

# SERVICE RULES



## Freestanding imaging centers bridge the gap between tried-and-true methods and those that are cutting edge

by Dana Hinesly

**A**ny savvy retailer will tell you that good customer service is the difference between succeeding in business and just scraping by. And although much of the medical field works with a “captive audience” of on-staff professionals, freestanding imaging centers are the industry’s retailers. For them, taking care of customers is the name of the game.

Achieving this goal has become more daunting in recent years. In addition to swiftly providing high-quality images and exceptional service, imaging centers must stay abreast of the latest technological advancements and how (and when) they’re being adopted as well as note their impact on the industry. The timing of when to offer new techniques—such as the digital acquisition and distribution of medical images—can make the difference between being selected by a client or being passed over.

“If physicians have a choice of imaging centers to use, undoubtedly they’ll prefer one that they feel shows efficiency when treating their patients,” says Steve Ura, CTO of A4 Health Systems (Cary, NC). “And perhaps even more importantly, [physicians want] one that gives them access to the record electronically.”

Whether or not to convert to digital systems is a complicated decision. When a hospital or medical center adopts an enterprise-wide PACS, the physicians, radiologists, and technologists often are simply along for the ride.

For imaging centers, however, converting to a digital environment is an internal process—one with little or no influence on the referring physicians, who make up much of their customer base. Although these centers must remain flexible and realize that every physician embraces innovation at a different pace, this divide places additional demands on these businesses, requiring them to produce images in any possible format.

“We would love to have the entire world operating filmless, digital, DICOM-standard data,” says Brent Backhaus, CTO of Virtual Radiologic Consultants (VRC of Minneapolis). “Unfortunately, it’s not a free upgrade to convert old modalities to digital, and it’s quite expensive to buy new modalities, so we understand the practicality of the world.”

In fact, the investment and financial commitment required to adopt a digital imaging system is the main barrier holding back the majority of practitioners. Because of the costs involved, many practices are opting to stick with film until the funding can be secured. Imaging centers are aware of this situation and continue to be committed to serving this group of practitioners right alongside their digital clients.

“We have enabled all the different workflows,” Backhaus says. “Film digitizers are in place for customers who want to work with film, [and] we have secure connections [through which] customers send their



DICOM data directly from a PACS. We try to make life as easy as possible [for them].”

VRC isn't the only company helping to bridge the gap between film and digital imaging. Industry giants also are taking steps to make digital imaging attainable for businesses of all sizes by specifically tailoring systems with a variety of features appealing to smaller offices, including a less-hefty price tag. Eastman Kodak Co (Rochester, NY) produces one such example.

“We are proud of our Kodak DirectView PACS System 5,” says Michael Fiske, worldwide marketing manager of healthcare information systems in Kodak's Health Imaging Group. “Imaging centers and orthopedic practices—both traditionally large users of film, who couldn't necessarily afford to go all-digital—now have a realistic, cost-effective solution.”

The advent of smaller, more financially feasible PACS solutions makes converting to digital images a reality for many practitioners. Hence, freestanding imaging centers tend to be more comfortable encouraging their clients to undertake the process of converting to a digital environment. One ideal time to start this conversation is when customers inquire about improving their current processes and workflow.

“When customers call me [about digital imaging], I try to promote going to some sort of mini-PACS or light PACS,” says Larry W. Mickler, RT(R)(N), director of sales and technology integration at Ohio Imaging (Kent, Ohio).

“You can do that at a low cost—probably lower than all the [costs associated with film].”

#### **Moving Toward the Future**

For many physicians, the conversion is happening whether they like it or not. Federal initiatives—such as President George W. Bush's recent call for an interoperable health information technology infrastructure<sup>1</sup>—combined with compliance-related requirements, often demand upgrades be made to the practice's internal network.

“We find that a lot of the doctors who want film and resist electronic images are making the transition anyway, because they're being converted for insurance and verification [purposes],” says Hemant Maru, director of purchasing and operations for Doshi Diagnostic Imaging Centers (Hicksville, NY). “As part of that process, they're getting computers and broadband, so we tell them that when they're ready to receive images digitally, we'll help.”

