



VA Deputy Secretary Sloan Gibson (right) observes a mannequin during a simulation presented by Dr. Haru Okuda, SimLEARN national medical director (center). Dr. Manny Dominguez, Employee Education System deputy chief learning officer, also observes. (VA photo by Mike Strickler)

VA secretary, deputy secretary tour VHA SimLEARN National Simulation Center

By Gerald P. Sonnenberg
 EES Marketing and Communication

ORLANDO, Fla. – Staff at the SimLEARN program recently welcomed VA Secretary Robert McDonald and VA Deputy Secretary Sloan Gibson to the VHA SimLEARN National Simulation Center (NSC) here. McDonald visited the NSC Feb. 27, and Gibson toured the facility March 31.

During both visits, Dr. Manny Dominguez, Employee Education System (EES) deputy chief learning officer, first briefed them on new developments, like the VA Virtual Medical Center (VMC) and the SimLEARN Portal. The VMC integrates medical consultation, expanded clinical care delivery, patient education and continuing education for staff in a 3-D virtual world. The SimLEARN Portal

provides the VHA medical simulation community of practice with a centralized, web-based presence focusing on medical modeling, simulation training and education.

Dr. Haru Okuda, SimLEARN national medical director, then briefed the visitors on the VHA national simulation network and its next steps, provided an overview brief of SimLEARN, delivered a demonstration of the simulator and gave them a short tour of the simulation center.

“Ongoing projects, including the VMC, training standardization products under development and the growing collection of online-based best simulation practices, are important to the future of VA health care,” said Gibson, during his visit. “VMC is an avatar-based system that allows Veterans freedom of choice in selecting virtual avenues of Veteran controlled care. It is a ‘best practice tool’ for collecting, assembling and offering a single point for videos, vector-based simulation clips, process and practices in a one-stop environment.” ❖

Educational gaming provides new training environments for VA health care clinicians

By Leslie Dubow
SimLEARN Associate Director
for Educational Gaming

ORLANDO, Fla. – SimLEARN is the VHA program for medical health care simulation training. It provides an ever-growing body of curricula, training and best practices to improve professional medical health care performance for our nation's Veterans. To further enhance this mission, SimLEARN recently hired specialists in educational gaming (EG). This new SimLEARN element is designed to develop serious educational games using commercial, game-based mechanics, structured play, rules, aesthetics, challenges and game thinking to immerse learners, motivate action, solve problems and promote learning with formative and summative feedback.

The EG team applies “gamification” to VHA learning. In other words, the SimLEARN EG team designs serious games to help learners develop specific predefined professional medical health care knowledge, skills and attributes. However, the team also uses some of the attributes of casual or leisure games design to inject some immersion and fun into the products.

Through interactive immersive digital computer and mobile gaming technology, SimLEARN game-based learning recreates real-world contexts, events and tasks focused on specific learning goals, objectives and competency-based training anywhere or anytime to enhance professional development and medical health care performance. These realistic,



Realistic images of a tele-ICU from one of the educational simulation games. (VA courtesy image)

interactive, immersive, motivational and contextualized scenarios help improve the transfer of acquired knowledge, skills and attributes to the everyday medical health care work environment. Learning games also optimize meaningful learning experiences by combining compelling and evocative design with contemporary education and training practices. The learning game provides achievable goals using challenges posed in environments requiring solutions through the demonstration of domain understanding.

Participants identify and solve problems, think critically and complete tasks over time in different virtual places. Good learning games compel learners to be fully engaged through intrinsic and extrinsic motivations. They evoke enjoyment and interest in solving problems and meeting new challenges with success, and a well-designed serious game provides compelling opportunities for intentional learning in applied practice. Furthermore, learning games' contextually specific experiences maximize practice in safe environments

that simulate hands-on learning and help increase competent applied performance.

Technically, most of the products will be delivered via a web browser or mobile application. During the first year the team plans to deliver a game application (iOS or Android) that familiarizes learners with donning and doffing personal protective equipment.

