



**Case Study** | Pharmongkutklao Hospital, Thailand

# CARESTREAM DRX-Revolution Mobile X-ray System Helps Enhance Patient Care



*Pharmongkutklao Hospital*

Pharmongkutklao Hospital (Bangkok, Thailand) recently installed a new portable X-ray imaging system to enhance care for its patients in the ER, inpatient, orthopedic and outpatient departments. Hospital radiologists carefully considered several systems before selecting the CARESTREAM DRX-Revolution Mobile X-ray System and the innovative DRX-1 detector. This well-known public teaching hospital has 1,200 beds and conducts 100,000 imaging exams a year.

“The DRX-Revolution with the DRX-1 detector offered exceptional capabilities in several areas—image quality, maneuverability, advanced features and safety during transportation from one area to another,” said Colonel Dr. Thanpong Rangsiapaht, MD., Chief Hospital Radiologist.

“Selecting the right mobile system is important because some mobile systems have a tall column and they cannot fit into small rooms or they are too large to get close to the bedside. Other systems are very maneuverable but they do not offer acceptable image quality. We wanted a system that offered

excellent image quality as well as maneuverability. Our radiologists and our radiographers agreed the DRX-Revolution and DRX-1 detector satisfied all our requirements,” Dr. Rangsiapaht explains.

The hospital’s radiologists report that the new system enhances patient care because the DRX-1 detector produces high-resolution images in about five seconds. These images are sent to the hospital PACS so they can immediately be viewed by radiologists and other physicians.

Advanced software allows physicians to see a specialized view of the original X-ray image that shows placement of the tubes and lines that are often required by critically ill or injured patients. “These tubes and lines are very difficult to detect on a standard X-ray, so this software creates a version of the original image that is designed to clearly display the tubes and lines,” said Dr. Rangsiapaht. “This helps our physicians see these devices so they can make sure they are correctly positioned.”



*Colonel Dr. Thanpong Rangsiapaht, MD., Chief Hospital Radiologist*

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### Key System Advantages

The hospital's physicist, Lieutenant Colonel Dr. Supakajee Saengruang-Orn, Ph.D., outlines other important characteristics of Carestream's DRX-Revolution:



*Lieutenant Colonel  
Dr. Supakajee Saengruang-Orn,  
Ph.D.*

1. The system's automatic collapsible column allows radiographers to see people and equipment when they are driving the machine from one location to another, or positioning the system at the bedside. This offers both greater safety and convenience.
2. The extendable tubehead is easy to control and move into place. This helps radiographers obtain correct positioning for the X-ray exam, which simultaneously enhances image quality.
3. The system has two touch screen displays: one is at the tubehead and the other is a 19-inch monitor on the console. These displays are synchronized so that patient data and exam data are displayed on both screens. If radiographers need to adjust the exposure, they can do that at the tubehead and do not need to move away from the patient. This enhances patient safety, in addition to making the imaging process easier for radiographers.
4. A dual motor drive makes it effortless for radiographers to move the system. The wheels also work independently so the system can make sharp turns and easily be maneuvered into tight spaces.

Prior to implementing the new DRX-Revolution, the hospital installed six CR systems and a room-based DR system from Carestream. Because Carestream has a common user interface for its CR and DR systems, technicians quickly became proficient on the new DRX-Revolution. Having the same user interface also ensures maximum productivity for technicians who use both types of systems.

### Carestream Has Earned Reputation for Reliability, Excellent Service

As with any X-ray imaging system, reliability is essential and Dr. Rangsihaht reports that the DRX-Revolution has exceeded the staff's expectations. "We are pleased with the reliability of the DRX-Revolution and the CARESTREAM CR systems and laser imaging systems we have used for many years. Carestream representatives have always accurately represented their products. In addition, they deliver excellent service after the sale. Their staff always responds promptly to any service calls, even after hours or on holidays," he reports.

"We also value the innovation that Carestream engineers design into their products and the ongoing knowledge that Carestream representatives share with our physicians," said Dr. Rangsihaht. "This has led to a very successful long-term relationship between our staff and Carestream."

