SIMULATION NEWS - FALL 2012

News of the International Healthcare Simulation Community



The German Bundeswehr Special Operations Training Center in Pfullendorf, Germany recently hosted a Tactical Combat Casualty Care (TCCC) symposium with training workshops conducted with the Caesar trauma simulator.

The Museum of Science and Industry Chicago offers students a chance to diagnose and treat the wireless patient simulator iStan in its ongoing You! exhibit.

Leiden University Medical Center in the Netherlands is partnering with a local ambulance service in its newly expanded Center for Education and Simulation.







NEW TRAINING CENTER IN MADEIRA The new Madeira Clinical Simulation Center in Portugal aims to become a distinguished international training center.

MOUNT SINAI HELPS CENTER Dr. Adam Levine leads high-stakes simulations at the Mount Sinai School of Medicine Human Emulation, Education and Evaluation Lab for Patient Safety (HELPS) Center in New York City.

MULTI-DISCIPLINARY CENTER OPENS IN BOGOTÁ Established to promote patient safety, the Fundación Instituto de Simulación Médica (INSIMED) will offer multi-disciplinary simulation for anesthesiology, laparoscopic, orthopedic and endoscopic surgery, obstetrics-gynecology and emergency medicine.

ANESTHESIA TRAINING IN THE NETHERLANDS The prestigious Leiden University Medical Center expands its simulation center and works to develop national simulation curriculum for anesthesia.

USC'S KECK SCHOOL OF MEDICINE Before 2010, Clinical Professor Catherine Rodziewicz of the USC Keck School of Medicine in California had never operated a human patient simulator. She learned quickly on the job.

On the cover: Dr. Adam Levine leads anesthesia residents through an HPS simulation at the Mount Sinai School of Medicine Human Emulation, Education and Evaluation Lab for Patient Safety (HELPS) Center in New York City.

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CHILEAN NAVY "TRAINS THE TRAINERS" Students from nine countries attend the Armada de Chile's 10th annual Combat Casualty Care (C4) Course.

5 SIMULATING REAL-WORLD MILITARY MISSIONS
Patient simulators were key players in a "Global Medic 2012" joint military exercise at Fort Hunter Liggett, California.

ISTAN SIMULATION IMPROVES CODE BLUE RESPONSE At a small community hospital in Pennsylvania, a dedicated former nurse with one iStan simulator improves code blue team response, and reports on her results.

SIMULATING THE eFAST ULTRASOUND EXAM The WakeMed Center for Innovative Learning presents a preconference course on ultrasound for EMS at the EMS World Expo in New Orleans, USA.

UPCOMING HPSN REGIONAL AND INTERNATIONAL EVENTS HPSN Asia Pacific, HPSN Europe and the CAE Cup.

"We ramp up the emotional content of the simulations even at the junior level," says Dr. Adam Levine, professor of Anesthesiology at the Mount Sinai School of Medicine.





MADEIRA CLINICAL SIMULATION CENTER OPENS WITHIN NÉLIO DE MENDONÇA HOSPITAL

Pictured, Madeira President Dr. Alberto João Jardim and Medical Director Dr. Pedro Ramos lead guests on a tour of the new Madeira Clinical Simulation Center. The center officially opened inside Nélio de Mendonça Hospital in September.



INNOVATIVE HIGH-FIDELITY HEALTHCARE SIMULATION CENTER IN PORTUGAL

In September, Portugal's third simulation lab to integrate high-fidelity simulators opened in Madeira. Situated in the Atlantic Ocean between Europe and Africa, Madeira is a Portuguese Island that has invested greatly in its regional health system. The Madeira Clinical Simulation Center will focus on "train the trainer" activities for trauma and disaster management, emergency medicine, critical care, anesthesia and obstetric and pediatric emergencies.

Dr. Alberto João Jardim, president of the regional government, led the center's official opening ceremony and tour on September 4. The Madeira Clinical Simulation Center aims to become a distinguished national and international training center with a mission to advance patient safety for disaster and trauma victims, deliver medical education in collaboration with Madeira University and improve the performance of professional healthcare teams.

Located within Nélio de Mendonça Hospital, the center has four simulation rooms, two debriefing rooms, and is fully equipped with CAE Healthcare simulators, including an HPS, two iStans, two METIman, a PediaSIM, a BabySIM, a ProMIS surgical simulator and the LearningSpace center management system. The medical director, Dr. Pedro Ramos, is a senior general surgeon and director of the hospital's Emergency Department. MEDSIMLAB, a full-service medical simulation company based in Portugal, will help to implement the training program over the next two years.



