

Healthcare Sector Imaging & IT Division

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Innovation for Women's Health – the new MRI breast scanner from Siemens

Magnetom Espree-Pink makes examinations more comfortable for physicians and patients

Siemens Healthcare recently presented its first MRI breast scanner, Magnetom Espree-Pink. This 1.5-Tesla system is the latest innovation in magnetic resonance imaging (MRI) from Siemens, featuring a dedicated solution for breast examinations. Particularly for obese and claustrophobic patients, the large, 70-centimeter magnet bore makes examinations more comfortable than with previous systems, or, in some cases, it makes them possible for the first time ever. The flexible design of the "Sentinelle Vanguard for Siemens" breast coil also optimizes the clinical workflow. Comprehensive applications, such as syngo Grace or syngo Views, additionally set a new standard in Women's Health.

At almost 30 percent, breast cancer is the most common form of cancer occurring among women in Germany, as well as throughout Europe. Approximately 57,000 women annually develop breast cancer in Germany; 17,500 women per year die from breast cancer¹. The American National Cancer Institute estimates that a woman has a 1-in-8 chance of developing breast cancer during her lifetime. The American Cancer Society's new screening guidelines will impact up to 1.4 million high-risk women by recommending they receive annual MRI screenings.² A high percentage of these women will benefit from breast MRI.

Siemens developed the Magnetom Espree-Pink specifically for breast scans and to make examinations more comfortable for patients due to its compact, open design. With a diameter of 70 centimeters, the magnet bore is 10 centimeters wider than most conventional systems. Furthermore, with 125 centimeters, the Magnetom Espree-Pink is the shortest system available on the market. Patients can be positioned either feet-first or head-first, according to requirements. The

¹ Federal Ministry for Health "Mammography screening in Germany – experiences and perspectives", ddb-forum Berlin, April 2008

² Global Cancer Facts and Figures 2007

design of the Magnetom Espree-Pink is an enormous advantage for patients who feel confined by the spatial constrictions of previous MRI systems. Moreover, the scanner also offers sufficient space for adipose patients. "Patients are always nervous during breast MRI examinations and biopsies. The biggest advantage in using Magnetom Espree and the Sentinelle system is the wide open access," said Jae K. Kim, MD, PhD, Radiology Limited, Tuscon, Arizona.

The flexible "Sentinelle Vanguard for Siemens" coil solution makes both imaging and biopsies possible using only a single coil. Depending on requirements, only the lateral inserts of the coil are replaced. The frame itself remains on the table and does not have to be repositioned. In addition, due to its variable coil geometry (VCG), the coil can be optimally adapted to the different breast sizes of various patients. Excellent image quality is attained through an improved signal-to-noise ratio and with the help of eight RF channels.

"One important component of the new system is the 'Sentinelle Vanguard for Siemens' breast coil, which can be used flexibly to optimize workflows. The customer benefits from excellent image quality, optimized biopsy access with improved accuracy, and short examination times, which enable a higher patient throughput," said Walter Märzendorfer, CEO of Magnetic Resonance Imaging at Siemens Healthcare.

The new system additionally offers a comprehensive range of standard and advanced applications for breast imaging. These include, among others, the Breast Suite with Syngo Views for routine examination requirements, which can be used to obtain a three-dimensional representation of the breast with a high spatial and high temporal resolution in the sub-millimeter range, for instance. Syngo Grace is an application package for quantitative MR breast spectroscopy. This software can display the biomarker choline, thus providing valuable information on the biochemical composition of breast lesions. Syngo Blade is an application that ensures motion-free images, even when the patient moves during the examination.

The workstation of the Magnetom Espree-Pink is equipped with the new syngo BreVis and syngo BreVis Biopsy software applications for planning and running the individual work steps during the image acquisition and biopsy processes. For example, syngo BreVis enables clinicians to prepare reports, calculate the size of a lesion, or compare MRI results with ultrasound or X-ray mammography images. The syngo BreVis Biopsy software application supports the physician in performing biopsies accurately and quickly using automatic calculations and pre-settings.

The system is equipped with 18 channels, which ensures its investment security. The breast scanner can be upgraded to a Magnetom Espree with all imaging possibilities for any anatomical region, if required.

For press photos of the Magnetom Espree Pink, go to:

<http://www.siemens.com/med-bilder/Magnetom-Espree-Pink>

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