New browser games in development include: a multiplayer game that will allow an entire tele-ICU team to practice together in a realistic and safe shared environment; a single-player game that will communicate important “VHA Choosing Wisely” messages on back-pain management and hypoglycemic safety; a simulation that allows a learner to practice palliative care discussions and treatment decisions with artificially intelligent patients; a single-player game that enables development of a customized crash cart that becomes the training aid for becoming familiar with where instruments are on the cart and

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Specialized equipment, simulation suits help VHA staff, Air National Guard members care for bariatric patients

*By David Adriansen, Ed.D, NREMT
VISN 23 Simulation Champion
Minneapolis VA Simulation Center*

MINNEAPOLIS – The VISN 23 simulation program partnered with the VISN 23 Safe Patient Handling and Mobility (SPHM) program to improve staff and patient education on the safe procedures for managing obese patients. A bariatric patient is anyone who has limitations in health due to physical size, health, mobility and environmental access.

Training is needed for health care professionals involved with the care of bariatric patients to address the special challenges, such as turning and repositioning a patient in bed, transferring them in and out of bed, holding a limb while performing patient care tasks and other activities of daily living.

VISN 23 purchased bariatric simulation suits for nine VA Medical Centers to provide more realism for VHA staff and military members performing clinicals at VA.

The impact has been significant, and these suits are helping reach the goal of providing patients safer care in a manner that offers greater comfort, while reducing falls and injuries to patients and health care professionals.

Technology, such as bed systems, patient transport devices and turning and repositioning devices help mitigate staff injuries due to handling and mobilizing the bariatric patient. Training with the bariatric simulation suit also helps

*(Left to right)
Airman 1st Class
Lindsay Greninger,
Minnesota Air
National Guard
(ANG) aeromedical
technician; and Jeffery
Bryan and Toninette
Payne, nursing
assistants, practice
caring for a “bariatric
patient” Airman Ethan
Ator, ANG. (VA photo
by April Eilers)*



staff understand the body mechanics involved and the proper selection and usage of the SPHM equipment to support patient care.

Nancy Kirchner, Minneapolis VA Health Care System SPHM program coordinator said, “Not only did the bariatric simulation suit help address issues common with handling and mobilizing bariatric patients from a caregiver perspective, it was an eye opener for those wearing the suits. Staff could not believe how difficult it was to even scratch their nose,” she said. “These suits have been an incredible learning opportunity.” ❖

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competing against others for spots on the local leaderboard; and a single-player game that provides experiential learning in shift management decisions for the charge nurse. There are other products in analysis and development.

Lastly, just as in major film studio productions or orchestral performances, learning games require the collaborative efforts of diverse team members. Learning game development is like an all-in-one digital amalgam of the performing and visual arts disciplines with the educational, instructional, curricular, psychological and medical disciplines. A multi-

disciplinary collaborative learning game development team includes the roles and responsibilities of instructional systems designers, curriculum developers, instructors, game designers, game and graphic artists, animators, photographers, audio-visual producers, musicians, software developers, story developers, subject matter experts (providers and allied health professionals), contract specialists and project managers.

VA staff can see available games, such as sample health care games donated by game developers and see what is in production, on the newly launched SimLEARN Portal, https://vaww.simlearn.vha.med.va.gov/SimLEARN/Gaming/myees_default.aspx. ❖

Medical providers practice controlling the 'A' in the ABCs of safe patient care

By Rosalia Scalia, MA
Public Affairs Specialist
VA Maryland Health Care System

BALTIMORE – On the gurney, a patient is air hungry. He struggles with a number of issues, but a neck injury interferes with his ability to breathe, and he needs to be intubated, stat.

Doctors know that controlling and managing a patient's airway is the A of the ABCs of safe patient care. Doctors also know that if a patient can't breathe, nothing else they do for that patient will help. It's that simple; the balance of life and death hangs on the ability to breathe. A clinician's skill level determines patient comfort and safety, while keeping a patient breathing, which in turn, keeps a patient alive.

"Intubating patients is a procedure learned in medical school. In every day patient care, however, it's not often required, and as with any skill, practice makes perfect. It's not unusual at any medical facility for doctors to know the theory of intubating a patient, while their actual practice skills are underdeveloped," said Edward Norris, chief of anesthesiology at the Baltimore VA Medical Center (VAMC) and clinical professor and vice chair of the Department of Anesthesiology at the University of Maryland School of Medicine.

"We want to ensure that all our clinicians possess high competency levels and confidence in their abilities to intubate patients in every situation, from the easiest to the most challenging," he said.

Enter "Henry," a state-of-the art, high-fidelity mannequin that appears and acts human. Henry serves as the training patient in the new simulation learning center at the Baltimore VAMC. To maintain high standards of patient safety, clinicians must undergo ongoing professional training to sustain and sharpen their procedure skills and to keep their privileges to intubate patients.