Above, Madeira President Dr. Alberto João Jardim gestures toward the Madeiran flag at an opening tour with Dr. Miguel Ferreira, president of the Regional Hospital & Health System, Medical Director Dr. Pedro Ramos and Dr. Francisco Ramos, Madeira Health Regional Secretary.

High Stakes Patient Simulation at Mount Sinai School of Medicine HELPS Center



"I know we are doing things very, very differently," says Dr. Adam Levine, professor of anesthesiology and program director of the HELPS Center. "We've been very prolific with only three or four core faculty and a team of dynamic anesthesiology resident educators."



he confrontational surgeon, the harried nurse and the headstrong resident are not part of most formal simulation scenarios. Yet one or all of them participate in mission-critical simulations at the Mount Sinai School of Medicine HELPS (Human Emulation, Education and Evaluation Lab for Patient Safety) Center in New York City. Dr. Adam Levine, director of the HELPS center, says the beauty of these improvised characters is they can enter the scenario at the most inopportune moment to unnerve the participants, distract with a question or disrupt with a potentially fatal error.

"We ramp up the emotional content of the simulations even at the junior level," said Dr. Levine, who is also a professor of Anesthesiology, Structural and Chemical Biology, and Otolaryngology. "There is no sense being in that simulation if it's not going to be high-stakes and have a lot of impact."

An early adopter of simulation, the Department of Anesthesiology at Mount Sinai School of Medicine purchased the first commercial METI Human Patient Simulator (HPS) in 1994. Levine led initial simulations for anesthesia residents while helping to beta test the HPS. Eighteen years later, he and a core team of anesthesiologists use the HPS for high stakes simulation events for professional retraining, re-certification and remediation as well as resident training and undergraduate education.

A proponent of high-stakes simulation for both education and assessment, Levine admits that the HELPS center model is unique. "I know we are doing things very, very differently," Dr. Levine said. "We're proud of the way we have created our program. We don't use technicians or ancillary teachers. We use MDs to educate all of our students. We've been very prolific with only three or four core faculty and a team of dynamic anesthesiology resident educators."



"In the past few years healthcare simulation has made an exponential transformation from a "Best Secret" to becoming a bona fide "Best Practice." Few involved in its past could have imagined the speed, extent, and creative ways in which simulation has been applied. It's apparent that our only limitations are our imaginations."

An excerpt from the final chapter of The Comprehensive Textbook of Healthcare Simulation by Drs. Adam Levine, Samuel DeMaria, Jr., Andrew Schwartz and Alan Sim, to be published in early 2013.

The center's two simulation rooms are frequently booked solid daily, delivering thousands of simulation experiences a year and generating a self-sustaining revenue stream for the program. In addition to offering regular American Society of Anesthesiologists (ASA)-endorsed Maintenance of Certification in Anesthesia (MOCA) courses, the center conducts competency assessment for medical licensing bodies and retraining for anesthesiologists who have been on clinical hiatus.





Dr. Adam Levine leads anesthesia residents through simulation with the CAE Healthcare HPS at the Mount Sinai School of Medicine Human Emulation, Education and Evaluation Lab for Patient Safety (HELPS) Center in New York City.

"It's much more challenging to evaluate and document judgment, professionalism and interpersonal skills," Dr. Levine said. "But one can readily see these skills deteriorate in a simulated environment when the scenario takes a challenging and stressful turn."



The center has also become a distinguished site for remediating professionals after poor outcomes and evaluating teamwork and clinical teaching skills.

"It's much more challenging to evaluate and document judgment, professionalism and interpersonal skills," Dr. Levine said. "But one can readily see these skills deteriorate in a simulated environment when the scenario takes a challenging and stressful turn."

With expertise developed through years of resident and faculty training, the HELPS center is poised to see exponential growth in its simulation training for professionals. The HELPS center has previously

trained adult critical care teams from New York Presbyterian Hospital and Memorial Sloan-Kettering Cancer Center (MSKCC), and most recently hosted MSKCC nurse practitioners and critical care fellows for a two-day simulation seminar on crisis management for pediatric patients. The training focused on keeping pediatric intensive care patients in-house to reduce hospital transfers.

Levine would like to see medical associations create simulation-based standards for professional assessment, reentry or retraining.

"It's talked about but not available," Dr. Levine said. "People are aware simulation exists, and licensing and credentialing bodies have heightened awareness of patient safety and the desire to make medicine safer. I would like to see them promote high-stakes education and assessment instead of teaching with checklists and tasks."

