

## CUSTOMER CASE

“Thanks to MUSICA<sup>2</sup>,  
the continuous  
quality seen in all  
images means better  
diagnostic confidence  
for the radiologist.”

*Andrew Featherstone,  
Section Manager,  
General X-ray and Theaters*



Sydney Adventist Hospital, Australia

# Hospital moves to mobile DR to **handle** **rising service demands**

Major Australian hospital expands its clinical facilities including X-ray to meet an expected 60% increase in demand for services



“The DX-D 100 speeds mobile workflows thanks to the near-instant availability of images and data on IMPAX, uploaded right at the patient’s bedside.”

*Geoffrey Andrews,  
Director of Operations,  
Radiology*



In a regional first, Sydney Adventist Hospital installs two DX-D 100 mobile DR solutions with wireless detectors to expedite images/data to PACS, HIS and beyond.

Its original name was The Sydney Sanitarium, which is why today’s 500-bed Sydney Adventist Hospital is still known locally as “the San”. Throughout the Asia-Pacific region, the San is highly regarded for its charitable work in developing nations with the 1986 launch of the HealthCare Outreach (HCO) Program. Since then, almost 100 HCO trips to 13 countries have been made with over 3,000 free surgeries performed.

In Sydney, the hospital’s reputation focuses on cardiology (Australia’s first integrated private cardiac center), orthopaedics including sports medicine, cancer treatment and support, and New South Wales’ largest private emergency care service. About 2,200 staff and 700 physicians provide services to more than 50,000 inpatients and over 160,000 outpatients annually.

### Limited space and aging population impact Sydney’s need to grow

While many nations feel the pinch of the global financial recession, Sydney’s economy has remained

strong. This has resulted in many new residents from within Australia as well as expatriates. Yet the city is bounded geographically by its famous harbor to the east, preserved national parkland to the north and south and mountains to the west.

“Go about 30 km in any direction and you reach the city’s limit,” says Geoffrey Andrews, Director of Operations for Radiology. “We can’t grow outward anymore. Existing infrastructure and facilities have to adapt within these limits to handle the increasing population.”

For the San, a major expansion of its original Clinical Services Building and adjacent structures is currently underway to meet an expected 60% increase in demand for medical services between now and 2026. “It’s about more people living in our service area, especially the aged,” he says. “Working faster and smarter means adopting new practices made possible by the latest advances in technology.”

In radiology, this means new solutions to expedite workflow and disseminate information to keep healthcare processes flowing smoothly. But solving a vexing bottleneck at the San involved mobile radiology. Says Andrew Featherstone, Section Manager, General X-ray and Theaters, “We’ve been using mobile CR to perform bedside exams throughout the complex, including surgical theaters,

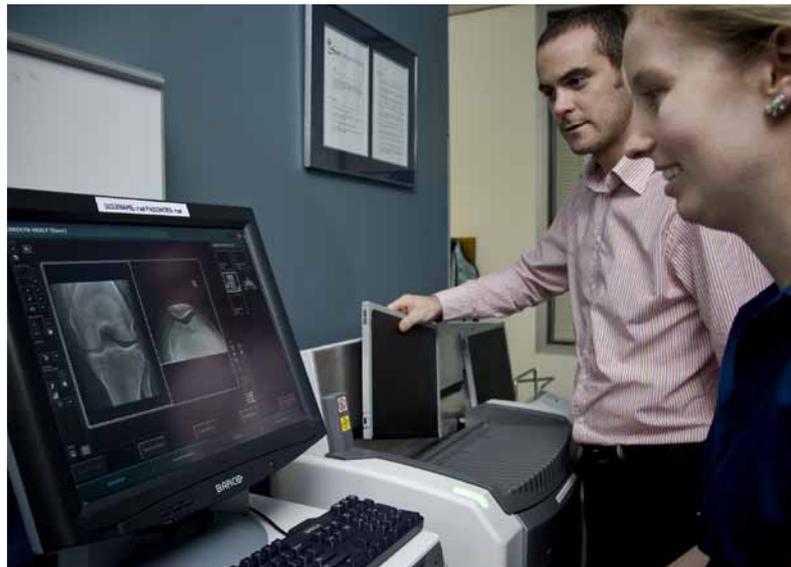


**DX-D 100**  
Mobile DR solution  
with wireless detector

- Fast assessment of images after exposure
- Improved patient and operator comfort
- Higher image quality for improved diagnostic confidence
- Cesium Iodide DR detector for higher sensitivity (DQE)
- MUSICA<sup>2</sup> image processing software for outstanding contrast detail and exam-independent, consistent image quality
- Excellent connectivity to PACS, HIS/RIS and imagers
- Wireless detector means no attached cable; improved flexibility

