

CAE ICCU E-Learning CAE VIMEDIX Ultrasound Simulator

Master Ultrasonography of the Thoracic, Abdominal and Pelvic Cavities



An Engaging Learning Solution for Ultrasound

Hands-on Simulation, Multimedia Content, Group Seminars and a Collaborative Learning Community

The Stethoscope of the Future

Today's point-of-care ultrasound devices are more advanced, more portable and more accessible to physicians and healthcare professionals around the world. A growing number of medical specialties have adopted ultrasound examinations into their standards of care. The value of point-of-care or bedside ultrasound is so widely recognized that it has been termed the stethoscope of the future.

■ The European Society of Intensive Care Medicine and 11 additional critical care societies worldwide have agreed that critical care ultrasound should be mandatory in the curriculum of ICU physicians

■ In 2010, the American College of Emergency Physicians and American Society of Echocardiography released a consensus statement recommending the Focused Cardiac Ultrasound (FOCUS) exam in emergency care

■ Graduates of ACGME Emergency Medicine Training programs must now demonstrate competency in bedside ultrasound

■ National and international guidelines recommend ultrasound for central venous access procedures



VIMEDIX Ultrasound Simulator

The Need for Accelerated Mastery

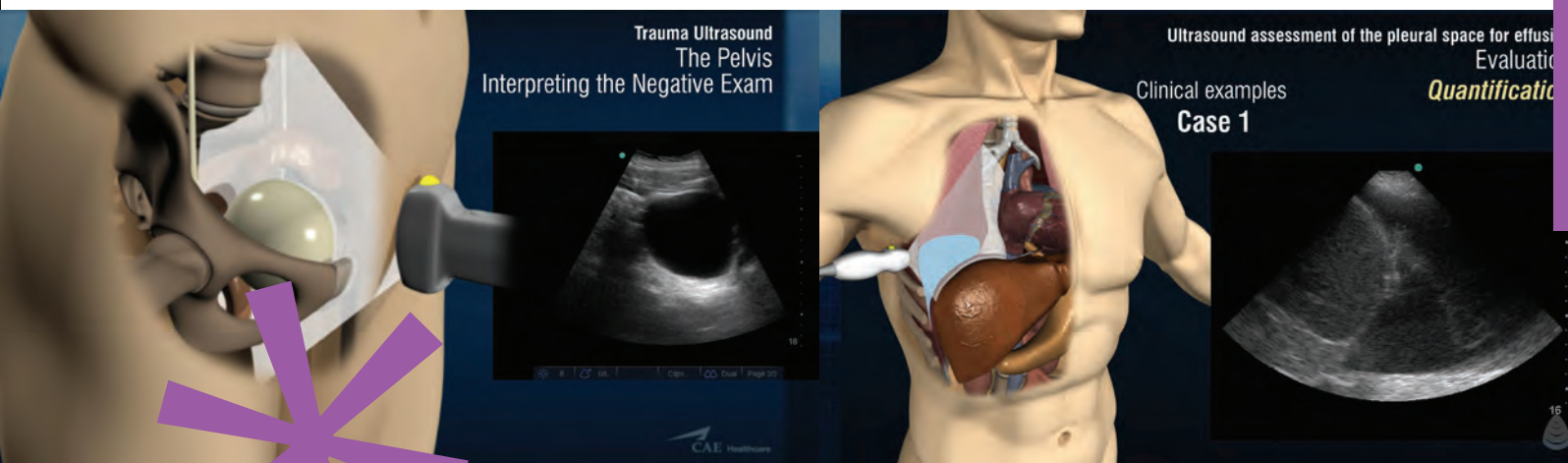
Point-of-care ultrasound can improve patient management and outcomes, but its effectiveness is highly dependent on the expertise of the practitioner performing the exam. **With CAE Healthcare's imaging simulation tools, learners engage in hours of risk-free, clinical practice before they ever assess real patients.**



The CAE Healthcare Solution—ICCU E-Learning and the VIMEDIX Ultrasound Simulator

CAE Healthcare has developed the first blended training solution for accelerated mastery of ultrasonography of the thoracic, abdominal and pelvic cavities. ICCU E-Learning offers more than 30 hours of didactic content on ultrasound assessment of the heart, lungs, and central and peripheral vessels. The VIMEDIX ultrasound simulator accelerates learning with a realistic mannequin and a split screen monitor featuring both ultrasound and 3D anatomical images. The addition of hands-on seminars, a FOCUS reference guide and an online, collaborative community round out the solution with opportunities for continuing guidance and skills development.

ICCU E-Learning



LEARN—CAE ICCU e-learning comprises more than 30 hours of multimedia, interactive content and 1500 questions to help learners develop expertise.

PRACTICE—The CAE VIMEDIX ultrasound simulator offers a realistic mannequin, several imaging probes, a split-screen with ultrasound, 3D anatomical images and more than 50 pathologies.

