KODAK Digital Imaging System Enables Large Florida Orthopedic Practice to Improve Productivity, Service to Patients

Clinic Now Sees 10 Percent More Patients with Smaller Staff, Existing Facilities

A year ago, it was not unusual for every seat in the waiting area of the Tallahassee Orthopedic Clinic, P.A., of Tallahassee, Florida, to be occupied. Today, the clinic sees 10 percent more patients but the waiting area is never full, thanks to an efficient digital imaging system that moves patients smoothly through the examination process.

The 18-physician practice recently replaced its film-screen system with Kodak DirectView CR systems, added image-sharing capability with Kodak DirectView Web distribution systems, and used Kodak healthcare network and integration services for the clinic’s network design, integration, and training. Kodak capture systems located in the main clinic, the foot and ankle clinic, and the spine clinic capture 180 digital images a day. Images from these Kodak CR systems and the clinic’s MRI systems are managed and distributed by a Kodak DirectView Web distribution system.

With this streamlined new workflow, orthopedic surgeons, technologists, and patients all save time, and the clinic is able to handle a growing number of patients and imaging studies with its existing facilities and a smaller staff. Based on year-to-date tallies, the clinic will perform approximately 35,000 imaging exams and treat 27,700 patients this year.

Tallahassee Orthopedic Clinic is located on the city’s east side on Capital Medical Boulevard, adjacent to many of Tallahassee’s leading medical facilities.
According to Gregg Alexander, M.D., the clinic’s MRI and radiological medical director, converting to digital imaging also delivers increased flexibility for physicians and staff. “Viewing images in softcopy is extremely versatile because of the digital tools that are available. Images are instantly available in multiple locations, while the studies remain securely stored. I cannot overstate the advantages of eliminating manual filing and retrieval of film studies.”

Nancy Williams, supervisor of radiology and MRI at the clinic, adds that electronic image capture and management saves time for everyone involved in the healthcare delivery process. “The ability to capture, store, and view images electronically saves time for our technologists and physicians, while an efficient electronic workflow shortens wait times for our patients. So everyone benefits.”

The spine clinic uses a Kodak DirectView CR long-length imaging system that interfaces with the CR 900 platform to provide excellent full-length leg and spine images for the practice’s orthopedic surgeons, who treat patients with a variety of hip and spinal conditions. Capturing these long-length images digitally allows the clinic to achieve consistent overall density throughout the image, and enhances the presentation of clinically important information.

“The practice evaluated two other vendors before selecting Kodak CR systems. Kodak was the clear winner because of their ability to marry affordable, industry-leading equipment with a responsive service organization.”

Gregg A. Alexander, M.D., MRI and radiological medical director, Tallahassee Orthopedic Clinic, PA., Tallahassee, FL.
Images captured on CR and MRI systems are managed and distributed by a Kodak DirectView Web distribution system. This Web-based system makes the images immediately available for distribution to five diagnostic workstations and networked PCs in 53 exam rooms, so that physicians can review the images while meeting with patients. This image management system also interfaces with the practice’s Misys EMR (electronic medical record) system so that orthopedic surgeons can review a patient’s charts and images on the same workstation or computer.

Kodak healthcare network and integration services, part of Kodak’s professional services, designed and installed an affordable network at the clinic, and integrated the new Web-based distribution system with the clinic’s MRI systems and its existing EMR system.

“Integration is a key component in any digital workflow and we knew that we wanted to view our patient records and imaging studies on the same workstation. We also wanted the Web distribution system and the EMR system to share information,” notes Williams.

This integration enables patient information from the EMR system to be automatically associated with each imaging study. “Being able to produce a digital image is a tremendous advantage, but information management is equally important. Now we enter the patient’s identification number and all the patient’s demographic information is automatically associated with each image. This is not only much faster for the technologists, but it also eliminates the errors that can occur with manual data entry.”

Because CR and MRI images are now stored electronically on the Kodak distribution system’s archive, imaging studies are only printed out for a few neurosurgeons who still request film and for one orthopedic surgeon who conducts surgery at a local hospital that does not support digital imaging. Images are output to CDs for use in the surgery suites of the clinic’s outpatient surgery center and a new local hospital.

Nancy Williams, RT(R), is supervisor of radiology and MRI at the Tallahassee Orthopedic Clinic.

**The Kodak Solution for Tallahassee Orthopedic Clinic Includes:**

- **Kodak DirectView CR 900 system**—in the main clinic; captures exams for 120 patients a day
- **Kodak DirectView CR 800 system**—in the foot and ankle clinic; captures exams for 40 patients a day
- **Kodak DirectView CR 800 system**—in the spine clinic; captures exams for 20 patients a day
- **Kodak DirectView CR long-length imaging system**—features a wall-mounted vertical cassette holder. Cassettes can be processed in any order to create an image of up to 17 x 51 inches (43 x 129 cm)
- **Kodak DirectView Web distribution system**—makes images immediately available to five diagnostic workstations and 53 exam room PCs. It also interfaces with the clinic’s EMR (electronic medical record) system
- **Kodak healthcare network and integration services**—designed and installed the network and integrated the Web distribution system with the clinic’s MRI and EMR systems
MAKING THE TRANSITION TO DIGITAL ENVIRONMENT

Converting to an all-digital environment required a major adjustment by the clinic’s 18 orthopedic surgeons and 36 staff members. “Some of our physicians and staff did not use a computer at home, so they were starting from scratch,” Williams explains. “Kodak did an excellent job of training our staff and getting them comfortable with using the new equipment.”

At the urging of Williams, the practice also created a full-time position for a PACS administrator, which was filled by one of the clinic’s IT staff. “I knew that in a clinic as large as ours, we needed a person whose primary responsibility is to monitor all PACS-related operations, conduct ongoing training and work closely with Kodak to ensure that we maximize the many benefits of this system,” she notes.

RETURN ON INVESTMENT

A digital imaging system like this one does not offer an instant payback, but it does deliver immediate benefits and an attractive return on investment. Williams notes that being able to see more patients without expanding the practice’s facilities or staff represents a significant growth opportunity.

The clinic also saves almost $250,000 a year due to the elimination of film-related equipment and reduced staffing requirements. Film expenses account for a savings of $175,000 and an additional $13,400 is saved from elimination of processors and chemistry. The clinic has also eliminated two staff positions through attrition for an additional savings of $58,250.

“If you can improve the efficiency of your staff and provide better service while achieving a return on investment, that’s a win-win.”

Nancy Williams, RT(R), MRI and radiology supervisor, Tallahassee Orthopedic Clinic, P.A., Tallahassee, FL