CARESTREAM X-ray Solutions

Case Study | University Health System, San Antonio

Wireless DR Portable X-ray Systems Enable Real-Time Decisions That Can Help Enhance Care for Critical Care, Inpatients

San Antonio's University Health System Selected Carestream's DRX-Revolution As Its Mobile Imaging Platform for the Future

University Health System in San Antonio, Texas

A new generation of wireless DR portable X-ray systems delivers outstanding image quality that gives physicians and radiologists a clearer view of anatomical structures needed to make a diagnosis. University Health System (San Antonio, Texas) installed five CARESTREAM DRX-Revolution Mobile X-ray Systems to image patients at University Hospital's Emergency Center (EC), intensive care units, transplant center, surgical suites, nursing units and inpatient rooms.

The 498-bed hospital has 12 floors and serves as the leading Level 1 Trauma Center for San Antonio and all of South Texas. The radiology staff conducts 11,000 X-ray images a month—including approximately 7,000 portable exams.

"Carestream's DRX-Revolution is our mobile imaging platform for the future," said Rick Pena, University Hospital's Director of Radiology. "Its smooth wireless communication equips our technologists to access the order, complete the exam on the portable system and forward the exam immediately to the RIS so it's posted on the worklist. This allows images to be read in real-time by radiologists and sent to the PACS for view by physicians throughout the hospital."

He adds that "image quality and presentation are also much more consistent than our previous CR-based systems, which is a valuable asset for radiologists and physicians who are looking for subtle changes in the condition of our critical care patients." An image recall feature allows technologists to pull up the last three exams for each patient and copy the techniques that were used to help ensure consistency.

The DRX-Revolution also delivers process improvements for everyone involved in the imaging workflow—from technologists to physicians, radiologists and specialists, adds Chief Technologist Chris Vineyard.

"Since images from the portable systems are available in about five seconds, physicians can make rapid decisions that can improve patient care. In addition, Tube & Line Visualization Software allows physicians to instantly verify the placement of intubation tubes or PICC lines in ICU patients," he said.

Vineyard adds that the DRX-Revolution systems are also popular in the hospital's surgical suites because surgeons can rapidly review images to determine if each stage of the procedure has been a success. Patient care is also improved since patients spend less time under anesthesia by eliminating the 15-20 minutes required for each CR-based imaging exam.

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Reduced Dose Especially Important For Critical Care Patients

Use of the DRX-Revolution has reduced patient dose by up to 60 percent over previous CR systems. "This dose reduction is important for all our patients, especially critical care patients and inpatients who may require daily X-ray images to allow physicians to accurately monitor the status of their condition and determine if treatment changes are required," Vineyard explains.

The hospital's technologists worked with radiologists to create new techniques for portable exams that lowered the dose while optimizing image quality. When Carestream's consultant came to the site for training, she displayed four views of the same exposure so radiologists could select their preferred display preference. "We didn't even know it was possible to do this but it made our radiologists extremely happy," he notes. "And Carestream's service has been exceptional—they make sure our systems are up and running so we can continue to deliver excellent patient care."

The DRX-Revolution's efficiency also translates to improved staff productivity. Two technologists conduct 20-25 inpatient exams each morning in just 45 minutes. It used to take four technologists 1.5 hours with CR-based portable systems. "These technologists have been deployed to other areas of our facility to support the needs of our growing campus," Vineyard notes.

Vineyard also complimented other advanced features for the DRX-Revolution including:

- Built-in RFID technology that automatically logs in technologists by reading the chip in their badges. This saves time and provides accurate records of exams conducted by each technologist.
- A collapsible column that provides better visibility and safety during movement from one bedside to another. It also helps technologists avoid hitting ceiling-mounted monitors, door magnets and other equipment.
- On-board bins that ensure technologists have access to gloves, sanitizer, paperwork, markers and other supplies; and
- Administrative Analysis and Reporting Software that provides a dashboard view of operations and allows senior technologists and managers to track repeat rates and other data to help enhance workflow and image quality while optimizing patient care.

For more information on Carestream's medical imaging solutions, please visit www.carestream.com.

DRX-Revolution Mobile X-ray System