

Re-engineering radiography for better patient care

For the Heart Institute of the University of São Paulo's Faculty of Medicine, Agfa Radiology Solutions' digital imaging solutions are helping put workflow and cost efficiency to work for better patient care.





Case study

Interview with: Cícero Marcelio, Director of Clinical Engineering at InCor

With more than 400 beds and eight specialized institutes, the Clinical Hospital of the University of São Paulo Faculty of Medicine (HC-FMUSP) stands out as the largest hospital campus in Brazil and Latin America. This vast medical hub relies on advanced technologies to uphold its mission of delivering top-tier patient care. At the Heart Institute (InCor), this includes technologies for efficient and accurate medical imaging, which is vital for timely diagnosis and treatment.

Cícero Marcelio, Director of Clinical Engineering at InCor, explains how Agfa Radiology Solutions' digital radiography solutions, including the DR 600 and DR 100e, have transformed the institute's workflow, patient care and overall efficiency.



Harnessing the benefits of digital

Prior to adopting Agfa's digital radiography solutions, InCor faced increasing obstacles in its radiology workflow. "Our existing equipment was outdated, slow and increasingly expensive to maintain," Cícero recalls. "We encountered frequent delays in processing exams and image availability, which directly impacted patient care. The older systems were not well-designed for patient comfort or ease of use, especially for pediatric patients and those with co-morbidities. Exams often had to be repeated and waiting times were long."

The limitations of the older systems were especially evident in critical care scenarios, where timely diagnosis is vital. "The technology simply wasn't aligned with the needs of a highly complex hospital environment like ours," Cícero explains.

Speed, image quality and patient flow

The decision to upgrade to Agfa's ceiling-mounted DR 600 and mobile DR 100e X-ray unit marked a turning point for InCor. "From the moment we integrated the Agfa Radiology solutions into our workflow, the difference was clear," says Cícero. "The clinical feedback I receive is that the DR 600 offers truly excellent image quality and speed, and has shortened examination times, which reduces waiting times for patients."



Cícero also highlights the ability to view images immediately on the mobile DR 100e' integrated monitor. "In addition to our analogue equipment, we previously had a CR system, which had to send images to the PACS before they could be viewed. But with the DR 100e, doctors can view high-quality images directly on the widescreen monitor on the unit itself. This enables the clinical team to take immediate medical action when needed."

With the DR 600 and DR 100e, the radiology team has reduced exam times, minimized repeat imaging, and expanded services to more patients with different profiles. "With our analogue systems, it was difficult to accommodate certain patients, especially those with mobility issues or complex conditions. But with Agfa's digital solutions, we can provide high-quality imaging for all patient groups without compromising on speed or safety."





"We've reduced maintenance expenses, increased throughput, and minimized the need for repeat exams. These efficiencies translate into better resource allocation, ultimately benefiting both the hospital and our patients."

Cícero Marcelio

Improved system availability

In terms of clinical engineering, the impact of the Agfa Radiology Solutions equipment was immediate and measurable. "We've seen significant improvements in our key performance indicators," Cícero notes. "Our availability indicators, mean time between failures, and mean time to repair have all improved. Maintenance costs have dropped, and the number of exams performed per month has increased substantially."

Reliability, support and training

In addition to technological advancements, Cícero highlights Agfa Radiology Solutions' customer support and training services. "The training sessions were wellorganized and tailored to our team's availability. We didn't encounter any issues, and the radiology staff quickly adapted to using the equipment."

Agfa Radiology Solutions' technical support is also meeting the hospital's needs and expectations. "The support team responds quickly, for instance when we've requested technical documents or help. And Agfa's service team has consistently delivered timely assistance with trained professionals," Cícero says. "This reliability is crucial for us to maintain high standards of patient care."

Advanced technology brings cost and care benefits

From a financial perspective, the transition to Agfa Radiology Solutions' digital radiography has led to significant cost savings. "We've reduced maintenance expenses, increased throughput, and minimized the need for repeat exams. These efficiencies translate into better resource allocation. ultimately benefiting both the hospital and our patients."

Enhanced patient outcomes

Cícero confidently recommends Agfa Radiology Solutions to other healthcare institutions. "The imaging solutions are robust, reliable, and perfectly suited to the demands of a highly complex hospital like HC-FMUSP."

For InCor, he concludes, the benefits of the Agfa solutions go beyond operational improvements—they also align with the hospital's mission: "We used public resources for these acquisitions, so it is essential that the investment supports our social purpose. This has been fulfilled through enhanced patient outcomes, reduced queues, and more efficient use of healthcare resources."





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Agfa Radiology Solutions' systems



DR 600

The **DR 600** is a high-productivity, fully automatic, ceiling-suspended, direct radiography X-ray room. It streamlines workflow and increases throughput, making it ideal for complex care environments such as the HC-FMUSP.



The mobile DR 100e

DR 100e is your compact mobile imaging system that makes bedside and ICU imaging convenient and cost effective. The powerful X-ray generator and excellent Direct Radiography (DR) quality, including MUSICA® image processing, provide exceptional performance. Adding SmartRotate puts Agfa's proven imaging expertise into play, automatically and intelligently presenting images ready for viewing.

POWERED BY MUSICA

Like all of Agfa Radiology Solutions' DR systems, the DR 600 and DR 100e are **powered by MUSICA**°, with a single, intuitive user interface for smooth, efficient DR imaging. The gold-standard MUSICA° image processing software provides "first time right" imaging, reducing retakes and supporting ALARA (as low as reasonably achievable) principles for radiation dose.

AGFA RADIOLOGX SOLUTIONS

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