



**AGFA**  
**RADIOLOGY**  
SOLUTIONS

## On the fast track, in the resuscitation area

Combining rapid, high-quality images with an agile design, the DR 100s is helping staff at Watford General Hospital's busy A&E provide top care to critical patients, while supporting a smoother, faster experience for everyone.

# Case study

## Interview with Antony Butcher, A&E Radiographer



In March 2020, Watford General Hospital, part of the West Hertfordshire Hospitals Teaching NHS Trust (UK), fitted two X-ray rooms in its emergency department with Agfa's top-of-the-line DR 600. At the same time, the mobile computed radiography (CR) unit in the resuscitation area was replaced with the DR 100s direct radiography (DR) unit. "In the resuscitation room, time is of the essence for patient outcomes, and the DR 100s delivers," comments Antony Butcher, A&E Radiographer for Watford. But that's just one of the benefits this busy A&E has seen, thanks to the customer-driven design of the agile and ergonomic DR 100s.

### Did you know

- Watford General Hospital's A&E handles about 140,000 patients per year, and is steadily getting busier each year. The resuscitation area often deals with around 90 patients in a 24-hour period, all of whom require immediate care, and are the priority for the emergency staff.
- Antony Butcher was Lead A&E Radiographer when the DR 100s and two DR 600 units were installed. He recently retired, and then returned: he is now a Reporting Radiographer, and still supports his colleagues in the busy emergency department.



**“With the DR 100s, after pressing the exposure button, we get the image in moments instead of minutes ... This means there is no delay in the treatment we can give the patients.”**

**Antony Butcher**  
Radiographer A&E

### **Instant images, when every second counts**

The resuscitation area holds a unique place in the busy emergency department. Here, the patients requiring the most urgent, life-saving care are identified, assessed and treated. “In the resuscitation area, every moment really does count,” comments Antony. “So speed is critical. The DR 100s helps us deliver that speed. With our previous CR system, we would take the image, walk the cassette around to the CR reader in the X-ray department for digitization, then send the digitized image to the doctors. But with the DR 100s, after pressing the exposure button, we get the image in moments instead of minutes.”

Very often, he adds, the doctors are looking over the radiographer's shoulder, right next to the patient, to get a first glimpse of the image on the mobile unit's large 22" monitor. “We use this monitor for setting exposure, etc. But we can also view the pictures we take on it; for instance, we can expand an image so that it fills up the screen. The doctors don't even have to wait to receive the image on their own computers to get that first view. This means there is no delay in the treatment we can give the patients.”





**“The DR 100s is compact and easy to use and move. The unit’s design is clearly thought out for the digital workflow, with a touchscreen that is located front and center. Our radiographers appreciate the easy-to-move tubehead, as well, which locks in place by simply releasing the switches.”**

**Antony Butcher**  
Radiographer A&E



## Better information for urgent decisions

In addition to the 'immediate' image access, the DR 100s also enables the radiographers to ensure that the doctors have the image details they need faster. "If part of the chest or an apical zone of a patient who is immobilized on a trauma mattress, for example, is missing in an image, we can see this immediately and do a retake while everything is still in place. Not only does this save even more time, but the doctors have better quality information for decisions that need to be made fast."

The focus of the resuscitation area is ABC: Airways, Breathing and Circulation. "We do mostly chest X-rays. In a trauma patient, for example, we might be looking for rib fractures or collapsed lungs that could impact cardio resuscitation efforts. We can also use imaging to confirm major fractures leading to major blood loss, thus helping to stabilize the patient."

The department also has a separate pediatric resuscitation area. "In that area, we are mostly dealing with respiratory arrests rather than cardiac arrests – children with severe asthma events, for example – as well as trauma patients. This can include neonatal patients in incubators. In addition to our 35x43cm detector, we have a smaller 24x30cm detector that fits into the incubator bucky trays, so we can take images without disturbing or moving the child. That is always better for small babies' outcomes."

## Easy to use and maneuverable

The resuscitation area is made up of several large cubicles, which contain all of the vital equipment that is needed. The size and maneuverability of the DR 100s are thus very important. "The DR 100s is ideal for this environment: the machine is compact and easy to both use and move. The unit's design is clearly thought out for the digital workflow, with an easy-to-clean touchscreen that is located front and center. Our radiographers appreciate the easy-to-move tubehead, as well, which locks in place by simply releasing the switches."