Levine and Drs. Samuel DeMaria, Jr., Andrew Schwartz and Alan Sim have co-edited The Comprehensive Textbook of Healthcare Simulation, which will be available in early 2013. The textbook is a 50-chapter reference guide that contains contributions from simulation leaders worldwide who represent more than 20 healthcare disciplines and center management.

"The textbook is a resource for everyone that is already in the game or being challenged to get in the game — educators, technicians, administrators," Dr. Levine said. In the final chapter, Levine, DeMaria, Schwartz and Sim offer their predictions about how simulation will grow over the next century.

"Simulation is here to stay," Dr. Levine says. "It will be embedded in all educational activities from student through post-graduate, and it will be used for education, assessment and maintenance for all healthcare providers. I hope the book will invoke others to get into simulation."

A New Model for Simulation Training Opens in Bogotá, Colombia

n the heart of Bogotá, Colombia, the pioneering Fundación Instituto de Simulación Médica (INSIMED) has established a state-of-art simulation training facility with a mission to promote safety in healthcare. The center, which was built with \$35 million USD in funding from the INSIMED foundation and the Dutch Foundation Aaspartam, is equipped with advanced surgical, imaging and patient simulators within simulated clinical settings.

INSIME



Pictured left to right, the management staff at INSIMED: Administrative Director Dr. Marco Angel, Executive Director Dr. Guillermo Ortiz, Operative Director Arturo Daniel Aceves and Commercial Director Maria del Rosario Suarez.

"We were created to train healthcare professionals and to improve patient safety through simulation or with novel ways of teaching," says Dr. Marco Angel, administrative director. "We want to be a center everyone can rely on in Latin America." The center offered several Advanced Trauma Life Support (ATLS) courses and Maternal Fetal Life Support (MFLS) before its official opening in late September.

INSIMED is affiliated with Hospital Virtual Valdecilla in Santander, Spain and Harvard's Center for Medical Simulation. Five full-time staff operate the center, including Executive Director Dr. Guillermo Ortiz, Administrative Director Dr. Marco Angel, Biomedical Engineer and Operative Director Arturo Daniel Aceves, Commercial Director and Nurse Maria del Rosario Suarez and General Assistant Sandra Sandoval. Eight clinicians representing the fields of laparoscopic surgery, orthopedic surgery, anesthesiology, endoscopic surgery, obstetricsgynecology and emergency medicine serve as faculty. Each faculty member has completed the Harvard Institute for Medical Simulation (IMS) Simulation Instructor Training, and the center is a certified American College of Surgeons Accredited Educational Institute (ASCAEI) training center.

"One of our main concerns is that our practitioners or residents train themselves with patients in their first years," Dr. Angel said. "We want these people to go through 20, 30 or 40 cases on a simulator and face any kind of complication

they might face first on a simulator. Any mistakes they were going to make in a patient can be made on a simulator so they can learn from the mistakes."

With two floors dedicated to hands-on simulation training, the center houses a simulated Intensive Care Unit (ICU) that will have a CAE Healthcare Human Patient Simulator (HPS) in 2013.

Additionally, the center will house an obstetrics room devoted to reducing infant mortality, a surgical floor with CAE Healthcare's EndoVR, LapVR and CathLabVR surgical simulators, and the only da Vinci Surgical System in Latin America dedicated solely to training.

"One whole floor is equipped with 10 laparoscopic surgical towers in an in-vivo surgery lab designed to train all kinds of surgeons with biomodels," Dr. Angel said.

INSIMED is a self-sustaining facility with no revenues from government or grants while offering simulation courses for reasonable fees. "We have training agreements with the main universities in Columbia and the main scientific societies, private companies and the main hospitals," Dr. Angel said.

The center also plans to measure the results of its simulation training. "It's very difficult to run studies that measure patient safety," Dr. Angel said. "Our first study will be a clinically controlled double-blind study on sepsis. We are going to train the intensive care unit residents here at INSIMED and the others won't have training. Then we are going to try to see the differences."

LEIDEN UNIVERSITY EXPANDS





THE CENTER FOR EDUCATION AND SIMULATION IS DEVELOPING STANDARDIZED CURRICULUM WITH SIMULATION FOR ANESTHESIA RESIDENTS

he Center for Education and Simulation at Leiden University Medical Center in The Netherlands moved into an expanded simulation center earlier this year. Founded within the Leiden University Medical Center Department of Anesthesia, the center trains anesthesia residents, nurse anesthetists, recovery nurses and medical specialists in Anesthesiology, Critical Care, Emergency Medicine, OB/GYN, ENT and Trauma. The new simulation center was created through a partnership with local ambulance service RAV Hollands Midden.

