

## ***RIS Propels the Growth in Outpatient Imaging Centers***

*by Cheryl Hall Harris, RN*

*The proliferation of freestanding medical imaging centers over the past several years has been propelled by a number of factors. Reimbursement systems reward the cost-effectiveness of studies produced in these facilities, since the overhead associated with hospitals is far less in an independent clinic. Patient demands support these trends too, since they often prefer the convenience of a smaller site, many of which have been designed to offer pleasant surroundings not found in the hectic radiology department of a medical center complex. Major vendors facilitate physician financing of expensive imaging equipment. And the entrepreneurial spirit is alive and well among radiologists. Combine these factors with radiology information systems more tailored for freestanding centers to efficiently and cost-effectively manage data and images, and the recipe for success is complete.*



### **Defining the market**

A glimpse into the reality of the growth in the in-office imaging sector (derived from a quick review of Part B Medicare statistics generated between 2000 and 2003 and shared by the American College of Radiology), shows it was much more rapid than aggregate increases in the number of imaging studies across all practice settings.

Between 2002 and 2003, there was a 17 percent overall growth in the number of imaging procedures throughout all sites of service - with a 26 percent increase in the professional component RVUs (relative value units). Within that context, analysis of the data suggests that increases in imaging center studies occurred at a more rapid rate than overall growth with a 22 percent increase in the number of procedures and 33 percent growth in the professional component RVUs. A corollary finding yields the conclusion that non-radiologists are gaining in their share of the professional pie in freestanding imaging centers.

A variety of vendors have designed radiology information systems to improve the specific workflow of imaging centers and impact the overall effectiveness of these sites. End-users report that adoption of RIS increases their efficiency, promotes good relations with referring physicians and speeds patient report generation as well as creates basic statistics necessary for reporting to governmental agencies and others.

There are a number of key ingredients to successful deployment of a RIS within a freestanding imaging center.

## Vendor support is vital

John Ising, CRA, FAHRA, administrator of the Saint Luke's Outpatient Imaging Center in Kansas City, Mo., uses the new Windows version of the Swearingen Software Radiology Information System, RMS. He reports that the support from personnel at Swearingen is extraordinary, as they have smoothly integrated their software with other systems such as the billing service that the center uses. He relates that when the integration of these two systems was necessitated, Swearingen people worked onsite for a few days with imaging center personnel and the billing office to insure that the interfaces were working well.

The center is affiliated with St. Luke's Medical Center, where they are adopting a McKesson PACS that went live last month. Swearingen also has worked with their PACS integration team to smooth the transmission of images between facilities.

"We had been doing archiving since the end of August in preparation for the 'go live' in December, and the Swearingen interface was almost flawless," Ising says.

Besides their onsite support, Ising is impressed with Swearingen's efforts to bring end-users into product development. At their annual user meetings, customers list and then vote on suggested improvements. At the end of the meeting, the top suggestions are adopted and built into the next version of the software. If a suggestion involves a "quick fix," Swearingen will have the proposal implemented within the week, according to Ising.

Carmelita Joyce, office manager and CT, mammography and x-ray technologist at Parkview Imaging in Santa Monica (Calif.) concurs that Swearingen has been very supportive since their initial installation six years ago. The center uses x-ray, MR, ultrasound and CT for their three radiologists to image 65 to 70 patients per day. Without the RIS, the facility would be unable to perform at that level, she relates.

"This is the easiest system to operate," Joyce says. "From an IT standpoint, the Swearingen support group can help you with anything instantly. If we call, they PCP/IP into our system and fix problems whenever they occur." When Parkview upgraded from the DOS version to the Windows version, it was the smoothest upgrade they had ever experienced, she adds.

Joyce explains that the facility was quite concerned about down time, so they asked for a weekend install. The Swearingen people came in on Friday morning, they shut down the center at 4:30 p.m., and the new system was up and running by Saturday afternoon. This gave them Sunday to validate the system, and be ready to use it on Monday.

"We've never had a down day and we've had it since 1998," says Joyce.

Renaë Lutzko is senior system administrator for medical information systems at Princeton Radiology in New Jersey, which has been serving Princeton and surrounding communities for the past 50 years with 32 physicians who work in several different facilities, and provide imaging services for both the University Medical Center at Princeton and Center State Medical Center.