As long-term Agfa customers, the radiography staff at the Watford General emergency department are familiar with the software used in all Agfa CR and DR systems. Antony explains, "Once you know the software, you can use any of the Agfa equipment without having to switch your mental gears."

Furthermore, having the same software platform for the mobile unit and the main X-ray rooms makes the images easy to compare. "We can check at a later time or date whether a treatment has been successful, and we can monitor the position of tubes, wires, catheters, etc., by comparing new images with the originals from the resuscitation area."



# Agfa solutions

## DR 100s:



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



**Immediate image preview** on 22" screen, in the ward



**10" tubehead display**, for bedside adjustments



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



**Outstanding comfort** for patients and staff



Designed with the **radiographer in mind**



**Can be used with detectors of different sizes**, including one small enough to fit in an incubator bucky tray



**Fast time** between arriving at the machine and arriving at the bedside.



## “Imaging is part of the A&E team, so faster images help the entire team”

The DR 100s is very popular with the entire A&E radiography team, but it spends the vast majority of its time in the resuscitation area. “We will wheel it into the pediatric resuscitation area, which is close by, and if someone really needs it elsewhere, we may let them take it for a very short time. But we don’t like it to go too far, because it has to be on-hand under unpredictable circumstances,” says Antony.

Despite keeping to the resuscitation area, the speed of the DR 100s impacts everyone in the emergency department, including patients. “The resuscitation room is always the priority for staff. But because the imaging is so much faster with the DR 100s, our radiographers are done more quickly, and can return to the general tasks of the busy department. Imaging is part of the emergency department team, so by speeding up imaging, the DR 100s helps the productivity of the entire team. Furthermore, not only do the critical patients get faster care, but so do the other patients, thanks to shorter waiting times. So everyone benefits.”

## MUSICA® Catheter Processing

While all Agfa DR and CR solutions come with the 'gold-standard' MUSICA image processing software, the DR 100s in Watford General Hospital's resuscitation area also has a dedicated MUSICA Catheter Processing module. This software uses specialized image processing algorithms that are tuned to enhance the visibility of the fine, translucent catheter material in a way that improves edge and tip detection. "It's very important for siting nasogastric tubes, or checking drains or wires that have been inserted in the resuscitation room or elsewhere. The clinician can identify where the tip of the wire or catheter is, and confirm it is in the correct place, enabling them to start treatment immediately. So, it is another time savings, in a place where time is everything."



## Reaching beyond the emergency department walls

One feature of the DR 100s that Antony highlights is its connection to the hospital Wi-Fi, enabling faster access to images for diagnosis and clinical review. "With the DR 100s connected to the intranet, we can send images immediately, not only to the A&E doctors, but to a consultant elsewhere – whether in the hospital or working remotely. This is a great advantage!"

Antony concludes, "The DR 100s is an excellent machine: robust, powerful and adaptable. We mainly use it in A&E, but if needed, it can also act as a temporary back-up in an X-ray room. I wouldn't hesitate to recommend it to another hospital, and not only for the emergency department: it's a good general machine for a broad range of X-ray applications."



**"In addition to our 35x43cm detector, we have a smaller 24x30cm detector that fits into the incubator bucky trays, so we can take images without disturbing or moving the child. That is always better for small babies' outcomes."**

**Antony Butcher**  
Radiographer A&E

# AGFA RADIOLOGX SOLUTIONS

Follow us:



[agfa.com](https://www.agfa.com) » Septestraat 27 - 2640 Mortsel - Belgium

Agfa, the Agfa rhombus and Musica are trademarks of Agfa-Gevaert NV, Belgium or its affiliates. All rights reserved. All information contained herein is intended for guidance purposes only, and characteristics of the products and services described in this publication can be changed at any time without notice. Products and services may not be available for your local area. Please contact your local sales representative for availability information. Agfa-Gevaert NV diligently strives to provide as accurate information as possible, but shall not be responsible for any typographical error.

© 2022 Agfa NV - All rights reserved - Published by Agfa NV

EN 202306