The training team—led by Dr. Nigam Sheth, staff anesthesiologist and director of resident and student educational affairs—uses Henry and a group of other computerized mannequins to simulate scenarios that clinicians may encounter. Behind the scenes, Sheth operates the computer that animates Henry and designs the scenarios for his fellow physicians. He often designs lessons across the continuum from less difficult to



The simulation learning team at the Baltimore VAMC includes (left to right) Dr. Edward Norris, chief of Anesthesiology; Karen Patrick, anesthesiology technician; Amanda Beccaloni, nurse anesthetist; and Dr. Nigam Sheth, anesthesiologist. (VA courtesy photo)

extremely challenging, depending on what the clinicians need or want to improve and at what level the clinicians are in their careers. Participants in the scenarios range from new trainees, to long-established clinicians, and at each level, the scenarios focus on either a skill that needs perfecting or a new aspect that benefits an experienced clinician.

"Some of the more experienced clinicians, at times, will come in feeling a bit skeptical that they can learn anything new and different, but Henry and the equipment quickly change their minds. A laryngoscope with a small camera at the tip can help physicians gain a superior and clear view of the throat which can make the intubation process a bit easier because of the clear view," Sheth says.

Two other team members—Certified Nurse Anesthetist, Amanda Beccaloni, and Anesthesia Technician, Karen Patrick—comprise the rest of the simulation learning team, with each playing assigned roles to drive the clinician down the wrong path and to obstruct care, so that clinicians must overcome obstacles and make decisions in the best interest of the patient.

"The point is for clinicians to gain a strong knowledge base so they will be confident to stand by what they know. Good patient care requires team work and effective teamwork can improve the quality of patient care and reduce medical errors," Sheth said.

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Nurses meet to plan common nursing orientation scenarios

ORLANDO, Fla. – Eighteen nurses from various VHA medical facilities met at the Orlando VA Medical Center in February to collaborate on nursing orientation simulation scenarios. Approximately twenty scenarios were identified and developed related to common nursing practices usually examined during service orientation. ❖

(Photo, left to right) Front row: Beverly Snyder-DeSalles, Joel Ottoson (sitting), John Gordon; Row 2 – Martha Ybarra, Donna Karr, Tina McConnell, Heather Thomas, Neil Coogan; Row 3 – Melissa Brickner, Bridget Everett, LeAnn Schlamb; Row 4 – Kathryn Davies, Sharon Narducci, Bernadette Montano, Patricia Amaro; Row 5 – Lygia Arcaro, Judith Young; Top Row – Griselle Del Valle (VA courtesy photo)



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On the gurney Henry, also known as “SimMan,” talks. He says he’s not feeling well. He blinks, coughs, sneezes, vomits and then codes. The clinicians in the training must react to the medical emergency. Henry’s responses are realistic, mimicking a range of how actual patients would react in similar circumstances. He could be having a heart attack, a stroke or any number of emergency situations that would require clinicians to respond rapidly. Henry can perform every bodily function that a real person does in the same situation and exhibits a wide range of symptoms requiring specific actions, such as automatic drug recognition, or lips turning blue from a lack of oxygen.

“The mannequins are part of a continuum, allowing for increasingly more complex situations,” said Robert A. Brown, director of employee education. “With the mannequins, mistakes are welcome. It’s better to perfect skills with a mannequin like Henry than a real person. The ultimate goal of simulation learning is to continually improve health care for Veterans by providing a safe, supportive and adaptive environment for clinicians to acquire new skills, demonstrate proficiencies and practice high-risk procedures resulting in increased competence, confidence and patient safety.”

Clinicians undergoing the training agree. Dr. Preeti John, critical care surgeon and acting director of the Surgical Intensive Care Unit at the Baltimore VAMC and

clinical assistant professor at the University of Maryland School of Medicine, said, “using the SimMan allows clinicians to practice and repeat procedures and treatment protocols before using them on actual patients. Learners have the opportunity to practice on the computerized SimMan to fine tune their skills and correct any mistakes without putting any patients at risk.”

