

Collaborative Medicine Wins Through Multi-Department Use of Enterprise PACS

Situated near the shores of Lake of the Ozarks in Osage Beach, Missouri, Lake of the Ozarks General Hospital (as it was known in 1978 when it first opened its doors) has grown over the past 25 years to become a state-of-the-art medical facility. Known now as Lake Regional Health System, the facility supports a full range of medical and surgical services, including complete cardiovascular care. Additionally, because of the increased summer population, Lake Regional also has one of the state's busiest emergency departments. In keeping with the tradition of the community-minded visionaries who founded the hospital, Lake Regional continues to innovate and adopt new technologies. Today, Lake Regional is one of only a handful of medical centers in the country that is collecting, storing and distributing data from multiple departments (primarily cardiology and radiology) in electronic format.

Early this year, Lake Regional purchased ScImage's PICOM Solution. The product gives the cardiac and radiology services at Lake Regional the ability to review, distribute and archive patient studies, including reports and procedure data along with patient demographic data using ScImage's Web-enabled Electronic Patient Folder (EPF). The EPF allows authorized users to securely access patient data stored in uniquely identified individual EPFs on the PICOMEnterprise server.

Overall, the PICOM Solution has given physicians at Lake Regional the tools they need to practice collaborative medicine and the hospital a means for reducing capital expenditures, improving workflow efficiency and providing the flexibility to integrate data from imaging studies with data from patient procedures from multiple departments in the hospital.

Cardiologists and referring physicians can now access a variety of data generated in the cardiac services department and stored on ScImage's PICOMEnterprise

server from the lab, their office and even from home. This includes cardiac stress tests and hemodynamic information from the cath lab's hemodynamic

monitoring system, as well as reporting for the cardiac cath and echo labs. Soon, the physicians will be able to view EKG waveforms and reporting from vascular procedures. All of this data is or will be linked to the patient's medical record number and made available to authorized attending and referring physicians.

Cath lab manager Connie Rugen sees the benefits everyday. "Our cardiology department is logically integrated to enhance workflow for surgeons and cathing physicians. They have been anticipating an easy way to access patient information from any location, and are pleased with ScImage's solution. Physicians can now review imaging and non-imaging studies alongside hemo data and stress results. Efficiency will improve further when viewing EKG reports and vascular reporting become available."

"Physicians can now review imaging and non-imaging studies alongside hemo data and stress results. Efficiency will improve further when viewing EKG reports and vascular reporting become available."



Lake Regional Health System, Osage Beach, MO

The PICOM Solution is also fully integrated into the radiology department. Images pertaining to all digital radiology modalities are being captured and stored in the EPFs of the PICOMEnterprise server and made available enterprise-wide. Robust 2-D and 3-D viewing tools allow physicians to read cases at the hospital and by using PICOMEnterprise's built-in telemedicine functionality, they are also accessing studies remotely. "Being able to roll out of bed and quickly review an ED case gives me the opportunity to determine whether I need to get to [the] hospital immediately or if I can get [a] few more hours of sleep," stated one of Lake Regional's on-call radiologists. To supplement on-call reading, PICOMEnterprise's intelligent scheduled routing services are automatically routing images to a remote teleradiology group for nighttime reading.

Integration was a key element in the decision to adopt the PICOM Solution. In addition to serving the needs of the imaging intensive departments, ScImage also provided a means for managing workflow and patient scheduling via an HL7 interface to the hospital's Meditech patient registration and order messaging system. The integration gives the hospital a way to reduce data entry errors by capturing patient demographics that have previously been entered. In addition, procedure ordering and patient information are pushed to ScImage's scheduling product PICOMScheduler. The scheduling software gives both departments a means for tracking patient procedures and also sends "order completed" messages back to the Meditech system. Integrating with the existing solution gives the hospital the opportunity to reduce capital expenditure costs and increase workflow efficiency at the same time.

"ScImage seamlessly interfaced their PICOMEnterprise solution to our different point-of-care clinical systems and imaging modalities including CT, ultrasound, MRI, nuclear medicine, cardiac cath and echo," according to Steve Grotewiel, Director of Medical Imaging. "Now, physicians at Lake Regional have near real-time remote access to procedural images, reports and other clinical information. Getting clinical information into the hands of every caregiver at Lake Regional Health System is a top priority for the facility and for me personally. The result is that physicians have the right tools to make the best decisions when treating patients. We evaluated many systems but went with ScImage because they were able to provide us with a cost effective, integrated solution."

About Lake Regional Health System

Lake Regional Health System supports medical and surgical services in orthopedics, complete cardiovascular care reconstructive surgery, obstetrics and gynecology, outpatient services, community health education and prevention. Credentialed by the Joint Commission on Accreditation of Healthcare Organizations, Lake Regional offers high-tech medical diagnostics and treatment, coupled with high-touch patient care. Nearly 1,000 employees support the medical expertise of 70-plus full-time medical staff. With a 100,000 square foot expansion in 1999 — larger than the facility's original structure — the 140-bed facility now includes a 12-bed observation unit, an 18-bed intensive care unit, rehab therapies, cardiac rehabilitation, an additional cardiac catheterization lab, an oncology suite, physician offices, an expanded outpatient surgery area and a chapel.

Lake Regional also features a network of clinics, pharmacies and rehabilitation services located throughout the region. The organization's vision is to transition from a primary/secondary hospital into a regional, tertiary care medical center and related clinical services.

For more information, please visit www.scimage.com or call 866.Scimage (866.724.6243)