

## D-EVO II USER'S VOICE

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# Digital Radiography

# Two birds, one stone: How a DR upgrade improved safety and workflow for one provider



## The Christ Hospital Health Network in Cincinnati

In today's healthcare environment, the bottom line for providers is to maximize value with every decision made. That's why a technology upgrade that improves care and the patient experience on multiple fronts can be a game changer.

The Christ Hospital Health Network in Cincinnati learned this recently when they upgraded their digital radiography (DR) equipment and were able to realize improvement in safety, workflow and the patient experience. The organization was among the first to roll out the D-EVO II digital detectors from FUJIFILM Medical Systems U.S.A., Inc. and they immediately noticed improved image quality which translated to safer care for patients.

"You're able to get a lot more detail," says Judy Turney, lead radiologic technologist at The Christ Network's Montgomery Outpatient Center. "It's surprising how much...on some exams along with bone images you are getting more soft tissue than you normally would on a CR or other systems."

The new FDR D-EVO II detectors utilize Fujifilm's proprietary Irradiation Side Sampling (ISS) technology, which repositions the thin film transistor sensors on the front side of the scintillation layer as opposed to the back. This reduces scatter and improves image quality.

The benefit to the patient is that the dose can be reduced without sacrificing image quality. "The dose is down but the image quality is improved," says Bruce Lauer, Christ Hospital's administrative director of radiology. "You get a two-fold benefit."

Turney notes that she's observed doses cut by about 50 percent since they started using the new technology. This is a reduction worth shouting about, as Lauer notes.

"Our patients are more engaged and educated on the issue," he says. "Having an opportunity to utilize equipment that allows us to reduce the radiation dose helps decrease some of their anxieties."

### Lighter loads

Dose reduction is an important yet invisible safety issue, but some of the other design improvements in the facility's new detectors are more tangible. For example, Fujifilm's FDR D-EVO II detectors are light, weighing in at about 5.7 lbs for the 14 x 17 models.

"One thing our technologist disliked was the weight of the



previous cassettes. The techs really like the new panels because of the lighter weight," Lauer says. "The panel is one of the lightest in the industry."

More than addressing staff satisfaction, detector weight is also a safety issue for the radiographic technologists who interact with equipment all day. Studies have shown that the stress of radiologic technologists' repetitive daily tasks can lead to painful issues in the back, wrist, arm and shoulder. Every pound shaved off a detector's weight is saving wear-and-tear on the staff themselves.

Another feature that boosts the safety profile of the facility's radiography services is the Hydro AG antibacterial coating and fluid protection on the FDR D-EVO II. The coating is activated during wipe down and cleaning to help prevent the transfer of hospital-acquired infections. The fluid protection and enhanced durability of the detectors keeps them functional in harsh medical environments.

### Breaking free

The upgrade was the first time x-ray went wireless for The Christ Hospital Health Network, offering the ability to break free of a tethered cord. "Having a wireless system is a great option for both patients and staff," says Turney. She adds that at the ambulatory center where she works, they don't see much cross table work, however, when they

do extremity imaging on the tabletop, it's more workflow friendly to operate the panel without being tethered. Technologists have more latitude as far as positioning patients and where they can position the detector. Seemingly simple features in the new detectors also provide a boost to workflow. Digital readout and LED lights on the panels clearly display battery and ready status, while other LEDs can change color to help keep the detectors organized to identify them for easier sharing with other locations. Lauer also noted that the facility found more efficiencies in performing chest x-rays with an investment in a large field of view 17 x 17 panel. Previously, they had used a 14 x 17 in the upright chest stand and for a chest x-ray of a larger patient, staff would start with the panel in landscape, then change it to portrait orientation for the lateral image. With a 17 x 17 panel, however, there's no need to pull out the detector between the two images, saving precious minutes each exam and helping prevent information from being cut off due to orientation and anatomy size. It all adds up. A few minutes saved per exam. A few pounds less to carry. A lot less radiation per image. In the end, a smart investment in new DR technology can help care givers provide their patients with exceptional outcomes, affordable care and the finest experiences.