SIEMENS Healthineers

Case Study

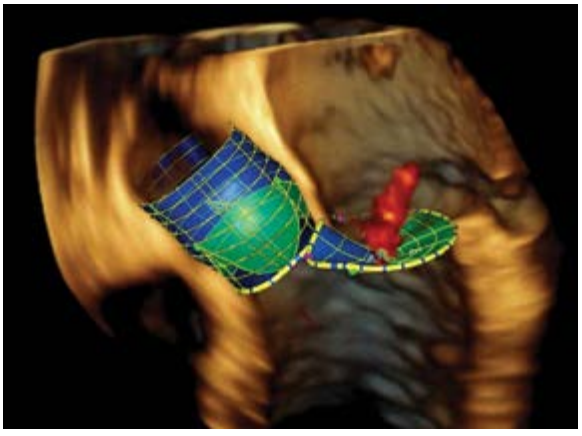
Improving Cardiac Care with 3D Transesophageal Echocardiography

Kansas Heart Hospital

usa.siemens.com/ultrasound

Kansas Heart Hospital is a 54-bed hospital serving Wichita, Kansas and surrounding communities.

Precision at the Speed of Life at Kansas Heart Hospital



"The resulting images and detail of the 3D TEE probe from Siemens Healthineers are far superior to competitive products."

Deb Sikes
RDCS, RDMS, RVT
Manager of Non-Invasive Department
Kansas Heart Hospital

Putting the Patient First

When patients are sent to Kansas Heart Hospital (KHH) for cardiac care, they benefit from recent advances in echocardiography, which enable clinicians to evaluate cardiac structure and function in 3D using transesophageal or TEE probes.

"3D is now the gold standard of care," said Deb Sikes, RDCS, RDMS, RVT, manager of the Non-Invasive Department at KHH. "It is a powerful diagnostic tool and provides a new window into heart evaluation."

"We had success with 2D TEE, but wanted to raise the bar to 3D," said Sikes. "The resulting images and detail of the 3D TEE probe from Siemens Healthineers are far superior to competitive products. Our cardiologists, anesthesiologists, and surgeons are so impressed with the images, capabilities, and overall information we can now see."

Dr. Ernest Hoeckel, Jr., a board-certified anesthesiologist at KHH, agrees with Sikes, calling the 3D probe exceptional.

"It shortens treatment time for exams," said Dr. Hoeckel. "In addition, the 3D technology enables us to definitively answer questions that could only be surmised under 2D."

Real-time Guidance for Valve Therapies and Arrythmia

"What's especially great about their 3D probe is that we can see live volume color flow while working on patients. We don't have to go to the workstation to do calculations and can make on-the-spot repairs," said Sikes.

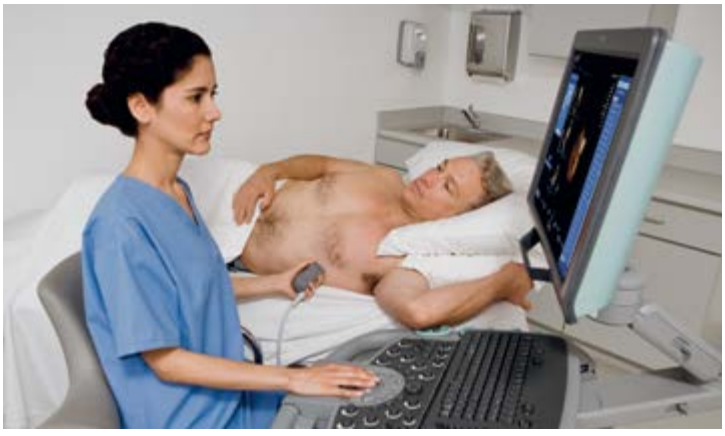
Dr. Hoeckel added, "The real-time 3D capabilities are remarkable. For this reason, I believe it is a superior product."

In fact, Dr. Hoeckel recently treated a patient with a history of atrial fibrillation. "We were going to do an ablation on the patient and tie off their atrial appendage. With 2D, I could only suspect a clot in the left atrial appendage. Utilizing the 3D probe, I could absolutely be certain that there was a clot," said Dr. Hoeckel. "It changed our course of action and likely improved the outcome for the patient."

Unlike 2D, which relies on standard imaging planes, 3D TEE uses volume datasets. Normal or pathologic cardiac structures can be viewed from multiple perspectives.

"The training and application specialists from Siemens Healthineers were incredibly helpful."

Deb Sikes
RDCS, RDMS, RVT
Manager of Non-Invasive Department
Kansas Heart Hospital



"Utilizing the 3D probe, I could absolutely be certain that there was a clot. It changed our course of action and likely improved the outcome for the patient."

Ernest Hoeckel, Jr., MD
Board-certified Anesthesiologist
Kansas Heart Hospital

Drawing Straws to Assist in Procedures

To encourage adoption, KHH leveraged the robust training and educational offerings from Siemens Healthineers. "The training and application specialists from Siemens Healthineers were incredibly helpful. There's a bit of a learning curve as none of our staff had previous 3D training, but now our sonographers absolutely love it," said Sikes. "They're so excited that we have to draw straws to see who gets to assist in procedures."

Dr. Hoeckel added that the probe is "exceptionally easy to use" and that he's using 3D "for every possible exam."

"The 3D TEE has been a huge success at Kansas Heart; it's amazing what we can accomplish in real-time," said Sikes. "It increases physician and staff satisfaction, and, more importantly, it also improves patient care—which is always our ultimate goal."

Kansas Heart Hospital in Brief

Annual Procedural Volume

- Over 2,500 catheterizations
- An average of 375 open heart cases
- 175 valve surgeries and primary lung surgeries
- Endovascular stenting for abdominal aortic aneurysms
- Carotid artery surgery
- Carotid artery stenting
- Peripheral vascular surgery
- Peripheral vascular stent procedures

Siemens Cardiac Solution

- Four ACUSON SC2000 Ultrasound Systems with three 3D TEE probes
- Two ACUSON Sequoia™ Ultrasound Systems
- Two AXIOM Artis systems for Interventional Cardiology
- AXIOM Artis biplane system for Electrophysiology
- AXIOM Sensis for Hemodynamics
- SOMATOM® Sensation 64 CT Scanner
- SIREMOBIL Compact L mobile C-arm
- *syngo*® Dynamics for Cardiovascular PACS

The statements by the Siemens' customer described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

On account of certain regional limitations of sales rights and service availability, we cannot guarantee that all products included in this brochure are available through the Siemens sales organization worldwide. Availability and packaging may vary by country and is subject to change without prior notice. Some/All of the features and products described herein may not be available in the United States.

The information in this document contains general technical descriptions of specifications and options as well as standard and optional features, which do not always have to be present in individual cases.

Siemens reserves the right to modify the design, packaging, specifications, and options described herein without prior notice. Please contact your local Siemens sales representative for the most current information.

Note: Any technical data contained in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced.

Local Contact Information
Siemens Medical Solutions USA, Inc.
40 Liberty Boulevard
Malvern, PA 19355-9998
USA
Phone: +1-888-826-9702
usa.siemens.com/healthcare

Siemens Healthineers Headquarters
Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
siemens.com/healthcare

Legal Manufacturer
Siemens Medical Solutions USA, Inc.
Ultrasound
685 East Middlefield Road
Mountain View, CA 94043
USA

Order No. A91USD-16800-P1-4A00 | Printed in USA 07-2016 |

siemens.com/healthcare