

Making Trauma Imaging Easier and Faster with Ysio and wi-D

Advanced Radiographer and Team Manager, Susie Dick, of the Trauma and Orthopedic X-ray department at York Hospital, comments on their first experiences using Ysio.

Ysio, the new digital radiography (DR) system, is unique in offering a wireless portable detector (wi-D) that can be used in Bucky, in the table and wall stand, or removed completely to be placed underneath or next to the patient.

York Hospital, part of the York Hospitals NHS Foundation Trust, has equipped two rooms of its Emergency X-ray (A&E) Department with a fully automated, dual detector Ysio for front line trauma and orthopedic examinations. They have been examining patients with Ysio for approximately 5 months.

Susie, the two Ysio systems were installed in October last year. What are the first impressions of working with Ysio? After initially being a little skeptical of the automated movements and discovering a need for some changes in our working practice, we found it very simple to use; images are superb when compared to that of CR and conventional film and work throughput is quicker. More people now routinely use the automated movements and thus have reduced the complaints about work related musculoskeletal aches and pains.

What features on the Ysio do the radiographers like?

The wireless detector is fantastic; it enables us to obtain difficult images easily, quickly and without putting the patient in severe discomfort. The ceiling-suspended tube of Ysio can be moved into over 500 customized po-

sitions according to the set we have programmed, and the system will even hold small angulations. During system movement, it is much more convenient, as the movements of the tube and detector replicate each other to provide accurate tube centering or vice versa. For accurate fine-tuning, we have to adjust the tube manually, but the servo-assisted technology makes it light, flexible and ergonomic.

Which of the features are very commonly used and when are they used?

For a fast system setup, we now use the automated movements for nearly every examination. We also adopted the use of the wireless detector as opposed to CR cassettes, even for difficult, specialized projections. If we have to reject an unwanted image, it's carried out easily with only one mouse click. By using these features routinely we are able to cut the exam time significantly.

How is the handling of the wireless detector (wi-D)? Is the weight of 4.8 kg an issue?

With more than 100 examinations a day, detector weight was a major concern, but due to the slim and handy design the detector handling is definitely adequate.

Sometimes, if the patient cannot fully co-operate and the wi-D has to be placed behind a patient, detector handling can be a little awkward.

Is the wi-D used frequently for non-Bucky exposures?

There is a wide range of uses for the wireless detector. We use it for our entire extremity work like hands, wrists, feet, ankles or tib/fibs (lower leg). Also, for specialized projections like axial shoulders, we prefer using the wi-D instead of CR cassettes.

Especially for our trolley trauma work, the wi-D offers great flexibility, making exams that were previously rather challenging a little easier.

What comments do your colleagues have about MaxTouch? What difference does it make to the daily work routine?

We appreciate the ability to change menus and alter exposure directly from the tube head. It cuts down on walking back and forth to the control panel especially when people decide to change the projections they want to undertake. It's easy to adjust exposure factors or AEC chambers at this point, and even to change your detector workplace, i.e., wi-D as opposed to fixed detector for chest X-ray, for example.

What about the image quality of Ysio?

As a reporting radiographer, I've noticed that it shows much finer detail that may have previously been missed on other conventional imaging mediums.

Due to this image quality improvement, we don't necessarily use a secondary grid – which naturally results in dose reduction for the patients.

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Susie Dick, Department of Radiography, York Hospitals, York, United Kingdom



In general after working for 5 months with Ysio, is there a difference in the way the users are working? Initially, we left the patients waiting outside while we checked the images. Now we send the patients straight from the imaging room back to their original destination as we've become more confident.

An A&E department requires that X-rays are carried out rapidly for accurate diagnosis, thus improving patient throughput, and alleviating pressure on clinical staff is important.

Background information on York Hospital and the Trauma and Orthopedic Radiology department

York Hospital, part of the York Hospitals NHS Foundation Trust; is a district general hospital with around 750 beds. The main scope of the emergency X-ray workload is trauma and orthopedic imaging. The two rooms operate 24 hours a day with 4 different shifts and an average of 2 to 3 staff members per Ysio during each shift.

The staff also covers an additional workload of approximately 4,000 ward imaging exams outside normal working hours.

With these two radiographic rooms, approx. 34,000 emergency / trauma examinations and 17,500 orthopedic examinations are performed per year. Emergency work is expected to increase by approximately 6% over the next years.

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