



Making light work of bedside chest X-rays

Lightweight, maneuverable, and easy-to-use, the DR 100s is helping the busy North Middlesex University Hospital keep wait times for bedside imaging down, and radiology productivity up

CASE STUDY

North Middlesex University
Hospital NHS Trust, UK



Case Study

INTERVIEW WITH **MS DAWN HOPKINS**,
GENERAL MANAGER FOR CANCER AND DIAGNOSTICS,
NORTH MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST, UK

Located in the North London borough of Edmonton, North Middlesex University Hospital NHS Trust is one of London's busiest acute service hospitals. The busy 420-bed district facility keeps the radiology department staff active: the 125 staff members, including 7 radiologists, handle imaging for some 550 patients each day.

The need for bedside chest X-rays also keeps them on the move across the hospital: for pediatrics, neonatal, the ICU, the emergency department and resuscitation area, as well as for critically ill patients on the wards.





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Dawn Hopkins, North Middlesex University Hospital NHS Trust, UK



Efficient exams, at the bedside and along the corridor

In 2018, the hospital replaced its computed radiography (CR) mobile units with three Agfa DX-D 100 direct radiography (DR) mobile solutions. “But we found, in our busy hospital that three mobile DR units weren’t enough. The delays for some patients to get their bedside X-rays were longer than we wanted, and the machines were being transported long distances, which kept staff away from the radiology department for more time,” comments Ms. Dawn Hopkins, General

Manager for Cancer and Diagnostics at North Middlesex University Hospital.

Fully satisfied with the DX-D 100 systems and Agfa’s service, the hospital was eager to become a test site for the new DR 100s, which offered a remarkably narrow width and light weight combined with a powerful generator and Agfa’s ‘gold-standard’ image processing software. So, in 2020, the hospital added a new force to its mobile imaging, with two DR 100s mobile imaging solutions.

The right fit, with less disruption for patients and staff

Ms. Hopkins' criteria for a mobile imaging system are clear and precise: "The machine has to be maneuverable, light and get through doors easily. The equipment shouldn't be difficult or complicated to use. And when you position the tube head, it should be effortless, yet stay in place."


"The DR 100s units fit right into our service: the radiographers like that the machine is easy to use, and it is quick to start up and set up by the bedside. Which means our mobile exams are more efficient, and that there is less disruption for the patients and staff," she explains.

The staff can see the image very clearly in the 22-inch screen, to

immediately make sure that it has the anatomy and pathology needed, reducing unnecessary repeats, as well.

"We can also give the doctor a quick overview immediately. For example, we can confirm to them the proper, safe placement of a nasogastric tube placement, right there in the ward. Overall, the physicians are very happy with the image quality: the images are sharp, clear and aid diagnosis."

The dose control tools in the MUSICA workstation also increase the delivery of patient care: "The staff are really keen on these: it's an intuitive interface and makes radiation control easy but precise. They can make sure the dose is appropriate but minimized."

 The DR 100s feels as if radiographers had input into the design."

Dawn Hopkins,
North Middlesex University
Hospital NHS Trust, UK



Agfa Solutions

DR 100s mobile imaging unit:



Exceptional **maneuverability** and **ergonomics**



Outstanding **comfort and safety**¹ for patients and staff



Easy set-up and use at bedside, for **enhanced productivity**



Immediate image preview on 22" screen, in the ward



Excellent DR **image quality** and potential for **dose reduction**



Designed with the **radiographer in mind**



MUSICA Chest+ software for gridless **bedside chest imaging**



Handy, practical features including a FreeView telescopic column, 10" tube head display for easy adjustments, and anti-theft mechanism



Safer¹, faster, more convenient mobile imaging

The DR 100s is also easier on the radiography staff: "The telescopic column makes it easier to safely move around," she explains. "And the light-weight detectors reduce the risk of musculoskeletal issues, which can be a real hazard in this field. Overall, the efficient set-up and ease of use make the radiographers feel safer."

"The DR 100s feels as if radiographers had input into the design," Ms. Hopkins specifies. "For example, the 10" display screen on the tube head eliminates the need to move back and forth around the patient while setting up. The tube head

itself is lighter. Sometimes they can be quite stiff, but the tube head on the DR 100s is easy to maneuver and responds well to the positioning. And most importantly, it doesn't move when you let go."

The practical design features are appreciated as well: "One 'hazard' of a mobile imaging unit is the risk of running over the electrical cord, which puts the machine out of action until it is repaired. But the DR 100s won't move until the cord is retracted. The anti-theft locking for the detectors also gives us peace of mind when we need to park the unit somewhere."

¹ Results vary depending on environment and use.

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Dawn Hopkins, North Middlesex University Hospital NHS Trust, UK



MUSICA gridless bedside imaging

As the mobile DR units are used exclusively for chest X-rays, the MUSICA Chest+ software for gridless imaging has been a big advantage for the radiographers and patients, says Ms. Hopkins. “We were using a grid before; it’s very heavy for the radiographer and uncomfortable for the patient. So it was a real advance to be able to do gridless bedside imaging. The image quality is actually better compared to our old CR mobile equipment. And it

means less cleaning: you only have to clean one item instead of two.”

She concludes: “The DR 100s has met all our expectations. It’s good for all our mobile chest imaging in the hospital. In fact, I can’t think of any mobile imaging situation for which it wouldn’t be suitable. Not only do the staff like working with it, but as a manager, I am reassured that it is safer for the radiographers to use, while also increasing productivity.”



Photos by Harriet Armstrong, North Middlesex University Hospital

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