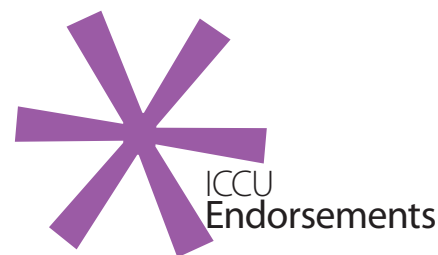
PROGRESS—In our group seminars, experienced practitioners conduct hands-on, clinical training with the VIMEDIX simulator, task trainers and volunteer patients. CME credits available.

RETAIN—The affordable FOCUS Pocket Guide can be downloaded for the iPhone or iPad. It is also available in booklet form.

COLLABORATE—The CAE Learning Center is a new, free community portal featuring shared cases, ultrasound literature reviews and the opportunity to become a contributor.

CAE ICCU E-Learning

Multimedia Content Developed by Experts



CAE ICCU is endorsed by the American College of Chest Physicians (ACCP), the Canadian Critical Care Society (CCCS), the Critical Care Education Network, the Quebec Pulmonologist Association, and the University of Montreal. CAE ICCU is recognized for CME credits by the American Medical Association (AMA) and by the Royal College of Physicians and Surgeons of Canada (RCSPC).

ICCU content includes:

- Focused Cardiac Ultrasound Study
- Assessment, diagnosis and intervention in central and peripheral vessels
- Assessment of the lung and pleural space
- Ultrasound-guided procedures for peripheral vascular access
- Focused Assessment with Sonography for Trauma (FAST) exam (Summer 2012)
- Transesophageal (TEE) exam (Summer 2012)
- 1500+ multimedia testing questions
- Accessibility on any mobile platform

CAE Learning Center—ICCU's free online, collaborative community

Interactive web-based learning portal dedicated to providing the most-up-to-date information on bedside ultrasound

Features include clinical case studies, Journal Club, clips and images from an atlas of cases, blogs and much more

Society-Endorsed E-Learning for Bedside Ultrasound

CAE ICCU e-learning covers components of the TEE, FAST and FOCUS exams, assessment of the central and peripheral vessels and assessment of the pleural space and lung. The curriculum is based on guidelines from the International Consensus Statement on Training Standards for Critical Care Ultrasonography, which was organized by the European Society of Intensive Care Medicine.

An Interactive Learning Management System

CAE ICCU offers more than 30 hours of online, multimedia, didactic content, available by subscription to individuals or institutions. ICCU is accessible on any mobile platform. The institutional license format allows tailored learning solutions and immediate, online performance assessment.



Additional Imaging Learning Solutions

Comprehensive on-site Ultrasound Training Seminars

Clinical programs composed primarily of hands-on sessions

Includes scanning of various acute care cardiac pathologies using the CAE VIMEDIX high-fidelity ultrasound simulators

Conducted by experienced critical care physicians and certified sonographers

Seminars and e-learning pre-work are recognized for CME credits



CAE Healthcare

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Learning Center Home Clinical Cases Atlas of Cases Assessment of Cardiac Function Journal Club Submit Content

Clinical Case Category: Cardiac

Case 1: 83 y.o Female Complaining of Chest Pain

Submitted by Diana Cumbreano on 03/11/2011

Share 1 5 ratings

Search here:

Most Viewed Cases:

Case 1: 83 y.o Female Complaining of Chest Pain

Submitted by Diana Cumbreano on 03/11/2011

An 83 y.o female complaining of chest pain for the last week is now feeling...

Case 2: A 63 y.o Asian male complaining of chest pain

Submitted by Diana Cumbreano on 03/11/2011

A 63 y.o Asian male complaining of chest pain for the last week is now feeling...

The Learning Center Benefits

1. Keep your skills in image interpretation up-to date
2. Share your cases with a worldwide ultrasound community
3. Sharpen your skills in interpretation of left ventricular function
4. Access the latest reviews of the ultrasound literature
5. Review clinical cases and test yourself as you go through them
6. Navigate through our atlas of cases
7. Become a contributor by submitting clips, articles, comments...