On the gurney, Henry begins breathing normally; his high-fidelity chest rising and falling with each breath. Clinicians, who rapidly responded successfully to his coding, know that they ushered him through his medical emergency to a stable condition, and Henry waits quietly for the next group of clinicians and the next scenario to unfold. ❖

Simulation training includes assessment of patients in a natural disaster

*By Janet Sprehe, DNP(C), APN-BC; Carol Wilson, DNP(C), RN; Carla Brunk MSN, RN; Henry S. Park, MD and Travis D. Garrett, MA
James A. Haley VA Hospital*

TAMPA, Fla. – Disaster preparedness is a critical response for health care providers. In March, 48 staff members at the James A. Haley VA Hospital in Tampa created an educational experience utilizing immersive simulation in assessing patients involved in a natural disaster. The purpose of the training was to enhance triage competencies by condition, treatment needed and available resources. This coincides with the principle of how each health care facility may have to rely on its own resources, preparedness and response strategies before national or regional assistance arrives in response to an actual disaster.

The emergency department (ED) has been providing trauma nurses with exercises at the Tampa facility to help nurses become certified trauma nurses. The exercise involved a mini earthquake occurring nearby. Staff encountered 12 mannequins wearing moulage, as well as high-fidelity simulators needing triage. Only the resources of four operating rooms and one computed tomography (CT) scan were available. Critical decision making was

performed in interprofessional groups as participating staff were briefed on each of the twelve cases by a simulation faculty trainer.

The staff found this experience to be very useful for this certification preparation. Currently, the ED has 17 of its 40 staff members certified as trauma nurses. The scenarios used were obtained from the Trauma Nurses Organization who granted the hospital permission to use them in their simulation training. Some of the scenarios involved pelvic fractures, ruptured spleens, compartmental injuries, head injuries, motor vehicle accidents and stab wounds.

After reviewing each scenario, participants practiced establishing the triage level, working with the limited available resources. The triage assessment sheet was the standard disaster planning, color-coded ranking sheet used for emergency preparedness. The colors on this standardized disaster assessment sheet included red, yellow, green and black. An assessment assigned a red color meant the patient was high priority; yellow meant the patient was a delayed priority; green meant the patient was no real priority for treatment, but still needed to be observed; while black meant the patient was most likely to die and would be made comfortable and reassessed after all red and yellow patients were treated.

After each scenario, participants received feedback from the simulation faculty and learned more about trauma injuries and prioritizing care with limited resources. The facilitators were able to help participants better assess for complications that may be a result of the injury, but not necessarily seen.

The training session took approximately 60 - 90 minutes for staff to go through each of the twelve scenarios. After completing the training, participants were asked to complete an evaluation to receive an hour of continuing education unit credit. Staff requested more of these simulation trainings.

Travis D. Garrett, emergency manager at the hospital said, “I feel these simulation exercises also helped us in our county natural disaster training since our scores from last year improved. Simulation has a vital part in our disaster emergency management understanding.” ❖



Memphis VAMC nurses achieve milestone

*By Gerald P. Sonnenberg
EES Marketing and Communication*

MEMPHIS, Tenn. – Staff at the Memphis VA Medical Center (VAMC) achieved a milestone with 100 percent completion of the Trauma Nursing Core Course (TNCC) by nurses in their emergency department. The course is provided by SimLEARN's Resuscitation Education Initiative (REdI). REdI Health Education Specialists Susan Martenson, Vanessa Aycock and Robert Kraemer conducted the training, and the final 13 Memphis RNs successfully completed TNCC qualification March 12.

TNCC is an evidence-based course designed to use adult learning principles. It combines interactive and simulation-based training for standardized assessment of sick or injured patients. It is widely recognized as the premier course for hospital and trauma centers worldwide and empowers nurses with knowledge, critical thinking skills and hands-on training to provide expert care for trauma and other injured patients. The 3-day course includes a systematic approach of initial assessment, evidence-based content written by trauma

experts, hands-on skill stations and five online modules which are complete case studies taking nurses through an entire sequence of care. Upon successful completion of the course, nurses are issued a 4-year provider verification card.

"I must commend all the nurses for their hard work," said Jane Robinson, BSN, RN, REdI program director and simulations coordinator at the Memphis VAMC. "This is a challenging course, requiring extensive preparation. I am very proud of their achievements. The instructors from REdI were impressed by the professional demeanor of our nurses, their engagement in the class and the wonderful questions showing how well they had prepared for the course.

Robinson, as well as fellow nurses Jason Fleener and Derrick Meadow, achieved Instructor Potential status and have been invited to become instructors.