Princeton Radiology uses WebMD's Medical Manager RIS version 3.2 as well as other systems from the vendor for billing and collections. Their "go live" date of May 2000 included conversion of 10 years of data from their previous RIS. Although Lutzko describes an intense work situation during those activities, she says that the end result was to increase revenues by 30 percent based on "outstandings" that had not been captured by the old system. In addition, they appreciate having the historic information on their patients.

Koolau Radiology in Honolulu (Hawaii) provides ultrasound, mammography, CT and interventional procedure services for 50 patients per day for 225 physicians in two different buildings. Although they're connected to Queens Medical Center, the largest hospital in Hawaii, they are an independent clinic.

The facility relies on the Amicas Vision Series RIS, says Raynette Raymond, business manager at Koolau Radiology. The system is the facility's first RIS, and their "go live" date was in April. Even with the time differences, Raymond says Amicas' support has been excellent.

"They have gone beyond the call of duty to make sure we're up and running," says Raymond, who adds that she stressed the importance of support prior to the purchase. "I've called people at 10 p.m. and they've helped us through."

### **Integration of the RIS is key to functionality**

The Palo Alto Medical Foundation (PAMF) in California is a freestanding outpatient imaging center with most of the imaging studies performed weekdays from 7 a.m. to 6 p.m., with urgent care available on weekends and evenings. With 13 radiologists and two nuclear medicine specialists, the facility offers MR, CT, x-ray, nuclear medicine and bone densitometry scans, and is in the process of installing a Philips Gemini GXL PET/CT. The group imaged 17,000-plus patients in 2004.

Mary Grindeland, RIS/PACS administrator for PAMF, describes a collaborative relationship with Misys Healthcare Systems to design their customized RIS.

"They [Misys] have been developing an EMR over the past few years, and we're nearly live with that now," says Grindeland. In addition, the PAMF group in tandem with Misys is in the process of linking all components including billing tasks from IDX (which serves as their ADT to provide their registration data), a scheduling module and a PACS as well as a transcription capability. Their goal was to interface all electronic functionality, and they have found Misys to be a valuable partner in assuring smooth operation of all components.

Raymond describes an interface that initially had a few jagged edges that were smoothed by Amicas. The RIS is interfaced with their PACS, which is supplied by EBM Technology. Raymond appreciates the features of the RIS, which enables them to track patients, films and physician data, as well as generate reports for the Food and Drug Administration (FDA) to meet the requirements of the Mammography Quality Standards Act (MQSA).

Joseph Coil, administrative director of Southwest Hospitals MRI Inc in Oak Lawn, Ill., explains that they selected Siemens Outpatient Practice Management Solution (SOPMS) of (Malvern, Pa.) to serve as their RIS to facilitate integration for their freestanding imaging center that has provided MRI scans since 1987.

"The advantage of doing a full blown RIS from a big provider like Siemens is the integration factor with the PACS and other systems," says Michael Cepolski, BS, RT, RMR, assistant director at Southwest Hospitals MRI. "It allows us to use worklists to eliminate technologist data entry at the modality." Thanks to RIS, the facility has eliminated 80 percent of the paper they formerly used.

The center is affiliated with three hospitals, with approximately 35 percent of their exams performed on inpatients from those three sites, with the remaining scans performed on outpatients. The hospitals are connected to the imaging center via T1 lines.

Their network is configured with different VLANs (Virtual Local Area Networks). They have a VLAN for the imaging network connected to all three scanners - a Siemens 1.5 Tesla Vision, Siemens 1.5 Tesla Symphony, and a Hitachi Open system that is in the process of being replaced by a Siemens Espree Open 1.5T scanner - one for their RIS, and another for their PACS. The three networks are configured to interact with one another.

Both Coil and Cepolski appreciate the capabilities of the RIS to generate reports that can be downloaded into Excel spreadsheets, which they share with their board of directors.

## Conclusion

Radiology information systems can provide a backbone for freestanding medical imaging centers and offer functionality that is critical to efficient and effective operation for both patients and administrative matters. However, for those activities to occur, integrating the RIS with other electronic systems and ongoing support from your RIS vendor holds the keys to your facility's success.