# CUSTOMER CASE



Miami Children's Hospital, Florida USA

# DX-S CR solution cuts x-ray dose up to 20 percent at busy pediatric centers

Groundbreaking system fills gap between current DR solutions with a level of speed, flexibility and image quality



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Founded in 1950, 289-bed Miami Children's Hospital (MCH) is South Florida's only specialty hospital just for children, renowned nationally for excellence in all aspects of pediatric medicine. Its staff numbers 650 doctors supported by 2,000 clinical/management employees. It's an American Nurses Credentialing Center (ANCC) 'Magnet Facility', the profession's most prestigious institutional honor.

#### Ambulatory sites open days and weekends

Ambulatory medicine plays a big part in MCH operations, handling a wide range of urgent or elective cases not requiring hospitalization. Services are so much in demand that MCH maintains four separate ambulatory centers in densely populated Dade and Broward Counties, with planned expansion to Palm Beach County. Weekends are busiest, with 12-hour daily availability at all locations.

"Our primary goal is to provide excellent care and to be where the children are," says Al Rego, MBA, RT (R), (CT), (MR), ARRT (the American Registry of Radiologic Technologists), the hospital's Regional Director of Ambulatory Services, in explaining the long hours and future growth in Miami's huge metro area. Another goal is to provide service and caring excellence, which in pediatric radiology, means obtaining excellent image quality at a low dose in a short amount of time.

Two of the newest MCH ambulatory centers providing urgent care services, Dan Marino and West Kendall, are 20 miles apart and perform primarily chest, extremity and skull studies using older CR units. Pediatric cases at the main hospital use multiple DR systems. "By staying informed, we realized new CR technologies and software were available that could help us strive for the holy grail of pediatric imaging – that fine balance of low x-ray dose with high image quality across a wide range of studies," says Al Rego.

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He then attended a demonstration of Agfa HealthCare's DX-S CR solution at a nearby general hospital. "I liked the system's speed, flexibility and images it produced and asked for a demo unit for one of our centers," he added. To conduct a thorough, unbiased evaluation, another company's CR system was also made available.

# DX-S

- Increased image quality with reduced x-ray dose thanks to DirectriX needle detector.
- High speed imaging through Scanhead line-to-line CR stimulation.
- Excellent portability, designed for decentralized use in general, mergency and pediatric procedure rooms.
- Meant for near-patient use, creating more patient comfort and quick image QC and processing that speeds exam time.

"We evaluated the other system for a few weeks," Al Rego says. "But when the DX-S unit was set up, it could only be kept a few days. Yet despite that comparatively short evaluation, our chief of radiology, technologists, department managers and QA professionals were so impressed with its performance, easy operability, and image quality that the decision was quickly made to acquire two with plans for another two in 2010."

#### Superior technology makes for better CR

Two unique attributes separate DX-S from all other CR systems: its proprietary DirectriX needle-based detector and scanhead line-to-line CR stimulation and light collection technologies. These components significantly increase image quality and consistency using minimal x-ray doses. They also provide rapid access to digital images and reduced waiting times for reusable cassettes, thereby speeding workflows.

"Its throughput is impressive for a single plate reader," says Al Rego. "Patient data is imaged onto the cassette very quickly. Then, insert the



# Agfa HealthCare's contribution

DX-S system with needlebased CR and MUSICA<sup>2</sup> process enhancement software providing optimal, consistent image quality that's exam independent. Delivery of patient care is enhanced through more expedient workflows.

# Did you know ...

- MCH's Dan Marino Center is named for a Miami Dolphins football player, considered one of the greatest quarterbacks in US football history.
- Miami is America's fourth largest urban area after New York, Los Angeles and Chicago.

exposed cassette in the DX-S, and the image is transferred in seconds, freeing it for the next exam."

The unit's compact design and footprint makes it ideal for decentralized use such as pediatric facilities or outpatient centers. Al Rego adds the system's MUSICA<sup>2</sup> image processing and enhancement software is an extremely important benefit that technologists and physicians like.

"It's very user friendly, and technologists in particular love it," he says. "MUSICA<sup>2</sup> was one of the key deciding points in the system's favor during our short, on-site evaluation." The software optimizes image quality by automatically and consistently adjusting density and contrast of anatomic detail, reducing the need for windowing and leveling. Al Rego adds: "Dose levels in all techniques have been lowered between 10 and 30 percent versus the original CR system."

He says delivery and installation coordination as well as technical support from Agfa HealthCare made the transition at both sites go very smoothly. "As a registered Radiology Technologist, I appreciate the many Agfa HealthCare specialists and key account executives who are also registered and previously worked in the field. It's highly professional, and shows the company truly understands the customer."

Perhaps the new system's finest compliment came in a concise e-mail from MCH's Chief of Radiology. Says Al Rego: "I had sent him eight recent studies in an attachment just on an informational basis. The reply I received read, 'Congratulations – they look great'." •

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