**Agfa HealthCare's contribution**

- The DX-D 100 mobile DR solution for bedside or emergency use performs a wide range of general X-ray studies, even for the least mobile patients. Short exposure time means images are immediately available for validation following acquisition. Its wireless functionality supports quick, seamless integration with RIS/PACS or HIS.



accident & emergency medicine, intensive care and neonatal care units. But after every procedure, exposed phosphor plates had to be walked back to radiology for processing before uploading on our IMPAX PACS. It could take 15 minutes to a half-hour to complete this step.”

While attending a recent Radiological Society of North America (RSNA) exposition, Geoffrey Andrews and a team from the San saw a demonstration of Agfa HealthCare’s original DX-D 100 mobile DR solution. With today’s wireless connectivity, he and his team were intrigued by its ability to quickly link to IMPAX along with its excellent image quality. “Wireless linkage truly speeds mobile workflows thanks to the near-instant availability of images and data on IMPAX, uploaded right at the patient’s bedside,” Geoffrey Andrews says. “We saw great potential to schedule more mobile exams throughout the hospital because technologists didn’t have to continually run back and forth to process plates.”

**Consistent image quality across modalities a key MUSICA<sup>2</sup> benefit**

Another benefit is the mobile solutions’ ability to run all images through MUSICA<sup>2</sup> image processing software. “All our image sources, from multiple, general procedure rooms to Agfa HealthCare’s DX-G CR system, now display consistent image quality across exam types thanks to the high-quality uniformity this software adds,” says Andrew Featherstone. “The DX-D 100 brings bedside mobile procedures up to this high level so all imaging has the same look, feel and detail regardless of its source.”

The DX-D 100 was chosen following various on-site evaluations for image quality, connectivity, and user friendliness. One benchmark



### Did you know ...

- Dr. M. Kellogg, who founded the original Sydney Sanitarium, was the brother of Dr. John Harvey Kellogg, inventor of the corn flake breakfast cereal still sold under the Kellogg name.
- The San is first to have Agfa HealthCare's DR mobile units with wireless detectors, not only in Australia, but the entire Asia-Pacific region.
- The San's expanded Clinical Services Building will include space and facilities to support up to 14 new operating theaters, 180 inpatient beds, an Integrated Cancer Center and new patient arrival area. Estimated construction costs are 148 million EUR.

involved comparing image results from three different vendors. "Images from the various solutions were sent to one of our radiologists, who reviewed them in detail," says Geoffrey Andrews. "We were already sold on the DX-D 100's light weight, easy mobility, user-friendly operation, and wireless IMPAX connectivity. Now, image quality would be the deciding factor." Reviews were conducted 'blind', meaning only a select few in radiology knew the source of the trial images.

"The image quality of the DX-D 100's needle phosphor plates was at the top of the range," adds Andrew Featherstone. "The contrast, latitude and detail in all images covering various exams mean better diagnostic confidence for the radiologist." Two DX-D 100 mobile solutions were deployed at the San in mid-January.

Almost immediately, management wanted to evaluate a novel time- and work-saving feature involving the DX-D 100 and the San's customized RIS. Andrew Featherstone says, "We're now experimenting with registering new ward and emergency admissions directly to our RIS through the mobile DX-D 100. We're pushing the boundaries to see how much efficiency can be gained to meet the challenges ahead." Overall, the department hopes to achieve a 25% productivity increase in performing mobile exams and dispatching radiologists' reports as a result of the DX-D 100's many time-saving features predicated on quick access to images.

Andrew Featherstone adds an underappreciated DX-D 100 benefit is actually quite valuable; the untethered cassette. "Not having a cable dragged about the floor and in contact with the patient's bed goes a long way to reduce potential tripping hazards, especially in emergency situations where everyone moves quickly." •

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