Beyond the Bore

October 2006

News about Philips Panorama 1.0T

Efficient Panorama 1.0T distinguishes busy Italian imaging center

Radiologists at Studio Radiologico Siderno (SRS) in Siderno, Italy, discovered that sacrificing field strength to obtain the benefits of an open system architecture was an unacceptable compromise. The center had purchased a 0.2T open system in 2004 and found that the system had a limited clinical repertoire, provided less-than-satisfactory diagnostic quality and could not keep up with the high caseload of the independent, free-standing imaging center. Clinicians turned to Philips again, as they had done in 2002, when they acquired their Intera 1.5T system (since upgraded to FreeWave). In Panorama 1.0T, SRS radiologists found an open, high-field system with image quality rivaling their 1.5T system.

"The Panorama 1.0T offers a great deal of versatility and extremely good throughput potential."

"The Panorama 1.0T offers a great deal of versatility and extremely good throughput potential," says Demetrio Zema, M.D., who oversees MR Imaging at SRS, a bustling center staffed by 11 radiologists, 15 technologists and 26 additional employees. "This system also impressed us as being very patient-friendly with an extremely spacious patient aperture."

Panorama 1.0T is companion with Intera 1.5T

Far from serving as an adjunct or overflow scanner for SRS, Panorama 1.0T effectively doubles the clinic's throughput – validating SRS clinicians' intentions to use Panorama 1.0T in parallel with their existing 1.5T system.

Studio Radiologico Siderno Technician Emilio Valenti explains the MR exam to a child and her mother.

"Each system is capable of scanning about 40 to 45 patients per 13-hour day, which most likely makes SRS the most productive MR center in Italy," says Tonino Strangio, who is responsible for diagnostic imaging productivity at SRS.

Carlo Frascà, M.D., quality manager at the center adds: "For sure, in Calabria, SRS has one of the widest ranges of

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diagnostic modalities, including 64-slice CT, digital radiography, digital mammography, Doppler echocardiography and dental diagnostic imaging."

A number of key factors contribute to the Panorama 1.0T system's high throughput capacity, according to Dr. Zema. SENSE and Balanced FFE are available on the scanner, which greatly reduce acquisition time. In addition, Panorama 1.0T is compatible with Philips-exclusive ExamCards – complete, standardized – yet customizable – pre-set protocols that start at a single touch and can be exchanged among users.

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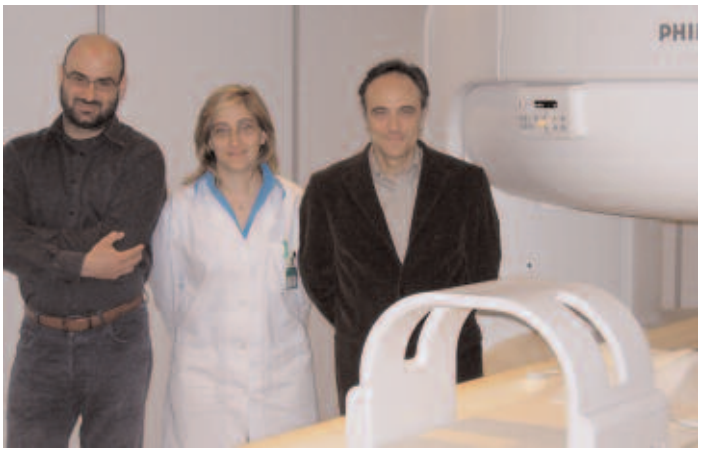
"The examination time on Panorama 1.0T ranges from just 10 to 15 minutes thanks to the optimization of ExamCards," explains Strangio. Without compromising image quality, the center has reduced examination time due to the flexibility of the system and the extensive MR imaging experience of the staff.

Strangio adds that the patient-friendly architecture of Panorama 1.0T makes patients more amenable to cooperating with technologists in exam preparation steps, such as positioning of RF coils.

Excelling in musculoskeletal imaging

The spaciousness of the bore interior helps Panorama 1.0T excel in musculoskeletal imaging, particularly when the region-of-interest is offset anatomy.

Pasquale Migliaccio Spina, M.D., (standing) reviews images with technician Emilio Valenti.



(l. to r.) Carlo Frascà, M.D.; Mrs. Cristina Perrone; Demetrio Zema, M.D., at Studio Radiologico Siderno in Siderno, Italy.

"For hips, wrists and shoulders, there simply is no comparison with cylindrical systems," Dr. Zema observes. "By being able to image this anatomy at the magnetic isocenter, Panorama 1.0T image quality is equal to and often better than that of our 1.5T system in many musculoskeletal examinations, which constitute 40 percent of the open system's caseload."

Positioning challenges and claustrophobia that accompanied some MR studies in the cylindrical bore 1.5T system seem inconsequential with Panorama 1.0T. "About 5 percent of our patients are claustrophobic," Strangio remarks. "With Panorama 1.0T, in several cases, we reduced the use of sedation and at the very least decreased the number of patients refusing their MR examinations."

Dr. Frascà adds that Panorama 1.0T is a favorite among elderly, pediatric and generous-sized patients.

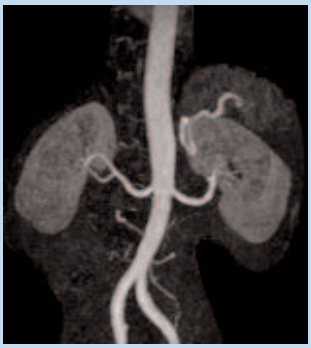
Referrals swelling

Despite its location in a competitive area in Calabria – among 17 other public and private MRI facilities – SRS draws referrals from all over Calabria and eastern Sicily by virtue of its top-flight medical and technical staff and most certainly due to its equipment, Dr. Frascà says.