"Unique in The Netherlands is the cooperation with our local ambulance service," said Dr. Roald Schaad, senior anesthesiologist and head of simulation. "We share knowledge and resources, and thereby strengthen our cooperation with the emergency department, ICU or OR in a win-win situation."

Leiden University was one of the original institutions to adopt high-fidelity simulation for teaching in the early 1990s. Dr. Vima Chopra, an anesthesiologist who still teaches at the university, helped develop the Leiden Anesthesia Simulator (LAS), which was capable of spontaneous ventilation and physiological response to treatment. The LAS was one of the earliest patient simulators.

Today, Leiden University uses both task trainers and CAE Healthcare Human Patient Simulators (HPS) to create scenarios that help improve patient safety, familiarize professionals with new equipment and reduce or manage errors.

SIMULATION CENTER



"We are involved in creating a nationwide curriculum for anesthesiology residents, a first in the world. Within a couple of years, all anesthesiology residents in The Netherlands will experience the same simulation training."

Michael Schuling, nurse-anesthetist, technician and facilitator at the Center for Education and Simulation at the Leiden University Medical Center with the CAE Healthcare HPS

The center plans to expand its programming within the new simulation space. "We have had contact with OneLegacy, a donate life organization in Los Angeles, and will try to develop the first program in Europe (as far as we know) for simulation in the management of potential organ donors," Dr. Schaad said.

"Furthermore, we are involved in creating a nationwide curriculum for anesthesiology residents, a first in the world. Within a couple of years, all anesthesiology residents in The Netherlands will experience the same simulation training. The next step would be the development of postgraduate assessments."

Making the Leap into Simulation

USC KECK SCHOOL OF MEDICINE PROFESSOR CATHERINE RODZIEWICZ JUMPS IN TO HIGH-FIDELITY SIMULATION TO MEET ACGME MANDATE FOR ANESTHESIA RESIDENTS



Pictured at left, Dr. Catherine Rodziewicz, assistant professor of clinical anesthesiology at the University of Southern California Keck School of Medicine, USA. Above, a simulation with anesthesia residents and the CAE Healthcare HPS at the LAC+USC Medical Center

efore 2010, Assistant Professor of Clinical Anesthesiology Catherine Rodziewicz had never operated a human patient simulator. But Dr. Rodziewicz had to guickly adopt simulation training when the American Council for Graduate Medical Education (ACGME) revised the program requirements for Anesthesiology. New requirements by the ACGME mandate residents to participate in at least one simulated clinical experience a year.

As a result, Dr. Rodziewicz's Department Chair at the University of Southern California Keck School of Medicine asked her to incorporate high fidelity simulation into her teaching.

"These residents are very engaged in wanting to improve quality of healthcare," says Dr. Rodziewicz. "They are a different generation. They want to change medicine."





In June, anesthesia residents honored Dr. Catherine Rodziewicz for creating the new simulation program.

"I jumped at the opportunity," Dr. Rodziewicz says. "The department had a fully equipped mock operating room just adjacent to the main ORs, with an HPS simulator and anesthesia machine, but lacked someone committed to learning how to operate the simulator and run simulations for anesthesia residents."

To get started in simulation, Dr. Rodziewicz attended training at CAE Healthcare's headquarters in Sarasota, Florida, USA and attended the CAE Healthcare HPSN 2011 event in Tampa, Florida. By May 2011, she conducted her first one-day pilot workshops for the residents at the LAC+USC Medical Center.

To further expand her knowledge, USC sent Dr. Rodziewicz to the Center for Medical Simulation in Cambridge, Massachussetts, to learn about debriefing. "That changed my life, because I learned the value of becoming an educator using simulation as a tool," Dr. Rodziewicz said.

She also began to work with the new Müse® software for the HPS simulator and helped develop new Simulated Clinical Experiences (SCEs) for anesthesia. "The Müse SCEs take much of the work out of starting up a simulation program and give instructors the capacity to create more stable clinical experiences," she added.

During the 2011-12 school year, Dr. Rodziewicz ran full-day simulation workshops for 54 anesthesia residents, and covered acute myocardial infarction, anaphylaxis, malignant hyperthermia and local anesthesia toxicity.

At the June 2012 graduation banquet, Dr. Rodziewicz's residents surprised her with an award thanking her for incorporating high fidelity simulation into their training.