With many clients, a standing offer of assistance is the added bit of inspiration they

need to make taking the leap slightly less intimidating. Even physicians interested in making a change become more eager if they can see for themselves the realm of possibilities that digital imaging offers.

“We try to show physicians the ease of using technology,” Mickler says. “One of the things we strive to do is build relationships, and with that, you give physicians what they want and try to guide them.”

Certainly, there's no definitive approach to moving hesitant physicians and practices forward, but purporting the benefits of a digital system is unquestionably a solid first step.

Fortunately, the advantages of digital imaging are multifold and practically sell themselves. The biggest plus for many medical professionals is the faster access to images and ease of manipulation possible with digital imaging. Often, a quick peek at the available possibilities is enough to draw in a practitioner.

“[When] meeting with physicians and hospitals, I show [them] the images from one of our servers. I'm finding it's pretty easy [for them to see the advantages],” Mickler says. “With one or two mouse clicks, you have windows and levels [for contrast and brightness], measuring tools and magnifiers, and you can flip angles.” He adds that after performing the

demonstration and assuring physicians and administrators that support accompanies the technology, most are eager to make the change.

Many physicians also are won over by the fact that digital images are not confined to a single piece of film, but instead can be shared easily between several viewers simultaneously. This feature proves priceless in instances where multiple physicians are working on a single patient case, particularly when combined with the fastest distribution possible: image delivery via secure Internet connections. Once registered with their imaging center, physicians simply log on to access every image from a study as well as the report.

"We can distribute images to all referring physicians at once," Maru says. "They can all access an image whenever they want it, at the same time, with no delays. Not only can this *not* be done with film, but with online distribution, it's instantaneous."

Instead of requiring all interested parties to gather around a single viewing box in a cramped room, the ability to distribute images online means any number of physicians can weigh in from different rooms, states, or even countries.

"If they have any questions, they can always call the [radiologist], and both physicians can look at the same images simultaneously,"

Maru suggests. "For a referring physician, it's as if the radiologist is in the same room with them, and that's very good for the patient."

Digital imaging not only improves a physician's access to an image, but more often than not, it considerably abbreviates the imaging center's processing time as well.

"The best selling point of digital images is the speed," Mickler notes. "With hard-copy film, [reporting] usually takes a day or two. But with electronics, scheduling and reporting [happen] the same day."

For those practitioners still hesitant to make the transition, approaching the technical changes in stages can be an ideal path. Though not as immediate as Web distribution, images delivered via CD or DVD share many of its other benefits and serve as an interim step toward abandoning film completely. Once the imaging center burns the study onto a CD or DVD, a physician can simply insert the disc into any computer with a compatible drive; the attached viewing program allows them to open, view, and adjust images instantly.

"DVDs and CDs are a good way to wean them off the film," Maru says. "It gets them accustomed to viewing images on a monitor and using manipulation tools—instead of [looking at] film."

## Serving Those Who Serve the Patients

In the end, of course, the ultimate goal is making the customer happy and, in doing so, empowering physicians to better care for their patients.

"Some [physicians] don't want to look at a computer, and others only want [images] on film because they don't have Internet or broadband access, which takes longer to download images," says Maru, quick to add the maxim of all prospering imaging centers: "We send films to all customers who want them."

And although providing this depth of service does place some additional strains on the imaging center—including the need for a more robust infrastructure and increased bandwidth—centers are keen on doing whatever it takes to keep their customers happy.

"The bottom line is, we are here to provide service to the patients and referring physicians," Mickler says. "Everything we do [is] geared toward that." ■

*Dana Hinesly is a contributing writer for Medical Imaging.*

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1. The White House News & Policies. Executive Order 13335. April 27, 2004. Available at: <http://www.whitehouse.gov/news/releases/2004/04/20040427-4.html>. Accessed January 5, 2005.



## LIFE ONLINE: EXPLORING THE BENEFITS OF ELECTRONIC HEALTH RECORDS

Banks do it. As do libraries. Even the local grocer is involved. Modern medical practitioners, however, have yet to adopt an electronic system for managing their customers' information.

"Name another industry that still keeps its records on paper. You can't," says Mark Bloomberg, MD, MBA, chief medical officer of WiFiMed (Maynard, Mass). "How comfortable do you feel having your health and healthcare dependent upon such an antiquated system?"

