KODAK DIRECTVIEW DR SYSTEMS



At Henry Ford Hospital, Kodak's DR 7100 System Delivers Fine Detail Not Present in Previous Imaging Exams





HENRY FORD HOSPITAL



Michael Flynn, PhD, is a radiologic physicist at Henry Ford Hospital. Dr. Flynn determined that the Kodak DirectView DR 7100 system offered a decisive advantage over competitive systems.

"Since we conduct a significant amount of orthopedic, skeletal and extremity exams, the ability to see fine detail was extremely important. Our initial research indicated that direct capture with amorphous selenium technology would provide the best image quality," notes Dr. Flynn. "We subsequently determined that Kodak's DR platform, with its EVP software, offered a decisive quality advantage."

Dr. Flynn's assessment of the DR 7100 system's image quality is echoed by Marnix van Holsbeeck, MD, Radiologist and Director of Musculoskeletal Radiology. Dr. van Holsbeeck reports that the DR 7100 system provides an exceptional level of detail. In fact, he says, "I am seeing structures that I have not been able to detect before."

His evaluation is based on a comparison of prior images of the same patients conducted on computed radiography and radiographic film and images captured with the DR 7100 system.

Like other hospitals that purchase digital radiography (DR) systems, Henry Ford Health System of Detroit had three primary objectives: capture extremely high-quality digital images, increase productivity and provide ease of use.

Michael J. Flynn, PhD, Radiologic Physicist, carefully evaluated the image quality produced by several leading DR vendors prior to selecting the Kodak DirectView DR 7100 system. The DR 7100 system now handles inpatient and outpatient procedures in the general radiology area of the 903-bed Henry Ford Hospital.



Marnix van Holsbeeck, MD, radiologist and director of Musculoskeletal Radiology for Henry Ford Hospital, examines images using a diagnostic workstation.

"KODAK DIRECTVIEW EVP Software is an important component in this system"

Dr. van Holsbeeck reports that he is able to see detail not only in the bone but also in the soft tissues around the bone, where indications of disease are often present. "The level of fine detail in these images is exemplary. I am able to see bone erosions that indicate rheumatoid arthritis before they become visible on the standard radiographs, and can view the cortical lining of the sockets of teeth, which is useful in evaluating patients for metabolic bone disease or osteoporosis," he says.

In myeloma exams, he notes: "The image quality is so detailed that a CT scan, which is normally ordered to verify possible lytic lesions, may no longer be required."

EXEMPLARY IMAGE QUALITY

This exemplary image quality is a combination of direct digital image capture and unique image processing. "Kodak DirectView EVP software is an important component in this system. We are extremely pleased with the way we have been able to fine tune the image processing that is applied to different body parts and views," notes Dr. Flynn.

In addition to gains in image quality, the hospital has also achieved enhanced productivity. "There's no doubt that DR technology is at the top of the productivity curve. It's a streamlined all-digital process where the technologist does not have to leave the room to process either film or CR cassettes," notes Dr. Flynn. "We are extremely pleased with the speed at which we are able to view images and the capacity of patients we are able to handle."



Kerry E. Lange, RT(R), positions a patient for an imaging procedure conducted on the Kodak DirectView DR 7100 system. The Kodak DR 7100 provides exceptional image quality for table-based and upright exams.

A worklist is downloaded from the hospital's radiology information system. Patient demographics are matched to images with a few mouse clicks, so no manual data entry is required. After capture and review, images are immediately routed for soft copy review to the facility's PACS system.

The facility and its suburban medical centers conduct approximately 250,000 radiographic imaging studies a year including portables on 13 Kodak DirectView CR systems and one Kodak DR 7100 system. The main hospital campus has six CR systems in the orthopedic and urology clinics, ICU and surgery. The DR 7100 handles general radiology procedures, which total about 10,000 studies per year. The remaining seven CR systems are located in four suburban medical clinics.

PRODUCTIVE OPERATOR CONSOLE

The productivity achieved by the DR platform is supported by the system's ease of use and a common user interface that is shared by the Kodak DirectView CR 800 and 900 series systems located throughout the facility.

"The operator console is a key element in achieving efficient image capture on both CR and DR platforms," notes Dr. Flynn.

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"It's not often that a product overdelivers on its promises, but in our eyes, the KODAK DR 7100 System has done just that"

"Kodak's operator interface features an easy-to-use touch screen that displays the views required for each type of procedure and shows small 'thumbnail' images of the views that have been captured. This enables technologists to know exactly what views have been taken and which remain."

He adds that Kodak's user interface has significant advantages over other imaging modalities that the hospital has implemented. "So many imaging systems feature an interface that requires some computer experience on the part of the user. Kodak's touch screen helps us maintain high throughput in both CR and DR exam rooms because our technologists are not caught up with lots of typed entries or the need to negotiate a complicated process from one screen to another."

In addition to a consistent operator interface, Kodak's EVP software processes imaging studies captured by both CR and DR platforms, which provides consistency across the entire range of general radiology exams.

"We not only have much greater detail to work with, but we also have greater image consistency. This consistency enhances diagnostic confidence and makes imaging studies easier for radiologists to read," Dr. Flynn reports.

Dr. Flynn also compliments Kodak for a smooth installation. "We have installed and tested a lot of new technology at our facility, and this implementation was particularly smooth. It



Kerry E. Lange, RT(R), prepares to take an image using the DR 7100 system. The operator interface features an easy-to-use touch screen that displays the views required and shows thumbnail images of the views that have been captured. The technologist can use either the touch screen or mouse to interact with the console.

was also extremely satisfying because we began achieving the benefits of direct digital capture immediately—and we realized even better image quality and productivity than we expected. It's not often that a product overdelivers on its promises, but in our eyes, the Kodak DR 7100 system has done just that."

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