



# Imaging freedom

Philips DigitalDiagnost with wireless portable detector shatters the constraints of traditional radiographic imaging

Dartmouth Hitchcock Medical Center technologists experience direct digital X-ray imaging without restrictions

“The new wireless detector is just what every tech would imagine it to be. It really is,” says Jim Roberts, Administrative Director of Radiology. “I’ve been in imaging for 35 years and this is something we would dream about when doing 20 to 30 portables a day.”

## Building on the strength of DR

Room #1 is the first of ten imaging suites in a diagnostic department that performs 100 to 150 thousand diagnostic procedures each year. Outfitted with a Philips DigitalDiagnost VM single-detector multipurpose system, the room helps support the outpatient population of New Hampshire’s Dartmouth Hitchcock Medical Center.

While the system’s multi-purpose swiveling arm assures full application flexibility in upright and cross-table imaging, Dartmouth Hitchcock chose to supplement the system with a new wireless portable digital detector. This innovative device allows technologists to freely move around the room, accommodating even the most difficult projections in a more convenient fashion.

“The beauty is that you have a digital cassette that is completely un-tethered and can be placed in virtually any position,” notes Roberts. “You can use it as an upright Bucky, a cross table Bucky, a cross table lateral (for spine) and on the floor for AP standing feet.”



# PHILIPS



The wireless detector supports the special demands of trauma, orthopedic, bed and wheelchair examinations with all benefits of direct digital radiography (DR):

- Images from the wireless digital detector are instantly displayed on the Eleva workspot
- Technologists can select pre-programmed settings for fast, reliable exposures
- Philips advanced UNIQUE image processing technology assures excellent image quality

Durable construction allows the detector to be used for bed thorax examinations and for weight-bearing exams.

#### **Extraordinary versatility**

Diagnostic Radiology Team Leaders Jessica Rider RT (R), Heidi Nystrom RT (R) (M) and Brenda Sleasman RT (R) (M), feel the wireless detector opens up new possibilities.

“Once the wireless went in,” says Rider, “it was really nice to leave the VM in the upright position for stitching and knees and then use the wireless for lateral and supine views.” Nystrom concurs, “The detector has made the VM room much more versatile.”

“We do a lot of weight bearing feet exams,” points out Sleasman, “and we used to have to turn the VM detector into a horizontal position and then roll in this big stand for the patients to get up onto. With the new wireless detector, we just literally put it on the floor and have the patient stand right on it.”

#### **Patients and staff benefit**

Patients undergoing X-ray exams often suffer from painful debilitation where mobility is limited. They may be confined to a wheelchair, unable to stand, or bedridden and not able to sit up. These patients can challenge a technologist working with the rigid configuration of a typical X-ray system. Philips wireless detector breaks down those barriers.

“You get the flexibility of CR with the image quality of DR.”

“Now, if a patient can’t assume a position, we can easily compensate,” says Roberts.

Recently an ICU patient with casts on both legs from knees to feet was brought down to X-ray after a visit to the operating room. The request was for a bilateral feet, ankles and tibia/fibula exam. In the past technologists would have had to use CR cassettes or transfer the patient to the table to use the built-in detector.

“With our wireless detector, we did this exam in just 10 minutes, which otherwise would have taken at least 30 to 40,” states Nystrom. “The techs were all smiling when they came out because of how quickly the images were acquired. The patient actually snored through the exam. And we didn’t have to inflict any pain to get the best images.”

Rider suggests workflow and throughput is positively impacted by this kind of speed. “What’s great is you don’t have to take the detector out to run it like you would a CR cassette. With this unit you can re-adjust quickly and the patient doesn’t have to move or wait. You get the flexibility of CR with the image quality of DR. We have found we actually use the wireless detector 51% of the time.”

### Improved image quality

Not only does Dartmouth Hitchcock benefit from enhanced versatility and speed, but technologist and radiologist alike find the wireless detector’s DR image quality adds a sense of diagnostic confidence. Images are clear, clean and crisp, assisted by Philips advanced UNIQUE image processing and state-of-the-art Cesium iodide technology. “We’ve never received anything but compliments from our radiologists,” says Sleasman.

But can a ‘wireless’ detector keep pace with a full schedule in a busy room? Concerns over the detector’s ability to maintain its charge have been quickly dispelled. “In between patients you clean it and set it down in the charger while you prep your room for the next patient,” explains Nystrom, “so it regularly gets a few minutes of charge. We’ve never had an issue with battery life.”

### Off to the Emergency Department

After several months of outstanding work in outpatient room #1, the wireless detector is heading for Dartmouth Hitchcock’s emergency department (ED). Technologists in the ED will be using it for chest, abdomen, cross table and extremity exams, much the same as in room #1, but in a more urgent context.

“Everything we do is designed to make the lives of our patient’s easier and more comfortable,” insists Sleasman. “When we move the detector to the emergency room it’s going to be wonderful for the trauma patients – for those with a broken arm or leg. They won’t have to be moved onto the X-ray table. We can just use this detector.”





### **Sense and simplicity**

Advances in healthcare often come at the expense of overworked professionals. Yet it is the Philips philosophy to simplify, not complicate. Nystrom recalls initial skepticism of the wireless detector. “Our technologists were reserving judgment to begin with, thinking this was just another technology they had to learn. It’s amazing the rapid shift that occurred. In no time techs were really enjoying it and they continue to be excited about using it.”

“In fact,” says Roberts, “one of our techs described the technology as ‘gaining another room.’ That’s how much of an impact this has had – the freedom to image any patient, do any examination, with no limitations.”

Jim Roberts concludes, “I don’t think there is virtually any view that couldn’t be done using this wireless detector.”



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Printed in The Netherlands  
4522 962 62421 \* MAY 2010