Bloomberg isn't the only one asking this troublesome question. For roughly a decade, the National Committee for Vital and Health Statistics (NCVHS) has been working toward establishing industry-wide standards for electronic health records (EHRs), specifically analyzing "issues related to the adoption of uniform data standards for patient medical

record information and the electronic exchange of such information"—a duty the NCVHS was tasked with via the Health Insurance Portability and Accountability Act of 1996 (HIPAA).<sup>1</sup>

Though not a new initiative, many in the industry believe the momentum is finally reaching its apex.

"Right now, there are significant numbers of things [pushing EHRs forward]," says Joel Goldwein, MD, VP of medical affairs at IMPAC Medical Systems (Mountain View, Calif). "I think they're going to ignite [into a] much quicker adoption of EHR [in the United States]."

The biggest catalyst for the latest surge of attention to EHRs can be largely credited to government involvement at the highest level. On April 27, 2004, President George W. Bush issued an executive order calling for

"the development of an interoperable health information technology infrastructure to improve the quality and efficiency of healthcare." The goal is to make EHRs a reality for the majority of Americans within the next 10 years.<sup>2</sup>

While still in its infancy—and without such platform-building essentials as standardized systems, processes, and forms—there is no question that bringing patient records into the 21st century will have a substantial impact.

In addition to streamlining the healthcare process, estimates are that a "national health information network can save about \$140 billion per year through improved care and reduced duplication of medical tests."<sup>3</sup>

The first step to reaching this goal is an industry-wide conversion from paper files to EHRs (also called electronic medical records,

or EMRs) as the industry standard for both public and private medical practitioners. This feat is particularly daunting, considering that as recently as 2 years ago, only 13% of hospitals and 14%–28% of physicians' practices had implemented EHRs.<sup>4</sup>

### How We Got Here

From an outside perspective, it seems odd that healthcare lags so far behind other industries in building a cohesive electronic network. But aside from the diversity inherent to America's large independent provider system, a recent report from the Department of Health and Human Services<sup>5</sup> observes "a previous lack of cohesive federal policies supporting" such an initiative.

However, the chief hurdle just might be the lack of resources—both in manpower and dollars—along with a perceived lack of a solid return on investment (ROI).

"You'll hit your ROI break-even point faster as a larger environment that does more imaging," says Terry Michaelson, director of technical systems for the Department of Radiation Therapy and Radiation Oncology in the Radiation Medicine Program at the Princess Margaret Hospital, University Health Network (Toronto). "The cost per image is less in a digital environment once you're past the initial investment, but if you're not doing as many images, it'll take you longer [to get there]."

Often, achieving ROI isn't as elusive as it seems, taking into consideration savings found in all areas that benefit from innovation, including those lacking specific dollar values.

"You have to balance against the cost of your preexisting system, [including] either the lost charges or charges [you couldn't track] because the scheduling wasn't efficient," Goldwein says. "Or perhaps [it's the prevention of future] errors in the treatment of patients that you can't put a price on."

Additionally, most facilities discover after converting that their EHR system brings with it a myriad of other perks.

"What is the dollar benefit of being able to access the information from anywhere? Or to work from home? And what is the [cost of] losing physical images and documents in a disaster?" Michaelson asks. "For those things, there isn't a set dollar amount."

In addition to those less-obvious assets, one of the most evident benefits is the ease of access to patient files, even remotely. A huge benefit for physicians, the appeal of this "anywhere access" isn't lost on the rest of the staff.

"[Our] document imaging and management system makes it possible to find a chart with a click of a mouse from any workstation," says Susan R. Miller, RN, FACMPE, administrator of Family Practice Associates of Lexington (Lexington, Ky). "[Documents are] easier to find, and quicker to file and store. The process was so much more efficient that our overhead has decreased by 6 percent since [installing it]."

For many, the time saved by no longer having to seek, update, and file paper copies is the most important improvement that EHRs bring. Staff members spend less time in the file room and more time with the patients. These savings also can help practitioners increase their workforce.

