
RSNA 2013: Innovative GE Healthcare Technology Advances Cancer Care



In their sustained commitment to accelerating cancer innovation and assembling tools to fight the disease, GE Healthcare, a unit of General Electric Company, showcased the company's broad portfolio of advanced cancer treatment solutions at the 2013 Radiological Society of North America annual meeting. GE's technological innovations include Positron Emission Tomography (PET), Molecular Breast Imaging (MBI) and Automated Whole Breast Ultrasound System (ABUS) diagnostic imaging procedures, providing clinicians with enhanced tools to improve cancer detection and therapy monitoring. These breakthrough offerings are in the spirit of GE Healthcare's \$1 billion commitment to fight cancer.

Q.Clear^ delivers both PET quantitation and image quality

Q.Clear, which provides up to two times improvement in both PET quantitative accuracy (SUVmean) and image quality (signal-to-noise ratio) will be a reliable tool allowing clinicians to promptly and confidently evaluate a patient's response to cancer treatment.

Over the past ten years PET image reconstruction technology has been designed to provide better image quality, reduced acquisition time and lower injected dose, with the current PET iterative reconstruction technologies, such as Time of Flight (TOF) and OSEM, forcing a compromise between quantitation and image quality. GE Healthcare's new 510(k)-pending Q.Clear technology on display at RSNA, shows the advantage of full convergence PET imaging without such compromise.

Steve Gray, president and CEO of GE Healthcare's Molecular Imaging and CT business explained the known fact that cancer patients do not always respond to their initial course of treatment, and pointed out that Q.Clear gave clinicians a more precise, faster and reliable evaluation tool to confirm that a change in treatment was needed, saving patients unnecessary procedures and a significant amount of money.

Clinicians will not only benefit from the ability to detect the smallest lesions, but also the ability to determine earlier whether the metabolic activity is being mitigated under current treatment. Q.Clear aims to provide better quantitation accuracy for truly personalized medicine. Coupled with GE Healthcare's Q.Suite, which introduced the importance of eliminating variability such as respiratory motion, Q.Clear will enable clinicians to assess treatment response more accurately than ever before.

The Breast Care Continuum

A designated "Breast Connect" section of the booth enabled GE Healthcare to showcase its wide range of breast cancer care offerings, covering the entire care continuum from screening to monitoring. They include the Discovery NM750b and the Invenia ABUS system.

Discovery NM750b enables better cancer detection in dense breast tissue

The Discovery NM750b allows high-sensitivity imaging to detect breast cancer in patients considered to be higher-risk due to dense breast tissue, or for patients who are unable to undergo standard Magnetic Resonance (MR) imaging exams or need another imaging exam. GE Healthcare's molecular breast imaging (MBI) technology, produces images similar to those obtained through standard mammography, but do not produce X-ray radiation and require approximately 30 percent less tissue compression. Discovery NM750b also enables clinicians to effectively monitor and track treatment to detect signs of disease reoccurrence.

New Invenia ABUS automated breast ultrasound (ABUS) enhances cancer detection

GE Healthcare's Invenia ABUS features new automated compression tools for improved workflow and ergonomics, providing physicians with a new way to look at dense breast tissue and increasing breast cancer detection by up to 35.7 percent over mammography alone. The new Invenia ABUS features advanced automation technology and is designed for reproducibility, ease of use and both patient and operator comfort. With new tools like Compression Assist and Reverse Curve*, healthcare providers can quickly and comfortably capture whole breast, 3D volumes of clinical images in less time compared to previous versions of the technology.

GE Healthcare is the sole manufacturer with an FDA-approved ultrasound system for breast cancer screening purposes.

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