signed and recorded in the patient's file.

One issue her practice has faced is how to safeguard patient information in case of a disaster. The practice's data is backed up on tape each day, and tapes are sent to offsite storage once a month. Dr. Corley said she also keeps a tape at home in case of a fire at the office, but she added that she has never needed to pull any data from tape.

Dr. Corley said that the biggest drawback to the software is the fact that most other physicians don't yet use the technology. As a result, her office must scan information sent from other physicians into its system, a job that the two receptionists handle.

Panelist Patricia L. Hale, ACP-ASIM Member, demonstrated several features of the EMR she created for Adirondack Medical Associates in Fort Edward, N.Y., where she is one of four physicians and four nurse

practitioners. She said that one of the system's most convenient features is voice recognition, which allows her to dictate notes directly into her electronic record software.

But Dr. Hale cautioned physicians to put any voice recognition system through its paces before making a purchase. She pointed out that physicians with accents can expect to spend more time training a voice recognition system. Dr. Hale said that state-of-the-art systems can now handle only one open voice file at a time, but that may change as technology improves.

The panelists also discussed Internet-based medical record systems, which can generate notes and provide evaluation and management codes. A big advantage of these new Web-based systems is that they cost much less than systems that must be installed on hardware in your office; physicians can subscribe to MedicalLogic's Logician Internet, for instance, for \$99 a month.

Dr. Davis cautioned, however, that Web-based systems typically lack many features of traditional packages, such as the ability to generate prescriptions, integrate with billing systems and provide interoffice e-mail. "They are an excellent way for physicians to get their feet wet with the EMR process," he said, "but they don't do as much in the way of patient management or office work flow."

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