"The real return comes with efficiencies that are created," says Tracie Ellis, manager of EMR sales for Misys Healthcare Medical Software Systems (Raleigh, NC). "[Offices] can add revenue-generating staff, such as physicians and physician assistants, without having to add any ancillary staff."

Additional revenue also can be found in the rooms emptied of rows of metal cabinets and folders. When files are stored and processed electronically, freed-up space can easily be converted into another area to examine and/or treat patients.

### Improved Workflow Means Improved Patient Care

Generally speaking, a phone call to the doctor's office sets off a chain of time-intensive events. The message is taken, entered, and printed in the records room, where the file is located, pulled, and updated. The entire package is then delivered to the physician, awaiting input. EHRs eliminate this scenario entirely.

"Now, when the phone rings, we go into the actual medical record, type in the message, and electronically send [it] directly to the doctor's workstation," says John Somers, CPA, COO of Bristol Park Medical Management LP (Santa Ana, Calif). "The physician can then log the notes [right] into the computer."

In this way, patient records are updated in real time, creating an accurate and complete file for the next physician—whether it's the patient's primary physician or an ER team. Having current, accurate information empowers medical professionals to make informed decisions about what care is best for the patient.

This immediacy is one reason that widespread use of EHRs is expected to significantly

reduce the total number of deaths attributed to medical errors. The file not only includes up-to-the-minute information, but the contents are better organized and easier to search through.

Automation creates another layer of protection for the patient by triggering alerts when necessary. For example, if a prescription is inadvertently written for a medication to which the patient has an allergy, a message will appear that notes the conflict. Errors can be avoided in less obvious ways as well.

"[EHRs] linked to the treatment machines reduce errors by not allowing you to enter one more zero, for example," Goldwein says. "It can be a simple thing, but [something as minor as limiting] the field width can constrain you from doing things you could have done accidentally on paper."

In addition to safer treatment, an electronic database of patient information provides physicians with a perspective previously impossible to gain.

"You can obtain a lot of quantitative data [using this type of system]. You're able to really begin to know your practice, how you take care of your patient," Miller notes. "You can do more prevention- and management-type activities with a true EMR."

### A Global Effort

The United States is not alone in placing a high priority on implementing an electronic records system.

"The United Kingdom has mounted a national effort to install EHRs in medical practices and hospitals," Bloomberg says. "[The country] recently announced a dramatic initiative to improve the quality of healthcare, and EHRs are central to this project."

America's neighbor to the north also is benefiting from significant government promotion to modernize its healthcare system.

"In Canada, there's a federal initiative and provincial initiatives to set up health networks that will [create a system] where patient information can be shared between healthcare providers in a secure manner," Michaelson says. "Every jurisdiction is doing this."

### Making the Move

Ultimately, the question isn't *if* a practitioner should convert, but *when*. Boiled down to the essentials, the answer is simple.

"Today is the best time to convert," Miller says. "Once you've done research and understand what you're trying to achieve, select the product that meets those needs. Then, just do it."

For most businesses, it's never an ideal time for a vast change to process and workflow. But in the world of technology, the longer the wait, the harder it becomes. To make the transition a successful one, it's imperative to get everyone on board with the idea—from the physicians on down.

"All stakeholders should feel that they're involved in converting to an electronic environment and that they have a vested interest in making it work," says Michaelson.

Regardless of when or how the project is tackled, technology will inevitably change the face of medicine, just as it has transformed virtually every other aspect of daily life.

"Patients are coming in having surfed the Net for information about their diseases and expect their physician to be [just] as comfortable with these types of things," Goldwein says. "Technology is becoming part of medicine."

Bloomberg concurs and poses the question, "How different is your banking today compared to 10 years ago? That's the type of advance we're talking about."

The advances are predicted to bring with them a future where patients email their physicians, make appointments through the practice's Web site, and check their lab results online. Long overdue to some and unthinkable to others, such changes are only a matter of time. And as is the case with any paradigm shift, once the dust has settled, reverting isn't a desired option.

"After [people have] the new system, if you ask them to switch back, they won't do it," Michaelson asserts. "They see [the paper system] for what it is—a 'flint and bearskin' solution for something that is better handled with 21st-century technology."

—DH

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