

Palo Alto setting for VHA clinical simulation instructor training

By Gerald Sonnenberg
SimLEARN Staff



Participants of the SimLEARN Palo Alto Clinical Simulation Instructor Training Course practice a procedure on a mannequin during a simulation exercise in February. (Photo by Curt Campbell)

PALO ALTO, CA - Fifty aspiring clinical simulation educators across varied disciplines, such as physicians, nurses and associated health care providers, participated in several SimLEARN Palo Alto Clinical Simulation Instructor Training Courses in February through May. The primary purpose of the training was to help build a cadre of qualified VHA clinicians who can facilitate health care training that makes use of simulation modalities.

The five training events were a cooperative effort between SimLEARN, VHA Palo Alto Health Care System (PAHCS) and Stanford University. Under the guidance of PAHCS faculty, the future simulation educators learned the safe use of equipment and techniques, how to develop appropriate learning objectives and simulation scenarios and the art of conducting an effective debriefing. They also gained awareness of ethical and regulatory considerations that impact simulation education.

For Ms. Emily Larimer, a registered nurse and clinical educator from the Black Hills Health Care System in Ft. Meade, SD, the Palo Alto training was her first experience with SimLEARN.

“This training provided us with a myriad of educational modalities and resources,” she said. “It also provided us an introduction and application of

the Crisis Resource Management (CRM) paradigm concerning the setting of health care.”

Dr. David Gaba, staff anesthesiologist at the PAHCS, has conducted ground-breaking research in CRM in clinical care settings. He designed and led the CRM-oriented simulation instructor training taught during the sessions. CRM was initially developed for the airline industry after the crash of Eastern Airlines flight 401 in 1972. It is a technique that requires air crews to divide the work in the cockpit among available crew, ensuring that someone focuses on flying the plane while troubleshooting continues.

“The awareness and application of this paradigm assisted us in creating objective and significant outcomes within the health care setting,” explained Ms. Larimer. “The paradigm awareness guided us to remain focused and, ultimately, led to effective learning objectives concerning the participants within the simulation scenario and debriefing session.”

The use of simulation is gaining wide-spread acceptance in health care education, and due to the emergence of simulation as a tool for clinical education, there is a lack of experienced clinicians who can integrate simulation into training programs at VA health care facilities.

“This training experience will impact our simulation endeavors as we continue to process all we learned,” added Ms. Larimer. ❖

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L-R: Ms. Martina Parauda, Director of New York Harbor Healthcare System; Dr. Haru Okuda, National Medical Director for VHA's SimLEARN program; Congressman Michael Grimm (R-New York); and Dr. Barry Goozner, Co-Chief, General Medicine and NY Harbor, cut the ribbon on the new Simulation Learning Center at the VA's Brooklyn Campus. (Photo by Jennifer Sammartino)

VA opens new simulation labs at New York campuses

By Jennifer Sammartino

Public Affairs Officer - VA New York Harbor Healthcare System - Brooklyn Campus

BROOKLYN, NY – In room 9-333 of the Brooklyn VA Medical Center, a patient lies on a table waiting for medical attention. For what ailment, he doesn't yet know. He'll have to wait for Dr. Satyajit Kosuri, the chief resident of medicine, to decide what will be wrong. If this sounds strange, there's a perfectly good explanation: like all patients, this one is special; however, he is not a Veteran ... he is a "Sim Vet."

Sim Vet is a mannequin that can talk, breathe and cry; he and others like him are used for training around the country, including at the Brooklyn Campus of the VA New York Harbor Healthcare System. Dr. Kosuri will program the mannequin to mimic a real-life medical emergency – such as a heart attack or stroke – for training purposes.

Ribbon-cutting ceremonies for two new simulation learning centers were held recently – April 4 for the Brooklyn campus center where Sim Vet "lives," and

April 12 for the Manhattan VA Medical Center. The mission of the simulation centers is to provide the opportunity for VA clinical staff, residents and students to develop skills through simulation to improve staff safety and Veteran care.

The simulation centers are each grant funded by the Office of Occupational Health and Safety, VACO, and used to mimic emergency situations for the purpose of multi-disciplinary training. Traditionally, medical education has relied on training with real patients in actual clinical settings. While hands-on experiential learning is indispensable, VA is dedicated to state-of-the-art learning that respects patient safety. The simulation centers represent examples of this commitment.

"A situation where a real patient is in cardiac distress is very challenging to every member of the clinical team that gathers to treat serious and life-threatening emergencies," said Dr. Steven Sedlis, chief of cardiology at the Manhattan Campus. He explained that simulation with a life-like, high-tech mannequin that simulates breathing and talking is a very effective training tool for relatively inexperienced physicians and medical students to use for playing out the options they must consider and actions they must take in a real-life emergency.



