

The Transition to Digital Imaging at Orthopedic Associates Of The Greater Lehigh Valley

Orthopedic groups working in small practices might think the transition to digital imaging is beyond their reach -- financially, and in terms of technology resources. But this case study shows it doesn't have to be.

Orthopedic Associates Of The Greater Lehigh Valley (OAGLV) is an orthopedic practice with offices in New Jersey and Pennsylvania, and five orthopedic specialists. They provide comprehensive services in Orthopedic Surgery, Sports Medicine, Spine Surgery, Joint Replacement and Physical Therapy. Like most practices their size, they used film for diagnosis and treatment planning in their offices. They stored hard copy images, paid rent on a storage facility, and required films to be couriered from place to place prior to a scheduled appointment.



Orthopedic Associates of the Greater Lehigh Valley occupies 6000 square feet of the Hillcrest Professional Plaza.

OAGLV first looked at PACS in October 2005 when they were planning the opening of a new and larger office for the New Jersey location. Their orthopedic surgeons were already using PACS at two area hospitals, so they knew many of the benefits. They envisioned the new facility as “filmless” and “paperless”, and wanted access to images from both offices, the hospital ER and the physicians’ homes.

They knew that they would need an Electronic Medical Record (EMR) system and Computed Radiography (CR) in addition to PACS to make the full conversion to digital. When they researched it at that time, they decided it was

cost prohibitive to purchase all three technologies at once.

“Even with CR costs coming down,” said Joe Seiger, OAGLV’s Practice Administrator, “we weren’t doing enough imaging volume to justify such a large investment.” So they went ahead with the EMR procurement, but hadn’t solved the rest of the equation. They did, however, further define their needs and objectives.

Defining Digital Imaging Objectives

According to Seiger, the primary objective in going to PACS was to manage their imaging more efficiently. They were anxious to eliminate film, chemicals and processors, and make images accessible when and where they were needed. These were not just cost-related issues; cost was a significant factor, but they mainly wanted to address workflow and logistical issues.

For instance, whenever they scheduled a patient in a different office, they had to transport the films in advance of the patient’s visit. If a patient came into an office on an emergency and his records were stored at the other office, the radiologist’s report would have to be faxed from the other location. A more efficient method was sought to address this issue.

Also, as the practice grew, there was more and more time spent processing films, making up jackets with labels, and filing and retrieving patient folders. They ran out of archiving space, and were paying rent for film storage at an outside facility. They saw more patients, but their costs were also increasing, so measures had to be implemented to better control these costs.

Although they would only be acquiring CR images in their medical offices, they wanted to be able to view CR, DR and MRI images that patients brought in on CD. They had a technologist on staff that had experience with CR at her previous position, so they were confident about that transition. They also knew that CR would reduce the number of repeat exams, as this had been well-documented.

When it came to selecting a particular vendor, the key issues were total cost of ownership,

interoperability with their EMR and billing systems, and ability to view prior studies for comparison with new images. They wanted a system that would be easy to learn, easy to use, and reliable. They did not have IT specialists on staff, and didn't want a system that required a lot of support and maintenance. The INFINITT PACS that had been implemented at nearby Warren Hospital met all these requirements.

"We work at two hospitals and have experience with two different PACS vendors", said OAGLV's Robert Friedman, M.D. and orthopedic surgeon. "The INFINITT system is far better in terms of quality, ease-of-use and loading speed."

Yet it wasn't until INFINITT proposed an Application Service Provider (ASP) PACS solution with alternative financing that they felt they could go ahead with the acquisition.

Moving Ahead with PACS

INFINITT's hosted PACS offering allowed OAGLV to purchase the two CR units they needed, and acquire state-of-the-art, web-based PACS technology with a manageable upfront investment. They implemented CR first, and the transition was fairly seamless. The technologist who had previous experience with CR was the obvious choice to train the other technologists.

The digital CR images were archived through INFINITT, so they would be accessible in the future for reference and comparison. When the PACS went live, OAGLV had three months' worth of images stored and accessible, and were able to phase out film, chemicals and processors almost immediately.

Most ASP's work on a fee-per-study arrangement; the customer is billed monthly based on their usage during that month, with lower per study fees as volumes increase. But OAGLV didn't want their imaging costs to fluctuate -- they wanted a fixed monthly fee so their costs would be predictable. And, with INFINITT housing and maintaining the archive and servers, they knew that maintenance and support would be cost effective.

The INFINITT *Smart-NET* hosted PACS agreement meant that INFINITT would take

responsibility for redundancy and security issues. They made it so easy, all OAGLV had to do was turn on a PC or laptop, log on to the network with proper ID and password, and *voila* – they were looking at patients' images. In addition, the PACS had integrated document imaging and CD burning that didn't require third-party interfaces.

Results

OAGLV eliminated the mess and the costs associated with film, chemicals & processors within a two week period of PACS 'GO LIVE'. The practice now transmits and accesses images digitally and instantaneously. OAGLV physicians use the PACS when consulting with patients and with physicians in other locations.

They no longer hunt for films that have been lost or misplaced, or worry about getting images to a location ahead of the patient. The turnaround time from image acquisition to availability for viewing has been reduced drastically. And OAGLV's surgeons can log on to the hospital PACS if they're on call, occasionally saving them a trip to the emergency room.

Best of all, they're able to take on more cases per day while improving the quality of service to patients and referring physicians.