Question 1: Detailed Answer(s)

Percentage of the case completed 33%

Gen THS HSC 2008Dec14 12:19

RV LV

Pericardial blood clot

Media Details

Parasternal long-axis view. Note the severe biventricular dysfunction and the posterior LV/pericardial clot

Movie_06_3A 10.mpg Movie_07_0H 09.mpg Movie_08_0H 10.mpg



FOCUS Pocket Guide application for iPhone and iPad

An essential reference tool for focused bedside echocardiography

Summarizes key concepts of the Focused Cardiac Ultrasound exam (FOCUS) with 3D animations of echocardiographic views

Features video, animation, a cardiac output calculator and special sections on assessment of ventricular function, pericardial fluid, fluid status, and more

Addressed to medical students, residents, nurse practitioners

Available in English, French, Japanese, Portuguese, Spanish, German and Russian

VIMEDIX Ultrasound Simulator

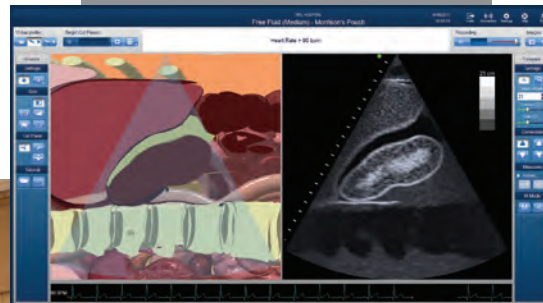
Realistic Echo Environment for Real-Time Learning



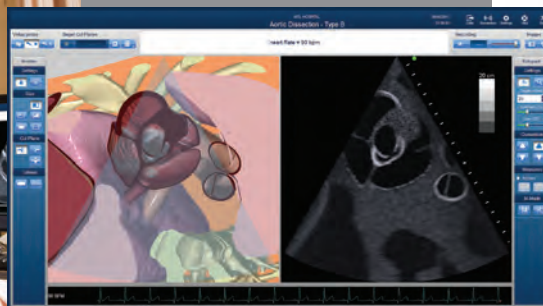
CAE VIMEDIX is the only ultrasound simulator to offer the TEE, TTE and abdominal-pelvic exams on one platform.



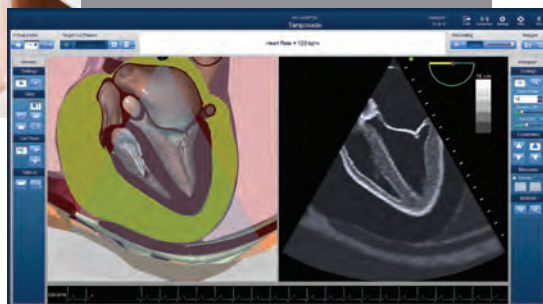
FAST exam with Free Fluid



TEE exam with Aortic Dissection



Cardiac exam with Tamponade



VIMEDIX in Action Testimonial

Dr. Georges Desjardins, anesthesiologist and clinical professor at the University of Utah School of Medicine, saw positive results after training a new anesthesiologist on the CAE VIMEDIX ultrasound simulator. "I spent about 20 hours with him with the simulator and about 10 hours on human patients doing TEEs. He recently saved his first life with echo."

A 32-year-old female patient was delivered to the emergency room after a motor vehicle accident. After a negative FAST exam, she was sent for additional evaluation. "She became severely hypotensive and unresponsive," said Dr. Desjardins. "My colleague was called to help the resuscitation and secure the airway. He placed the TEE probe emergently and diagnosed cardiac tamponade in about 30 seconds. The surgical team opened the pericardium to repair an injury to the right atrium. This training has real impact. This is how it can change people's lives!"

George Desjardins, MD, FRCPC, FASE

Associate Clinical Professor in Anesthesiology and Internal Medicine (Cardiology), University of Utah School of Medicine

Clinical Features

The VIMEDIX mannequin has realistic tactile features, including a depressible abdomen, palpable ribs and sternum and depressible interspaces

Split screen right side display shows an ultrasound view with depth of field, contrast, gain, m-mode capability and color Doppler

Split screen left side display shows a 3D anatomical depiction of the organ being scanned, its physiology, motion, and 360-degree view. The images of surrounding anatomical structures (liver, lungs, sternum artifacts) may be toggled on and off depending on the learner's level of comfort.

The anatomical image can show the ultrasound beam plane to help the learner generate an accurate ultrasound image.

Standard Equipment

VIMEDIX mannequin

Computer with display, including keyboard, mouse, cable and monitor. Monitor shows split screen display with ultrasound view and corresponding 3D anatomical image

Mock TTE probe

Standard software:

- One normal heart
- Three pathologies
- Transthoracic Echocardiography Module (TTE)

Add-on systems:

- Transesophageal Echocardiography Module (TEE)
- Abdominal-Pelvic Module (includes FAST)

A Library of Pathologies

VIMEDIX offers an extensive library of more than 40 cardiac and 10 abdominal and pleural pathologies, which can be purchased and downloaded in packages of 10 pathologies. The online library is expanding, with more cases being added regularly. Find a complete list of pathologies at caehealthcare.com

CAE Healthcare offers advanced patient, imaging, surgical and learning simulation-based solutions to improve patient safety and outcomes. Our leading-edge products and learning applications provide risk-free practice and professional development to physicians, nurses, EMS responders, military medics, students and allied health professionals around the world.



caehealthcare.com

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