This past July, she conducted her first summer orientation with the HPS simulator for the new residents, and learned just how far she had come in teaching with simulation in less than two years.

"We covered basic inductions, airway management, team building and common anesthesia problems," Dr. Rodziwicz said. "I used the HPS simulator and the remote laptop, and I stayed in the room with the new residents to keep them from getting too nervous. I did everything on the fly so I could influence how the scenario

went. It built my confidence working with the new Müse platform."

This year's senior residents are the first graduating class at USC to have had three years of simulation training. Dr. Rodziewicz believes they will be better clinicians because of their training in rare clinical events and crisis resource management.

"These residents are very engaged in wanting to improve the quality of healthcare," Dr. Rodziewicz said. "They are a different generation. They want to change medicine. My vision is to eventually empower residents to get involved in their own quality improvement initiatives, using simulation as a tool to discover latent errors in systems, improve processes, prevent errors and improve patient safety."

Dr. Rodziewicz is currently enrolled in the Master's of Academic Medicine program at USC and has a letter to the editor accepted for publication in the journal Simulation in Healthcare.

USC Keck School Offers Master of Academic Medicine

The USC Keck School of Medicine now offers a Master of Academic Medicine (MACM) for medical and health professions faculty or staff. Presented in collaboration with the Schools of Dentistry and Pharmacy, the program employs a blended model, combining online coursework with annual on-campus sessions for one week each February. Graduates become process experts with a broad repertoire of learning approaches, including simulation, that can be applied to varied content arenas and situations. To learn more, visit Master of Academic Medicine. For information, call (323) 442-2372 or send a request to Dr. Julie Nyquist, nyquist@usc.edu.



Armada de Chile Conducts 10th Annual C4 Course

n July, the Armada de Chile conducted its 10th annual Combat Casualty Care Course, also known as C4. The event consisted of 158 students representing nine countries, including Argentina, Ecuador, Colombia, Paraguay, and Uruguay. A select group of civilians, including firefighters, governmental EMS and Red Cross responders, joined the exercise in order to increase readiness and share the lessons learned in the field.

The Chilean Navy offers the course in cooperation with the Defense Medical Readiness Training Institute (DMRTI) at Fort Sam Houston in Texas. Instructors from the Armada de Chile and other military branches, the Chilean Red Cross, the Chile Emergency Public Health Service and

The Chilean American C4 was the first course of its type offered on the continent, and the first to incorporate simulation training. This year's participants trained with CAE Healthcare's Caesar, iStan, ECS®-Emergency Care Simulator and METIman simulators. "We felt very confortable with the simulators, and the field tactical experience was incredibly real," said CDR Carlos Rivera MD, director and instructor of the C4 course in Chile for 10 years.

Since 2003, more than 1,100 students have participated in the C4 field exercises, lectures and skill station training. The Chilean version of C4 is unique because it trains across the spectrum of combat care, including doctors and medics to Special Forces officers, in order to facilitate teamwork and "train the trainers."

Photos provided courtesy of CDR Carlos Rivera, MD, FACS, Director Medical Simulation Training Center, Chile Navy Health Department.

Tactical Combat Casualty Care (TCCC) in Germany

Healthcare conducted training workshops in June at the Tactical Combat Casualty Care (TCCC) Symposium in Germany with the Caesar point-of-care trauma simulator. The symposium was hosted by the German Bundeswehr Special Operations Training Center in Pfullendorf, Germany in cooperation with the German Society for Military Medicine and Pharmacy (DGWMP). Approximately 300 combat medics and physicians from different European countries participated in the events. Dr. Holger Buggenhagen from the University of Mainz in Germany led the workshops with support from Udo Sonnthal, CAE Healthcare technical support specialist.

Pictured, the German Bundeswehr Special Operations Training Center in Pfullendorf, Germany recently hosted a Tactical Combat Casualty Care (TCCC) symposium with training workshops including the Caesar trauma simulator.







The best place to train your medics is where they'll experience what it'll be like to be out with the troops. And with Caesar, you can.

Environmental conditions in combat or "point of injury" situations can be hostile and make emergency care demanding. Rugged, durable and water-resistant, Caesar is a trauma patient simulator that can be used in all types of terrain and climates.

More importantly, Caesar behaves like a real soldier that's been wounded, with dramatic bleeding, responsive speech and eye movements, and accurate responses to tourniquet applications and other treatments.

