

Belgian Neonatal ICU Selects Agfa HealthCare's Mobile Wireless DR Solution



DX-D 100 DR was selected for its excellent MUSICA image quality and user friendly workflow

- Solution offers excellent image quality, flexible handling and fast imaging that can be validated immediately.
- Technical requirements for UZ Leuven included a high quality detector that can fit into an incubator X-ray tray, correct collimation and acquisition settings, and image post processing specially tuned for pediatric and neonatal imaging.
- Agfa HealthCare and UZ Leuven are collaborating on a scientific study about obtaining the lowest possible dose yet with diagnostic image quality.

Agfa HealthCare announces that the pediatric radiology department of University Hospitals Leuven (UZ Leuven) in Belgium has chosen to install a mobile DX-D 100 direct radiography (DR) solution with DX-D 35C digital wireless detector for its neonatal intensive care unit (ICU).

The solution was selected to meet the extremely high and stringent requirements of this department: "The smallest children need the most sophisticated imaging techniques," explains MD.,PhD. Marleen Smet, Radiology, UZ Leuven.

Medical imaging supports short- and long-term care

UZ Leuven is one of Belgium's largest hospitals, with nearly 2000 beds and a staff of some 8800. It offers a combination of research, teaching and multidisciplinary patient care. The neonatal ICU has 40 beds. Patients can range from extremely premature infants weighing only 500 grams, to full-term babies weighing between 2500-4000 grams.

Medical imaging is very important for the short- and long-term care and health of these patients: early diagnosis supports improved therapy, which must be closely followed. Patients must also be carefully monitored for potential complications. This includes e.g. follow-up of lung disease and abdomen and control of external supports such as catheters.

Dose control, resolution and dedicated image processing

In total, the neonatal intensive care unit carries out an average of 1039 X-rays per year. Many patients need multiple X-rays. Controlling radiation dose is especially important, because of the patients' increased sensitivity to ionizing radiation.

As a result, the technical requirements for a mobile DR solution were very stringent, including a sensitive detector with high resolution, correct collimation, accurate acquisition settings (weight adapted) and adapted image post processing.

UZ Leuven decided to adopt Agfa HealthCare's mobile DX-D 100 with DX-D 35C digital wireless detector, due to the excellent MUSICA image quality and the user-friendliness of the system. This includes the easy manipulation of the X-ray tube, the smooth maneuvering of the system and the long battery life. In addition, they appreciated the scientific collaboration with Agfa HealthCare, studying dose control and reduction.

Confident, convenient mobility and image quality

The mobile DX-D 100 offers excellent image quality, flexible handling and fast imaging that can be validated immediately. The convenient dimensions of the DX-D 35C make it an excellent solution for imaging of premature infants. With its smaller-than-standard 35 x 27.4 cm effective image size, and 38.4 x 30.7 cm detector housing size, it can fit into an incubator X-ray tray.

The solution comes with MUSICA image processing, specially tuned for neonatal post processing. It offers optimal visualisation of low-contrast details next to high-contrast structures, resulting in a nicely balanced display of both soft tissue and overlapping bone structures, high level of detail in the mediastinum, visualisation of subtle details in the abdomen and sharp trabecular and cortical bone. There is little or no need for extra manual post-processing, and it provides consistent, high image quality (avoiding retakes) and great detail, as well as improved workflow. The high image quality also means potential dose reduction for patients and operators.

Source: [Agfa Healthcare](#)

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