"As we go forward with the TNCC program, REdI will be training several instructors for our facility," said Robinson. "When their training is complete we will be able to offer TNCC in-house."

If your staff are interested in TNCC training, contact REdI's Susan Martenson, at susan.martenson@va.gov, or your REdI health education specialist. ❖

National Simulation Center selected as one of four fellowship sites

*By Gerald Sonnenberg
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ORLANDO, Fla. – The VHA SimLEARN National Simulation Center (NSC) here was recently selected as one of four sites for the newly announced Office of Academic Affiliations (OAA) Advanced Fellowship in Health Professions Education Evaluation and Research. The selection was based on a competitive review process in response to a request for proposals released this past December.

The fellowship program is a 2-year, interprofessional fellowship focused on training clinical educators in the knowledge and skills needed to assess the interaction

between the education programs in clinical settings and to develop, implement, assess and improve curricula in order to transform health professions education. It will be run in partnership with the educational leadership at the Orlando VA Medical Center (VAMC). The other sites chosen are the San Francisco VA Medical Center, Michael E. DeBakey VAMC in Houston and the National Center for Patient Safety at White River Junction VAMC in Vermont.

In conjunction with this announcement, SimLEARN is offering two paid Advanced Fellowships in Health Professions Education Evaluation and Research. The fellowships will be located here at the VHA SimLEARN National Simulation Center.

For more information on qualifications, go to the OAA webpage at www.va.gov/oaa/specialfellows/default.asp. ❖

'My journey to Oz': REdI affiliation beneficial in nurse's eyes

*By Mary Jane Schoendorf, RN, BSN, MA
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Editor's Note: *Mary Schoendorf retired in March, but wanted to provide her perspective on the benefits that the Resuscitation Education Initiative (REdI) provided her and the staff at the Battle Creek VAMC.*

BATTLE CREEK, Mich. – The Resuscitation Education Initiative (REdI) program came to the Battle Creek VA Medical Center (VAMC) in the summer of 2012. We weren't really sure what to expect, but what we have experienced is a whirlwind of improvement. I thought we previously had a pretty good basic life support (BLS) program, but little did I know when we began the affiliation with REdI, we were on a journey to the Emerald City. REdI raised the bar beyond my expectations.

Poor quality cardiopulmonary resuscitation or CPR is a preventable harm, and optimal CPR is an achievable goal. That is what REdI has meant to staff here in Battle Creek. Previously, when something malfunctioned, we were unsure how long it would take to get it replaced. Now, we are guaranteed

great equipment; but most importantly, GREAT human support. Susie Martenson, Bob Kraemer and Phil Hargreaves (REdI staff at the VHA SimLEARN program) are truly only a phone call away, and each of them is just as accessible as the next. It can be disconcerting when you are a long distance away, but the REdI staff is there to assist and support no matter what issue or question arises. Now we are secure in the knowledge that we also consistently have sufficient supplies.

We received our first two sets of voice-assisted mannequins (VAMs) in April 2014. I was not sure what this technological toy was going to really mean for us. However, I am a convert. The consistency and objectivity just can't be achieved with a human instructor. We have the BEST instructors in our facility, but the VAMs even top us, which is difficult to believe.

It is wonderful to be able to reinforce to the staff that this is the quality of CPR that needs to be delivered to save the victim's life. No longer do they think it is a "hard" instructor. Yes, they do say that the mannequin is too hard, but we can objectively say this is the amount of effort that needs to be expended to save a person; and it can be done. When the employees pass the course, they feel they have really accomplished a feat. They are confident they can perform proper BLS. It also prepares them for the real-world emergencies they will encounter in their job or life. ❖

Construction update

Construction continues on the new VHA SimLEARN National Simulation Center (NSC) in this March photograph looking west and taken from the new Orlando VA Medical Center (VAMC). The NSC is being constructed in front of and to the right of the new Orlando VAMC in Lake Nona's Medical City near Orlando, Florida. Construction is expected to take approximately 15 months. (VA photo by Ramon Garcia) ❖



SimLEARN Newsletter is a product of the Veterans Health Administration SimLEARN National Simulation Center. The program's operations and management is conducted by the VHA Employee Education System in close collaboration with the Office of Patient Care Services and the Office of Nursing Services. For more information, visit www.simlearn.va.gov or e-mail VASimLEARNGeneralInformation@va.gov.



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