

**Case Study** | Indiana University Health  
Methodist Hospital



# Hospital's Four CARESTREAM DRX-Revolution Systems Help Enhance Diagnosis, Treatment for ICU and Inpatients



*Indiana University Health Methodist Hospital in Indianapolis, Ind.*

## Hospital Staff Conducted Tests of Six Wireless Portable DR Systems

Implementing new portable X-ray imaging systems to serve multiple critical care units and inpatients at Indiana's largest hospital and Level I trauma center is a big commitment—and the radiology staff at Indiana University Health Methodist Hospital (Indianapolis, Ind.) didn't take this decision lightly.

The staff conducted a six-month evaluation that involved on-site testing of wireless DR portable X-ray imaging systems from six suppliers. "We evaluated all aspects of performance from image quality and speed of access to maneuverability, ease of use, and advanced imaging software. After we saw what the CARESTREAM DRX-Revolution could do, it was an easy choice," said Todd Stanley, administrative director of radiology for IU Health Methodist Hospital.

The hospital installed four DRX-Revolution systems to deliver enhanced speed and image quality for bedside exams in its ICU areas and on all hospital floors, which were previously served by CR-based mobile systems.

Physicians and radiologists are enthusiastic about the exceptional image quality offered by the new portable systems. "Seconds count in the treatment of seriously ill patients, and our physicians can now view high-quality images in less than five seconds," Stanley reports. "Our radiologists are also very pleased with the enhanced image quality when compared to our previous portable CR systems."

While the original X-ray images are used to assess a patient's condition, Carestream's Tube and Line Visualization Software allows the creation of a companion image that equips physicians to immediately verify correct placements of gastric tubes, feeding tubes, pneumothorax chest tubes and PICC lines.

Physicians and other clinicians report they can now clearly see the position of tubes and lines, which are difficult to detect on a standard radiographic image. "These images not only allow physicians to view tubes and lines, they avoid the need for a second exposure," Stanley explains.

Imaging studies are automatically communicated wirelessly to the PACS for reading by radiologists. Physicians also can view images on PACS monitors throughout the facility.

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In addition to the image resolution, Stanley adds that the power of the DRX-Revolution's 32kW generator also helps reduce exposure. "We have programmed new techniques into our portable systems that reduce dose by 30-50 percent for many of our patients," he said.

Use of DR-based portables for hospital rounds has been a tremendous boost to both staff morale and productivity. "Our techs were transporting 10 cassettes at a time to the nearest CR reader and then going back to image more patients. Now they can conduct portable exams in half the time and those images are ready for review immediately by surgeons and other specialists," according to Stanley.

### Advanced Features Improve Staff Productivity

Higher staff productivity and improved technologist satisfaction are also driven by advanced features including access to the patient worklist, a collapsible column, easy drivability, and maneuverability in the tight spaces found in critical care areas. "The DRX-Revolution requires very little effort to move through the hallways and it's capable of performing tight turns so it can fit into spaces between existing bedside equipment," Stanley notes. "It's also much safer to drive because our technologists can see over the system so they don't run into people or other equipment."

He adds that DRX-Revolution systems contain an automatic RFID reader that signs in technologists using RFID chips in their badges. "This automatic process ensures that we have an accurate record of which technologist is using the machine for each exam. It's also much more convenient for

the techs. By the time they touch the machine, they are already logged in for use."

Having space for supplies in the system's holder also is a time-saver because it ensures technologists have everything they need to perform an exam when they get to the patient's room. "That's why the DRX-Revolution is often referred to as an X-ray room on wheels," Stanley notes.

*U.S. News & World Report* named Indiana University Health Methodist Hospital to its 2012-2013 Honor Roll in its annual America's Best Hospitals rankings, the highest distinction reserved for top medical centers across the country that have the skill and capacity to address the most challenging medical cases.

For more information on the CARESTREAM DRX-Revolution Mobile X-ray System and Carestream's comprehensive portfolio of digital radiography imaging systems, please visit [www.carestream.com](http://www.carestream.com).



*DRX-Revolution Mobile X-ray System*