Dr. Satyajit Kosuri (far right), chief resident, medicine, leads a tour of the Simulation Learning Center following the ribbon cutting at the Brooklyn Campus. (Photo by Jennifer Sammartino)

The information about heart rate, temperature and other vital signs is provided by a facilitator who manipulates computer readings to simulate readings appropriate to a particular medical condition.

“The centers offer state-of-the-art video capability, ultrasound for the placement of central lines and other technology, enabling us to teach the latest techniques as they become available,” said Dr. Annemarie Leyden, chief, learning resources, VA New York Harbor, who coordinates

the lab’s activities at the Brooklyn Campus with Dr. Barry Goozner, co-chief of general internal medicine at the Brooklyn Campus, and Associate Program Director For Medicine Program, State University of New York Downstate. “There are so many possibilities.”

“Simulation is a wonderful resource that is being increasingly used for training both VA physicians and nurses, and medical students from the VA-affiliated New York University School of Medicine,” said

Dr. Brian S. Kaufman. He oversees the Manhattan center along with Dr. Kevin J. Felner and their colleagues from the Division of Critical Care.

“The lab’s videotaping capability allows us to review and critique the techniques once the training is complete,” said Dr. Goozner, adding that simulation training began about seven years ago at VA’s Brooklyn campus, and that the new high-tech lab is one of very few in use at hospitals in the New York City region. ❖

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REdI is coming soon.



Bringing simulation back to life

By Denise R. Cochran

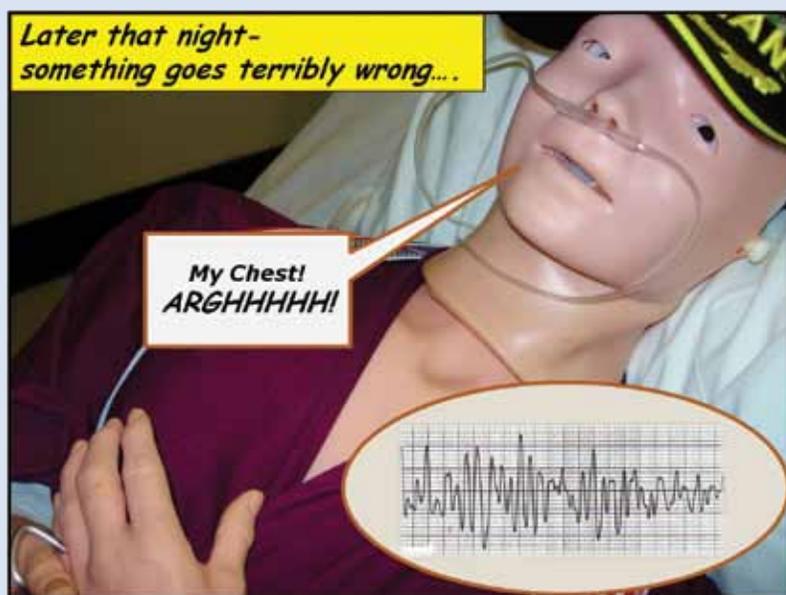
Coordinator for Interdisciplinary Simulation Education Center;

lead Mock Code Drill Instructor

Malcolm Randall VA Medical Center



In this image or panel, "Harry" is admitted to the medical center. Illustrations for a booklet series are in the form of panels designed in the style of a comic book to illustrate a variety of medical training scenarios.



GAINESVILLE, FL – At first glance, he's just a simple mannequin, made of plastic, foam and paint. However, once he dons his Vietnam Veteran ball cap, VA pajamas, as well as red-white-and-blue suspenders, he becomes Heart Attack Harry, SuperVet, dying several times a day in order to help bring life to others by improving emergency response all around the Malcolm Randall VA Medical Center.

Heart Attack Harry is a vital part of the North Florida/South Georgia (NF/SG) Veterans Health System Interdisciplinary Simulation Education Center (ISEC). Here, medical providers come together to advance their clinical skills, foster critical thinking and nurture interdisciplinary teamwork.

With the mock code drill program, Heart Attack Harry regularly appears on inpatient and outpatient care units and challenges staff to respond to a simulated cardiac arrest scenario. Staff members are expected to call a code blue, initiate CPR and attempt to resuscitate Harry using their crash cart and defibrillators or automatic external defibrillators. Drill performance is rated by a drill instructor using an objective measurement tool to score their response for specific actions needed to be completed within 4 minutes. Participants then evaluate their own performance through a facilitated debriefing session. The drills are designed to give staff an opportunity to practice and apply basic life support and advanced cardiac life support (ACLS) skills and to develop effective teamwork and communications while gaining experience with equipment and supplies commonly used in emergent situations.