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U.S. Army, Navy, Air Force and Marine Corps Use Patient Simulation in Joint Training Exercise

and METIman Prehospital were key players in a "Global Medic 2012" joint military exercise at Fort Hunter Liggett, California in June. Air Force, Army, Navy and Marine Corps units from across the United States participated in a twoweek exercise that simulated real-world missions.

iStan played a critical role in allowing Critical Care Air Transport Teams (CCATT) to provide "care in the air." CCATT missions typically move critically ill or wounded service members from initial levels of care to Level One facilities in the United States or Germany.

METIman was used extensively in the Expeditionary Medical Support (EMEDS) tents. Wounded soldiers are transported to EMEDS tents for initial care and stabilization before being transferred to higher levels of care if necessary. The medical teams consisted of Air Force, Navy and Army medics working side-byside to evaluate and provide care to METIman. The joint simulation training provided insight into what to expect when physicians, nurses and medics deploy with joint-service operations.

The joint simulation training provided insight into what to expect when physicians, nurses and medics deploy with joint-service operations.







"When you have a code, someone has to establish themselves as a leader and nobody wanted to step forward and be in charge," said Kelley Huseman, professional development specialist at Ephrata Community Hospital, USA. "They got much better at one person stepping up and saying 'Okay, they are in V-tach, here is what we are going to do."

elley Huseman MSN, RN-BC, spent 20 years as a critical care and intensive care nurse before joining a small community hospital in Pennsylvania, USA as a professional development specialist. One difference she quickly noted at the 130-bed Ephrata Community Hospital was the rare occurrence of a few code blues each month, far fewer than Huseman had seen during her nursing career.

"I observed a few codes and realized they weren't real smooth codes like I was used to," Huseman said. "I thought if they could just practice more, they would get better at it."

In 2009, the hospital purchased iStan and The Nurse Residency Program and Huseman began to conduct unannounced code blue simulations.

"I'd go in on weekends or at 2 a.m. in the morning and put him in a room, get him into a code blue scenario and put him in V-tach (ventricular tachycardia). I would call the emergency department and give them the heads up so they wouldn't have to leave a busy ER to come to a drill," says Huseman.

After witnessing improved performance within the ICU unit, Huseman decided to get all the departments involved in a code blue study. She published her results in the May/June Journal for Nurses in Staff Development in an article titled "Improving Code Blue Response Through the Use of Simulation."

During the study, Huseman measured response times for chest compressions, defibrillation and epinephrine administration before and after conducting mock code drills with iStan. The response times for start of chest compressions and epinephrine administration improved significantly.

"I would call the code and start my stopwatch to see how long it would take people to show up. Getting there was not the issue. Getting people to actually start CPR was a big hurdle," Huseman said. "I had to do a lot of education with the floor nurses that they need to start basic life support before the code team gets there."

"When you have a code, someone has to establish themselves as a leader and nobody wanted to step forward and be in charge," Huseman added. "They got much better at one person stepping up and saying 'okay, they are in V-Tach, here is what we are going to do.'"

Today, the hospital requires that every nurse participate in a code blue drill at least once a year, and Huseman generally conducts drills

"The staff really enjoyed working with iStan," Huseman said. "But if I had seasoned nurses on a team that performed really poorly, I would let happen what would happen in a real-life situation. Having him die was really sobering for a lot of people."

Huseman, K.F. (2012). Improving code blue response through the use of simulation. Journal for Nurses in Staff Development, (28)3, 120-124.

"Ultrasound can help us

manage and treat patients'

WakeMed Center for Innovative Learning Trains EMS Responders in Ultrasound

ver the past few decades, EMS providers have rapidly adopted hospital technologies—from pulse oximetry to 12-lead ECG monitoring to capnography — that have allowed emergency responders to capture more accurate patient information and deliver better care. Amar Patel, director of the WakeMed Center for Innovative Learning, which is part of WakeMed Health and Hospitals in Raleigh, North Carolina, USA, believes that the next wave of technology for EMS will be ultrasound.

"Ultrasound can help us manage and treat patients' medical trauma more effectively," says Patel. "It's a tool that we need to embrace."

