

16 February 2009

World's first echo in a heartbeat revolutionises echocardiography in Australia

The Siemens ACUSON SC2000 is the world's first cardiac ultrasound system that can acquire instantaneous, three dimensional (3D) images of the heart in a single heartbeat. This latest, world-leading healthcare innovation will be unveiled by Dr. Mani Vannan, Professor of Clinical Internal Medicine at The Ohio State University, in Australia from 2 to 6 March.

Mr. Richard Guest, Siemens Vice President of Healthcare, explained some of the benefits brought about by this ground-breaking technology. "Within the space of a single heartbeat, we can now see the heart in more detail than ever before. The ACUSON SC2000 brings unparalleled capabilities in information rate processing that allow us to acquire full volume, high resolution, 3D images of the entire heart, with 90 degree pyramids.

"This breakthrough in technology means that patients with irregular heart beats, such as people suffering from atrial fibrillation, can now benefit from this advanced imaging method. Before now, 3D ultrasound imaging of the entire heart in these patients was difficult due to limitations in obtaining accurate diagnostic information. With the new ACUSON SC2000 this is no longer an issue.

"Also patients with coronary artery disease, the most common heart disease in Australia, will benefit from the information that can now be obtained with this revolutionary non-invasive imaging technique. Not only will this provide more diagnostic data but a significant improvement in the accuracy of the results, leading to the delivery of better patient care.

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“The ACUSON SC2000 delivers vastly more information than today’s conventional systems by combining Siemens unique Coherent Volume Formation technology with the system’s high-volume acquisition rate. In a technological move away from the serial line-by-line acquisition to using simultaneous, multiple beams, the ACUSON SC2000 is able to achieve more accurate visual analysis of the heart than existing ultrasound systems, and in the shortest possible time.

“Capturing the ultrasound so quickly and efficiently also leads to an increase in patient throughput and improves productivity for the hospital or private practice.”

Mr. Guest said the ACUSON SC2000 would also help prevent work-related stress injuries through the strict ergonomic standards that had been applied in the design phase.

“Besides using the latest technological advancements and applications to improve efficiency and workflow with the ACUSON SC2000, Siemens has also addressed the ergonomics of the system to meet and exceed today’s recommended ergonomic guidelines, and to accommodate the varied work environment of sonographers.”

The ACUSON SC2000 represents the greatest advancement in ultrasound technology since the introduction of 2D imaging in the late '70s. It comes 55 years after echocardiography pioneers Inge Edler and Hellmuth Hertz acquired the world’s first cardiac ultrasound recording using Siemens technology in 1953.

Further advancements in the ACUSON SC2000 include the proprietary 4Z1c transducer with patented active cooling technology, enabling full output power within regulatory limits and resulting in improved penetration, reduced noise and high-volume acquisition rates compared to conventional 3D transducers.

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The 4Z1c is a single transducer solution for adult echo applications that provides all the modes needed: volume imaging, 2D, M-mode, color Doppler, and spectral Doppler. This breakthrough technology showcases Siemens acoustic mastery and delivers on the long-awaited promise of true volume imaging for every patient.

The ACUSON SC2000 system also supports advanced cardiovascular applications. The knowledge-based workflow software uses learned pattern recognition technology and an expert database of real clinical cases. This enables the system to recognise anatomical patterns and landmarks, as well as to perform automatic measurements, streamlining clinical workflow.

The system automatically derives reference plane images from the full-volume cardiac capture dataset and offers automated full-volume contouring for fast qualitative and quantitative analysis. Customisable, programmable, and protocol-driven workflow sequences deliver repeatability for better outcomes: greater efficiency, accuracy, consistency, and care – from data acquisition to diagnosis. To further enhance efficiency, the offline workstation enables reporting, as well as complete review and processing of the acquired volumes.

Media interviews

Dr. Mani Vannan is available for a limited number of media interviews in each state. To schedule an interview and to RSVP to attend a launch please contact Bianca Nelson on + 61 (03) 9721 7590 / + 61 (0) 432 247 736.

Photographs

Photographs are available from the Internet at:

www.siemens.com/med-pictures/AcusonSC2000

Caption: The Acuson SC2000 volume imaging ultrasound system is the first system in the world to acquire non-stitched real-time full-volume 3D images of the heart in one single heart cycle.

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Launch details

Brisbane

2 March

Lecture Theatre / Watermall
Queensland Art Gallery

Stanley Place
South Brisbane
(Parking available on-site)

Sydney

4 March

Utzon Room (adjacent to box
office)

Sydney Opera House
Bennelong Point
Sydney
(Parking available on-site)

Melbourne

6 March

Mind and Body Exhibition
Melbourne Museum
Nicholson Street
Carlton
(Parking available on-site)

Agenda

6:15pm Registration and refreshments

7:00pm 'Technical insights into R&D challenges,' John Davidson, Siemens, United States

7:25pm 'Benefits of true volume and clinical case studies,' Dr Mani Vannan, The Ohio State University

8:10pm Questions and answers

8:20pm Live scanning demonstration

9:00pm Close

By invitation only. Media please RSVP by reply email by 25 February 2009.

About Siemens in Australia

Siemens commenced operations in Australia in 1872 and is now one of the country's most reliable and trusted brands. With well-established businesses in both Australia and New Zealand, Siemens is a diversified technology based solutions provider specialising in the areas of water, energy, environment, healthcare, productivity, mobility, safety and security. At the end of fiscal 2008 (September 2008), Siemens achieved AUD 1.875 billion in sales with 3,336 employees. Siemens in Australia and New Zealand is part of the Siemens global network of innovation which operates in 190 countries throughout the world.

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