"Panorama 1.0T now provides us with a unique solution for referring physicians to offer their claustrophobic and elderly patients, in particular, but also the bulk of their patients," Dr. Zema says. "Panorama 1.0T is essentially an open system that also happens to afford high-field performance."

CLINICAL CASE Study

The Panorama 1.0T allows "Beyond-the-Bore" exams that are either not possible in cylindrical scanners or extremely difficult, enabling you to offer a wider range of services to referring physicians. The clinical case study in this issue highlights the Panorama 1.0T's capability to excel in routine angio imaging of a large patient.



Large patient (425 lb.) who could not fit in cylindrical system. 3D high resolution CE-MRA of the renal arteries using the Integrated Body coil. Voxel size: 1.0 x 0.7 x 1.5 mm.

3D CE-MRA of the peripherals, 3 station single injection, stations fused with MobiView

3D high resolution CE-MRA of the carotids using ST Neck coil. CENTRA to avoid venous enhancement. Voxel size: 0.7 x 0.6 x 0.8 mm.

3D high resolution CE-MRA of the abdominal arteries using the ST Body-M coil. Voxel size: 1.0 x 0.7 x 1.5 mm.

Images courtesy of: Saint Barnabas Ambulatory Care Center, Livingston, New Jersey, USA
NEWisconsin MRI Center, Green Bay, Wisconsin, USA

Ambassador Program Recognizes Early Adopters

Maurits Wolleswinkel, (center) business director open MR, Philips Medical Systems, welcomes representatives from Texas Spine & Joint Hospital to the Ambassador Program; (l. to r.) Nancy Johnson, marketing director; Laura Haggard, radiology director; Tony Wahl, CEO.

Philips has launched a new Ambassador Program that recognizes the early adopters of the Panorama 1.0T. The initiative is designed to benefit both existing and future Panorama 1.0T users. "The program was created to help our first users take full advantage of the system's clinical and business capabilities, while providing us with direct feedback on their experiences." says Maurits Wolleswinkel, Philips Open MRI business director.

In both North America and Europe, Ambassadors benefit from a single Philips contact who monitors the program and keeps the communication channels flowing. "It is the early adopters of any new technology that help pave the way for future users," explains Linda Hull, Ambassador liaison for North America. "This program supports those doing the pioneering with training, product upgrades and customized marketing support. In return, we ask the Ambassadors to actively participate in the Philips NetForum user community, share ExamCards, discuss successful marketing practices and talk with others about their experience with the Panorama 1.0T."

The Panorama 1.0T Ambassador Program has been offered to the first 50 customers worldwide.

Panorama Ambassador

PANORAMA 1.0T News

Panorama 1.0T thrives in high-field market

In the fourth quarter of this year, Philips welcomed its 75th Panorama 1.0T customer. Combining patient convenience with high-field image quality, the Panorama 1.0T is continuing to develop a strong client base.

New marketing materials

A new brochure, "Taking orthopedic imaging to a new level," highlights the benefits of using Panorama 1.0T for orthopedic imaging. Its larger aperture offers unlimited joint positioning, enabling MR imaging hitherto impossible on high-field systems. It provides new opportunities for sports medicine as well as the ability to scan larger patients. The system's lateral tabletop enables all anatomy to be scanned at the isocenter, including the shoulder, spine, wrist and elbow.

In addition, a new white paper, "Linking openness and high-field performance," explains how Solenoid Technology (ST) coils and high field strength enable the Panorama 1.0T to generate images with quality comparable to cylindrical 1.5T systems. It examines SNR properties of ST coils and shows independent results obtained on the Panorama 1.0T. The vertical field allows ST coils to encircle the anatomy, producing high SNR and excellent homogeneity for ideal signal reception. In contrast to cylindrical systems that use surface coils that are tightly strapped to patients, the ST coils of the Panorama 1.0T are positioned over the patient.

New ST Multi-purpose L coil

The new ST Multi-purpose L coil will be introduced for Panorama 1.0T systems in November. This ST coil will be the largest in the range of the ST Multi-purpose Flex coils. It enables a wide variety of applications but is particularly useful for imaging the shoulder or knee of larger patients.

It also allows c-spine imaging or flexion/antiflexion studies of the L-Spine. Due to its larger diameter, the FH coverage of the ST Multi-purpose Flex L is greater than that of the M-size version.

The ST Multi-purpose L coil has a split-able design allowing easy, comfortable positioning of the coil around a selected anatomy and is optimized for high SNR. The coil package includes foam insert pads for comfortable patient positioning.

Philips collaborates with Norwegian University on research for R/T planning using Panorama 1.0T

The oncology department of the Ullevål University Hospital in Oslo, Norway, has purchased the Panorama 1.0T to conduct clinical trials to validate the potential benefits of using MR for R/T treatment planning. The wide-open gantry of the Panorama 1.0T enables the ability to position and scan patients in exactly the same position as on the treatment table of a linear accelerator, including all immobilization devices. Images acquired in treatment position, together with the built-in geometric distortion correction algorithm are designed to deliver corrected images for treatment planning. MR excels at soft tissue imaging, and treatment planning should be based on images that best show the tumor.

Ullevål University Hospital and Philips will work together to develop this exciting new application for MR. The system is planned for installation in October.

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