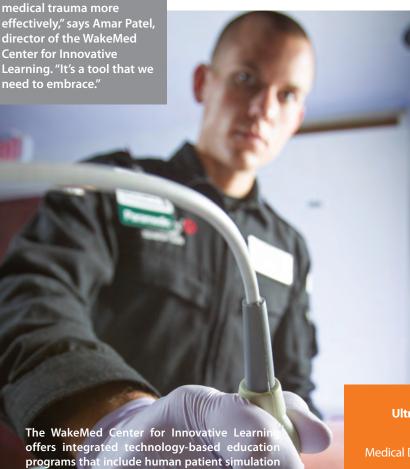
An emergency responder can use point-of-care ultrasound to conduct an enhanced Focused Assessment with Sonography in Trauma (eFAST) exam to check for fluid around the heart or in the abdomen, to diagnose a pneumothorax, or for ultrasound-guided vascular access.

"Knowledge is power. If I see that there's blood in the belly and the blood pressure is low, it will change the treatment. I'm going to go to a trauma care center," say Patel. "If I can diagnose a pneumothorax and tell the doctor he's got a hole in his left lung, it will help speed up the management of the diagnosis and care."

Patel recently began using a CAE Healthcare VIMEDIX ultrasound simulator to train emergency responders, and has found that simulation helps speed up the learning process. "Ultrasound is still a new thing to first responders. The VIMEDIX anatomy shows you everything that's there. It helps students become comfortable with the probe direction and better understand what's there as you move the probe."

This fall at the EMS World Expo in New Orleans, Patel and WakeMed emergency physicians Graham Snyder and Brendan Berry will present a full-day preconference session on ultrasound for EMS. CAE Healthcare is sponsoring the session and will provide a VIMEDIX ultrasound simulator for hands-on training.

The session will feature stations for practicing placement of an IV catheter, completing an eFAST exam, performing a cardiac ultrasound and assessing central venous pressure, diagnosing a pneumothorax and performing an ICP measurement. "The EMS community is really interested in ultrasound," says Patel. "We're introducing the process, the steps and technique."



and healthcare gaming, enabling health care providers to practice without compromising patient safety. To learn more, visit wakemed.org.

Ultrasound for EMS at EMS World Expo Presenters:

Graham Snyder, MD,

Medical Director of the WakeMed Center for Innovative Learning

Brendan Berry, MD, FACEP,

Medical Director of WakeMed Mobile Critical Care
Amar Patel, MS, NREMT-P, CFC,

Director of the WakeMed Center for Innovative Learning

New Orleans • October 30, 2012 • 8 a.m. – 5 p.m. Register at www.emsworldexpo.com



An educator leads a patient simulation at HPSN Asia Pacific as 2011 attendees watch.

Asia Pacific HPSN Conference Coming Up in Taiwan

The Taiwan Society of Emergency Medicine and KYS Technology will cohost the Asia Pacific HPSN conference at Chang Gung University of Science and Technology in Taoyuan, Taiwan October 27-28, 2012. With a theme of "Learning, Practicing and Working Together," the free conference will bring together healthcare professionals and simulation experts from across the Asia Pacific region to debate, discuss, explore, share and network. Conference highlights will include a welcome party on the first day and the CAE Cup (formerly the METI Cup) critical care skills competition, where professionals will treat an acute patient in real time using a high-fidelity human patient simulator. Register at hpsn.com

Teams compete in the METI Cup (now called the CAE Cup) critical care skills competition at the 2011 Asia Pacific **HPSN** conference in 2011.

On the Scene at UK Nursing Simulation in Education Conference

The next UK Simulation in Nursing Education Conference is being co-hosted by the University of Bedfordshire on June 5-6, 2013

Nearly 200 nurses, allied healthcare professionals and simulation technologists attended the sixth annual UK Simulation in Nursing Education Conference in June. The conference, hosted in West Yorkshire, focused on "International Simulation Standards: The Impact on Educators. The Faculty of Health and Social Sciences at Leeds Metropolitan University (LMU) co-hosted the event, which was led by Ann Sunderland, senior lecturer and lead for Simulated Practice and Chris Hudson, associate dean of research and enterprise.

Ieuan Ellis, dean and professor at LMU, Michael Bernstein, president of CAE Healthcare, and Bryn Baxendale, director of the Trent Simulation and Clinical Skills Centre (TSCSC) and president of the Association for Simulated Practice in Healthcare (ASPiH) provided a warm welcome. The audience was engaged and animated by a lively presentation titled "Nevermind the Width, Feel the Quality" and this tone of enthusiasm continued for the duration of the conference. The closing keynote of the opening day focused on "Safe Practice" and Sue Mullaney, department head for London South Bank University, challenged the audience.

