

North Kansas City Hospital's Kodak DirectView CR 800 Systems Speed Image Access, Boost Departmental Productivity.



**N**orth Kansas City Hospital is a showplace for the efficiencies afforded by a digital radiology department. The 350-bed bospital recently replaced film-screen imaging with eight Kodak DirectView CR 800 systems in the ER, ICU, outpatient services and surgery suite, as well as the general radiology department. As a result, the department now achieves impressive increases in productivity while simultaneously improving the quality and consistency of radiologic exams.





Radiology Systems Manager Peggy Wollnik, M.ED, (ARRT)(R), and Administrative Director Hanamel Rada are pictured with one of the hospital's eight Kodak DirectView CR 800 systems.

"CR systems are a cornerstone of our conversion to digital imaging because they capture high-quality images digitally from a variety of inpatient and outpatient environments and transmit them to our PACS (picture archiving and communications system) for softcopy diagnosis and storage," notes Hanamel Rada, director of radiology.

The evaluation team selected Kodak's CR 800 platform because of its excellent image quality, compact "all-in-one" footprint and Kodak's outstanding support. "We evaluated several vendors, but Kodak's CR products offered clear advantages in several areas," Rada reports.

Image quality was the hospital's most important concern. "Our radiologists indicated that the images

produced with the Kodak CR 800 system contained higher resolution and sharpness than other vendors we studied. Everyone in the department immediately noticed the quality of the images. They just sparkle," he adds.

The hospital applies Kodak
DirectView EVP software to all images
to improve both image quality and
consistency. "Exposure variances
are now almost impossible to detect,"
Rada notes. The software optimizes
CR images by increasing latitude while
preserving contrast and image detail.

Space requirements were a factor in the CR selection process, as well. "The small footprint of the CR 800 is also an important asset, especially for the ER, ICU and operating room," Rada says.

Melanie Panek, RT(R), checks the quality of an image acquired with the Kodak DirectView CR 800 system in the trauma room at North Kansas City Hospital. The image is reviewed just seconds after the procedure to eliminate callbacks.

## **Productivity Gains**

In addition to enhanced image quality and consistency, the CR systems, in conjunction with a recently installed PACS, have produced impressive productivity gains throughout the department.

The hospital elected to place four of the single cassette feed CR 800 systems in exam rooms and the remaining units at the ER, ICU, surgery suite and the outpatient services area. "Technologists are conducting more exams each day, instead of spending time carrying film cassettes around the hospital. In addition, we have virtually eliminated patient callbacks, since technologists can immediately review images on the monitor," notes Peggy Wollnik, radiology systems manager.

The speed of image access is also important, especially in the emergency room and surgery suite. "Immediately after the technologist sends images to the PACS, radiologists in the reading area are viewing the images," she notes. "The images are also routed to PACS workstations in the ER and surgery areas so that physicians there can view images as they read the radiologist's report."

Patient throughput in the hospital's outpatient services area, which accounts for 20 percent of the department's imaging volume, has also improved significantly. "We transmit images to PACS workstations

Radiologist Barry R. Cooper, M.D., evaluates a cervical spine image using a Kodak AutoRad primary diagnostic workstation. The workstation's customizable hanging protocols, bookmarks and side-by-side paging optimize efficiency and accuracy in viewing comparative studies.

at the facility. Physicians can view the images and consult with a radiologist by phone when necessary. The benefits of a digital workflow are undeniably impressive," Rada reports.



By accessing a worklist on the Kodak DirectView CR 800 system, technologists can check the status of a procedure or review an image.

The CR systems are integrated with the RIS (radiology information system), as well as the PACS, so that patient demographics can be imported. Technologists key a patient's identification number and then simply touch the screen to enter all associated data supplied by the RIS. "Eliminating manual data entry not only saves time, it also reduces errors," Wollnik explains.

## Trial Site for the Kodak DirectView CR 900 System

North Kansas City Hospital is also testing the new Kodak DirectView CR 900 system in its main radiology department. The CR 900 streamlines workflow in busy radiology departments by allowing technologists to load eight cassettes at a time, and then walk away.

Kodak's CR product line also features the wall-mounted Kodak
DirectView remote operations panel that allows technologists to enter patient/exam/cassette identification, check image quality, reprocess and transmit images—all from the examination room. The CR 900 at North Kansas City Hospital is currently configured with a remote operations panel in each of two exam rooms.

Both CR 800 and CR 900 systems can be linked to multiple remote operations panels.

"Depending upon volume, we see a single CR 900 system handling several examination rooms," notes Rada. "The remote operations panel is a key ingredient because it allows technologists to perform all data



and image management functions in the exam room. We have found that this prevents delays at the centrally located CR unit and allows technologists to spend more time with patients."

Wollnik adds that Kodak CR systems are easy to use. "The installation has gone smoothly and Kodak's customer service organization has lived up to its sterling reputation. In addition to providing technical support, Kodak representatives have also provided valuable input to help us maximize our new digital workflows.

"Thanks to digital imaging, we are now able to offer enhancements in image quality, productivity and patient care. We believe our early adoption of imaging technologies will help us maintain our position as one of the leading healthcare providers in this region," Rada concludes.



Lisa Todd, RT(R), loads an exposed plate onto the Kodak DirectView CR 900 system. Technologists check images using the wall-mounted remote operations panel.

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Health Imaging Division EASTMAN KODAK COMPANY 343 State Street Rochester, New York 14650 1-877-865-6325, ext. 227 (toll free)

KODAK CANADA INC. 3500 Eglington Avenue West Toronto, Ontario M6M 1V3 CANADA

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