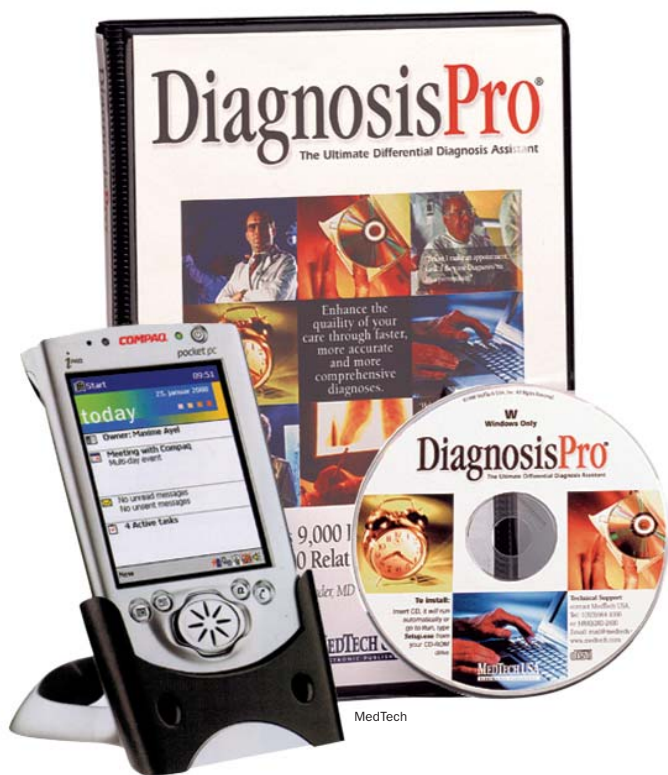


Clinical guidance systems rely on patient information

**Physician order entry remains
the key to decision support**

BY DAVID FRABOTTA



DiagnosisPro 5.0 catalogs about 10,000 diseases and 25,000 findings.

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IT MEANS DIFFERENT THINGS to different people, but clinical decision support is creeping into provider systems. Physicians are warming to the idea and beginning to acknowledge the benefits of comprehensive decision support, but adoption remains slow at best. According to Gartner, about 3% of providers use a comprehensive clinical information system, complete with decision support, electronic medical records and the administrative modules that tie the point of care into the back of the house.

Plagued by awkward interfaces, unproven technology, high prices and poorly integrated workflow procedures, an integrated IT structure has been just out

of reach for most networks and practices.

“Some organizations are implementing decision support based on the market leading them that way and blind faith that this is going to pay off in the long term. Others are a bit more reluctant, waiting to see how they pay off elsewhere,” says Brian Raymond, senior policy consultant for the Kaiser Permanente Institute for Health Policy. “There is not quite enough empirical evidence out there right now to convince organizations that this is a foregone conclusion, but it’s going to happen sooner or later because it is going to affect their bottom line in terms of their effectiveness and customer satisfaction.”

Tens of thousands of physicians currently are using some sort of decision support, whether in integrated systems or stand-alone reference databases. But patients might not be reaping the rewards of such systems because they force physicians to court information as a separate step, much the same way a doctor would use a textbook. Without concrete workflow integration, doctors are unlikely to change the way they care for their patients, says Thomas Handler, M.D., research director for Gartner.

“If you’re talking about clinical decision support as an adjunct system that doctors could go to when they think they need it, then I don’t think physicians will use it,” Handler says. “It improves the likelihood that they will go to it, but the reality is that they don’t really have the time to do it now.”

INTEGRATED SYSTEMS

The absence of electronic medical records also limits the extent that archived clinical information is applicable to a partic-

ular patient, often forcing a clinician to meander through relevant findings in order to find the most appropriate recommendations for the matter at hand.

"The electronic medical record piece is lacking in this equation," says Ann Greiner, deputy director for quality development, Board on Health Care Services for the Institute of Medicine. "Ideally you'd like to have electronic access to that person's medical record so that you can easily look at their history and think about how you apply that evidence to treatment recommendations."

The ability to capture encounter data at the point of care is largely an IS dilemma. Perhaps one of the most important elements to EMR and decision support, physician order entry remains one of the most neglected practices of clinical systems.

"The percentage of physicians who are doing physician order entry is probably 2%, if even that high," Handler says. "Although we do have numbers that indicate as many as 18% of physicians have started down that path, we don't really have a great understanding of how many places are actually using physician order entry."

Gartner advocates integrated systems because decision support occurs intuitively on the back-end in the form of alerts and reminders. The passive decision support occurs after physician records information in the patient record, so computer-assisted recommendations are furnished with a particular patient in mind.

"Doctors are not going to go to a separate system to use it. If you're talking about a PDA-based reference guide, then I don't call that decision support—the electronic book approach. Even then, a vast number of doctors might have reference guides, but a small number who have them actually use them," Handler says.

IN THE MIX

Many physicians are trying their hand at different decision support modules, which typically are comprised of a database of symptoms and diagnoses that combine textbooks and peer-reviewed literature into a comprehensive reference tool.

One such system, DiagnosisPro, serves about 5,000 clinicians nationwide. For less than \$500, the system catalogs about 10,000 diseases and 25,000 findings, says Faraj Kerendian, director of sales and marketing for DiagnosisPro, a division of MedTech USA. "The company is in talks right now with several electronic medical record vendors to integrate our clinical guidance system into their EMR," Kerendian says.

DiagnosisPro will be ready to unveil its Web-based subscription products some time this year. It's difficult to link im-

provements in quality and a reduction in medical errors to decision support systems, but there appears to be a growing body of evidence indicating that physicians use and advocate stand-alone decision support, not only to suggest findings but also to reinforce diagnosis, says Octo Barnett, M.D., professor of medicine at Harvard Medical School and co-director for Dxplain, a decision support tool for the Laboratory of Computer Science at Massachusetts General Hospital. About 8,000 doctors and 2,000 medical students are using the software, which catalogs 4,500 signs and symptoms and 2,400 diagnoses.

"Of the primary care doctors that we surveyed at Massachusetts General, 68% reported that it saves eight minutes or more per encounter; 53% report that it saves 10 minutes or more," Barnett says. "The debate is largely focused on the extent to which a system makes the correct diagnosis, but what's more critical is how it helps physicians in their daily practice, and that evidence has been largely anecdotal."

VisualDx, an image-based decision support tool developed because of evidence that generalist physicians frequently order the wrong tests and misdiagnose dermatologic and other visually diagnosable problems, increasing costs and delaying appropriate treatment. The JAVA-based ASP will be the official site of the government's Small Pox information initiative, and VisualDx is working on other Web pages

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for the government's bioterrorism information projects, says Art Papier, M.D., assistant professor of Dermatology and Medical Informatics at the University of Rochester and chief scientific officer for Logical Images, which develops VisualDx.

"We ran a study with the University of Rochester. We randomized 50 physicians into two groups. All physicians dealt with four patients; two were dealt with picture books and two were diagnosed with the systems. We showed a 100-percent increase in diagnostic accuracy among the generalists," Papier says.

Papier says the applicability of VisualDx will be its differentiator because "people learn visually." Indeed, how physicians learn, recognize and retrieve information should be top-of-mind for decision support vendors, says Ralph Halpern, director of content development and program evaluation at the Tufts Health Care Institute, a care-management education company.

"You can make information much more available now, but you still have to work with clinicians to understand the materials that you are showing them and help them make use of it," Halpern says. "There are a lot of structural reasons why this is not an easy thing to do; it's not like it's just a point-and-click and you are going to get exactly what you need." **MHE**