SeeMyRadiology.com

Helps Ohio State Medical Center Win the CD Challenge

Leading Medical Facility Eliminates Difficult-to-Manage Images on Disc

Good things come in small packages-and sometimes some not so good things! Just ask Phil Larkin, Operations Manager for the Department of Imaging Informatics at The Ohio State University Medical Center (OSUMC).

While the hundreds of medical images on compact discs (CDs) that pass through his department each week offer numerous benefits over yesterday's hardcopy films, often they are also fraught with a whole new set of problems. From incompatible file formats and exams gone missing, to significant costs both for integration into hospital workflow and creation for external use-OSUMC is finding these petite packages of patient information can become a major stumbling block to the efficiencies of the digital imaging age.

A Significant and Growing Problem

"On the surface, it may appear trivial, but anyone who works with CDs in a fast-paced hospital environment knows otherwise. Even a small, regular volume of CDs has a significant impact on imaging department costs, clinical workflow and even patient care. OSUMC was so caught up in the CD challenge that it launched a major initiative to address the situation. And we are not alone."

OSUMC is a large and prestigious medical facility with seven separate Imaging Departments. It produces nearly 500,000 of its own patient imaging studies annually and supports more than 1,000,000 outpatient visits each year often involving images from other institutions. As a result, it experiences the CD challenge exponentially more than many other healthcare facilities.

"The sheer number of patients who bring CD studies into this facility is staggering," Larkin comments. "We have people who import and export CDs all day long. That's all they do. That's not very efficient, and the costs are astronomical."

One seemingly obvious strategy to alleviate some of these difficulties would be to download all the images into the hospital's enterprise-wide PACS and manage them within the application. "For many reasons, that simply is not an option," Larkin says, noting that the storage space alone required would be a major barrier. "If the images are not in our PACS, we cannot communicate them digitally using the system's communications tools. Further, those tools would be useful only to transmit images to physicians within our hospital system-never on the fly."

Additionally, many of the CDs that pass through the hospital contain images of patients who never actually proceed with treatment at OSUMC. The medical center has no need to store these images long term. Moreover, many discs contain multiple images, including older and irrelevant exams in a wide range of non-DICOM formats. "This is because many people actually request patient CDs for their own viewing, preferring not to let their doctors know they are seeking consults or second opinions. They end up with data in JPEG, TIFF and other non-DICOM formats we cannot use," he explains.

Another issue is that, like most hospitals, OSUMC do not let staff casually slip just any CD into a computer connected to the IT network essential to the workflow of the entire enterprise. Those wishing to view foreign CDs must follow special IT department procedures, which takes time and adds cost to the CD viewing process.

While essential, this process can impact patient care, particularly in emergency situations, when seconds count and image accessibility can make a crucial difference in treatment. OSUMC has had some procedures in place to speed CD access. But at other medical facilities, some physicians have been known to resort to taking CDs to the local Internet café for faster access to speed clinical intervention.

Frequent loss is another CD problem not to be overlooked-particularly for critically ill patients being transported in ambulances with small discs tucked into their personal belongings.

A frequent but undesirable solution to many of these issues can be to repeat an imaging exam, with additional costs to insurance, often patients themselves and the healthcare system overall-not to mention unnecessary additional patient radiation.

The SeeMyRadiology.com Solution

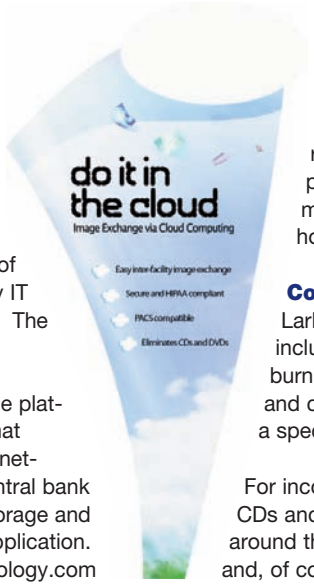
In 2004 when OSUMC launched its initiative towards CD management efficiency and enhanced communications with medical facilities beyond OSUMC boundaries, the focus was on electronic image communication with a web-based component. OSUMC wanted to enjoy the same digital efficiencies when exchanging information outside the enterprise as it did internally.

"Our IT department is extremely sophisticated, and discussions entailed building special web portals and more," said Larkin. "They predicted it might take several years and a budget in excess of $75,000 just to get efforts off the ground."

Four years later, Larkin met one of the founders of a specialized digital image management company, Accelarad, the creators of SeeMyRadiology.com, at an industry meeting and discussed the project with him. "Accelarad told us, 'we can have that type of a system up and running overnight with no capital costs.' We were stunned, but agreed to imple-

6 Concourse Parkway, Suite 1625, Atlanta, GA 30328
404.575.4222
info@seemyradiology.com

ment a trial," he says. "In fact, from start to finish, it took less than 2 weeks to install, and it functioned flawlessly right from the start."



Today, a broad range of cardiology images move in and out of the hospital over the Internet with the same level of efficiency IT predicted would take years, thanks to SeeMyRadiology.com. The start up costs were negligible and the benefits enormous.