Dr. Jay Ober, national director of Nursing Operations and regional dean of Nursing, Education Affiliates in Maryland, USA, opened Day Two with an inspiring talk about "Implementing a Multicentre Patient Safety Simulation Program: Improving Quality in Healthcare Education." The International Nursing Association for Clinical Simulation and Learning and ASPiH addressed delegates from 12 countries about the important work being undertaken by both organizations and many signed up to be part of their societies. During the two-day event, delegates were able to choose from 24 sessions including mental health nursing, implementing an evaluation tool, and working in a hospice setting. This year there was a lively poster walk with 14 excellent posters with a poster prize that was awarded to Helen Henderson from University of the West of Scotland with "Ready, Steady ... Teach!"

Thank you to all the team at LMU and all the presenters. The next UK Simulation in Nursing Education Conference is being co-hosted by the University of Bedfordshire on June 5 - 6, 2013. Hope to see you there!





EVENTS CALENDAR

Register for events at hpsn.com

International Events

HPSN ASIA PACIFIC

Chang Gung University of Science And Technology October 27-28 Kwei-shan, Taoyuan, Taiwan Co-hosted by KYS Technology and the Taiwan Society of Emergency Medicine

HPSN EUROPE

HPSN Europe 2012 Erbacher Hof, Akademie & Tagungszentrum des Bistums Mainz Mainz, Germany November 9-10

North American Regional Events

MID-ATLANTIC REGIONAL HPSN

Co-hosted by the University of Virginia School of Medicine and School of Nursing Charlottesville, Virginia USA November 2-3

WESTERN REGIONAL HPSN 2012

St. Joseph's Hospital and **Medical Center** Phoenix, Arizona USA November 8-9

CAE CUP 2012

Air Medical Transport Conference Seattle, Washington, USA October 22-24

Ten top air medical crews from across North America have been chosen to compete in the 2012 CAE Cup critical care skills competition. The CAE Cup, formerly the METI Cup, is part of the annual Air Medical Transport Conference (AMTC), which takes place October 22-24 in Seattle, WA. Each team will compete in real time, challenging simulation scenarios with CAE Healthcare patient simulators. This year's competitors are British Columbia Ambulance Services, LifeFlight of Maine, MedFlight of Ohio, Native Air, NorthWest MedStar, Orlando Medical Institute, STARS, University of Michigan Survival Flight, University of Utah AirMed and WakeMed Mobile Critical Care Services.

hpsn.com HUMAN PATIENT SIMULATION NETWORK EVENTS



HPSN Europe Announces Keynote Speakers and Program

HPSN Europe is pleased to announce the keynote speakers for its upcoming conference in Mainz, Germany on November 9-10. Dr. Marlies Schijven, surgeon and president of the Dutch Society for Simulation in Healthcare, will speak on simulation and serious gaming for skills development. Dr. Wolfram Voelker, professor of Internal Medicine/Cardiology at the University Hospital Würzburg, will deliver a keynote on simulation-based training in cardiology. Dr. Brendan McGrath of University Hospital of South Manchester will review England's national tracheostomy safety project and its novel use of medical simulation.

With a multi-professional and multi-national theme, HPSN Europe attracts presenters and delegates from across Europe and around the world. This year's attendees will have the opportunity to register for pre-conference courses at CAE Healthcare's training center in Mainz and the chance to meet the latest technologies from CAE Healthcare, including Caesar, LapVR, EndoVR and HPS with Müse. Register at hpsn.com.



Scholar at the Institute for Clinical Competence.

NYCOM Introduces Master of Science in Health Care Simulation

The Institute For Clinical Competence at New York College of Osteopathic Medicine (NYCOM) launched its Master of Science in Medical/Health Care Simulation in September with 10 students from around the United States. With a goal to educate future leaders in healthcare simulation, the program is designed for working professionals who assess professional performance, manage patient simulation centers and patient safety programs and generate innovative research. Students learn about major simulation modalities, teaching methodology and leadership. Much of the work can be completed online and via teleconference. For information about the program, visit http://nyit.edu/nycom/academics/icc/



Inhale. Exhale. Inhale. Exhale. HPS breathes.



HPS is the only simulator that truly breathes. Which is just the beginning. For a generation of critical healthcare professionals — from anesthesia to respiratory, emergency, and critical care — the HPS has been the standard by which patient simulators were judged. That tradition continues, with the new generation HPS. Sleeker. Quieter. And powered by Müse, our state-of-the-art operating and interface technology. Which means that getting the most out of HPS is even easier. Best of all, we've made getting a new HPS simple, too, with an innovative trade-in program designed to make the HPS as attainable as it is extraordinary. To learn more, contact us at 866-233-6384, or visit us online.