SeeMyRadiology.com is a Software as a Service (SaaS) online platform that enables sharing of images in standard DICOM format among customer sites and their authorized users at any Internet-enabled location worldwide. The heart of the system is a central bank of offsite servers which provide short- and long-term data storage and run the SeeMyRadiology.com communication and viewing application. When users connect to the server bank from the SeeMyRadiology.com website, they can simply upload images for sharing with others or access images designated for their use, without downloading the actual file. However, files can be sent to a facility's PACS as needed.

The system does not require the addition of any IT infrastructure or hardware. It provides state-of-the-art data encryption with no VPNs required, secure logins, and other advanced security measures and manages all permissions and authorizations. The entire process is seamless and offered through a per-use fee structure to eliminate all capital start up costs.

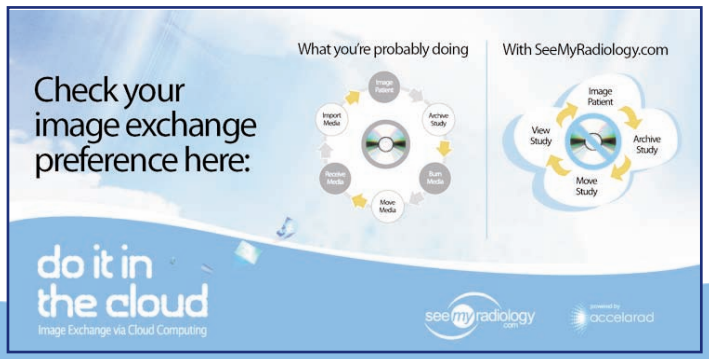
A robust application with advanced features and functionalities, SeeMyRadiology.com was created to facilitate broader based image management than just image sharing and can even replace a traditional PACS. However, more and more medical facilities are discovering that it also provides a powerful and immediate solution for solving the problem of the proliferating number of CDs that find their way in and out of today's medical facilities.

Since August 2008, OSUMC has used SeeMyRadiology.com in a pilot project in cardiology, where large image files demand significant staff time to manage. According to Larkin, every day SeeMyRadiology.com makes a difference, both clinically in providing better and faster patient care and administratively in cutting costs and making the most of hospital staff time.

Enhanced Patient Care

According to Larkin, "This is an idea whose time has come. There's going to be an avalanche of interest once the solution hits the hospital more broadly. We service more than 5,000 physicians. They'll all want it. Right now, we're rolling it out in phases." In cardiology, the specific benefits have been significant. "With SeeMyRadiology.com, when patients are very sick, often their images are already onsite and have been reviewed by the clinical team. Previously, they still would have been waiting for a messenger and deciding whether they wanted to call an ambulance. That's a huge difference in patient care."

By reviewing images before patients arrive, hospital staff can make treatment preparations in advance and eliminate possible delays due to exam retakes because of CDs gone missing. The convenience for physicians of reliable and timely online image access is enormous. At the same time, the hospital's internal image archive is kept to a manageable size.



Cost-Savings

Larkin also cites cost-cutting benefits. For outgoing images, these include the long hours of staff time previously spent burning CDs as well as the hard costs of postage and UPS and courier services. And as a bonus, patients need not make a special trip into the large campus to pick up images.

For incoming images, savings include staff time spent accessing these CDs and images in multiple shapes and sizes files, transporting CDs around the large medical center campus, tracking down missing files- and, of course, redoing any necessary exams because of inaccessible or lost CDs.

"Naturally, our priority is patient care," said Larkin, "and SeeMyRadiology.com makes a difference almost every day. In one case, we made arrangements for ground transportation of priors, but the studies were online through this system before the courier had even picked up the hard copy files. That patient undoubtedly received better treatment."

Larkin notes that the hospital's next priority is to enable its community-based physicians to access hospital patient images through SeeMyRadiology.com, followed by access for a full range of departments across every facility in the large OSUMC system. "In theory, any physician anywhere in the world can communicate with us in minutes. The impact will be enormous."

Larkin sees the hospital's partnership with Accelarad expanding in the future. "Today, we're focusing on image communication, but tomorrow it may be real-time voice consultations accompanying those images, complete with sophisticated image manipulation tools. Accelarad is so flexible and nimble, I believe almost anything is possible. We're involved in an ongoing conversation with them about how to push boundaries and use digital technology to deliver a dramatically increased level of medical care."

Calculating the SeeMyRadiology.com Savings

Larkin estimates that the cost to create and distribute a CD is $ 40 when sent by UPS ground and nearly $16 when using regular mail. He calculates the all-end cost of CD production at about $15, including labor, paper and the CD itself. UPS shipping is about $25, while regular postage is less than $1. Naturally, using a courier service or overnight ser vice adds significant additional cost.

Larkin says that his department alone sends about four CDs daily by UPS and about 30 by mail for a total cost of $640.

SeeMyRadiology.com's affordable per-use pricing at these volumes is less than $4 per exam or about $140 per day. That represents a total savings of $500 daily or $100,000 each year.

In addition, Larkin notes that about 40 additional CDs are prepared daily for OSUMC patients themselves as well as by other hospital departments. In total, OSUMC currently produces about 100 to 125 CDs each day.