Mock code drills have also been instrumental in assessing system processes in differing patient care environments during medical emergencies. Evaluation of code drills

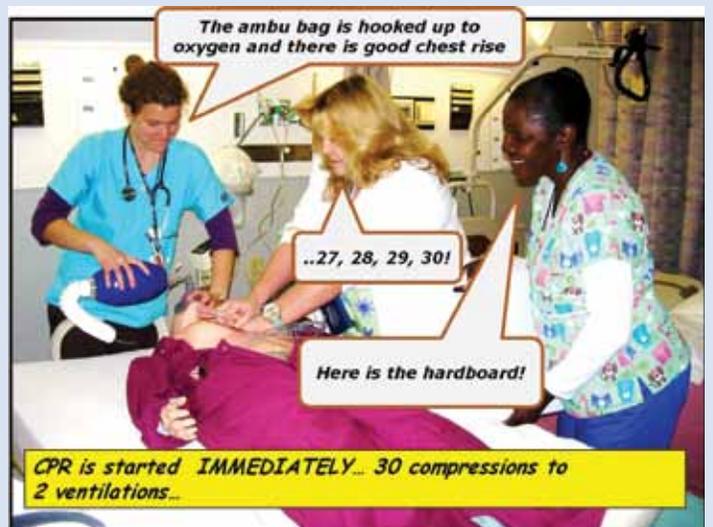
performed in patient care environments (*in situ*) have helped to identify problems and barriers that adversely affect code performance and outcomes. Issues impacted as a result include the availability of needed equipment and supplies, arrangement of furniture in patient care areas and issues of patient transport and communication systems.

For example, results gathered from these training exercises led to the redesign of all the crash carts in the system. Once new design models and system processes were proposed, piloting and testing was completed through simulation code drills. Staff education on the final product was further enhanced through hands-on simulation-based training in patient care areas and in ACLS code training in ISEC.

*Evaluation of code drills performed in patient care environments (*in situ*) have helped to identify problems and barriers that adversely affect code performance and outcomes.*

Harry has also gained a kind of celebrity status. Through some creative efforts, he now stars in his own training booklet series, *The Nine Lives of Heart Attack Harry*. Designed in the style of a comic book, episode one portrays Harry being admitted to the Malcom Randall VA Medical Center for chest pain, which quickly evolves into a heart attack. The booklet features Harry as he moves from the emergency department to a medical surgical unit, and finally to the intensive care unit, after surviving a successful resuscitation. It is used as a training book to illustrate how to call for a code, perform CPR and use the defibrillator to resuscitate a patient, while adding some fun and novelty to what is normally perceived as stressful training.

With a little bit of imagination and a lot of serious teamwork, Heart Attack Harry seems to have made an impact on improving patient care for all Veterans at the Malcom Randall VA Medical



Center. Many believe there is much that can be learned using a simple piece of plastic, especially when you bring it to life in the eyes of staff, challenging them to continue to become more proficient and efficient in addressing emergency situations. ❖

In the world of simulation, Minnesota hospital offers simulation on the go

By William Gaught
SimLEARN Staff

MINNEAPOLIS, MN – Need a way to bring simulation training to staff members when cost, time and location are issues? Children's Hospital and Clinics of Minnesota is addressing this issue with the Mobile Simulation Center.

It is a flexible, multifunctional vehicle capable of taking simulation training directly to health care providers across the Midwest. The mobile center can be configured for hospital environments like an emergency room, delivery room or intensive care room, and is equipped with cameras and microphones that allow training scenarios to be recorded and played back during debriefings.

"The Mobile Simulation Center is an effective tool that allows us to share our pediatric expertise around the region," said Phil Kibort, MD, Chief Medical Officer. "The ability to respond to a child in a medical crisis is an essential element of providing high-quality, safe pediatric care for children."

Developed in 2006 with a donation from Kohl's Department Stores, the mobile simulation center makes it possible to take simulation training to hospitals or clinics for pediatric and neonatal emergency care training.

A typical day-long simulation program includes two half-day sessions with two to three different scenarios during each session. This setup provides a risk-free environment for multi-disciplinary teams of physicians, registered nurses, emergency medical technicians,

respiratory therapists, lab technicians, radiologists or pharmacy staff to practice situations similar to ones they might experience in their own facilities.

Currently, the program offers courses such as Simulated Pediatric Resuscitation Team Training, which includes, "*Putting PALS and Crisis Resource Management into practice.*" This class creates realistic and dynamic pediatric emergency situations that require health care personnel to apply their knowledge of Pediatric Advanced Life Support (PALS) guidelines and utilize technical and clinical decision-making skills in their response as a team.

The Simulated Pediatric Rapid Response Team Training course offers an "*Early recognition of a child's deteriorating condition*" class. This class creates realistic and dynamic pediatric emergency situations that require health care personnel to perform pediatric assessments and apply initial life support interventions. Participants will apply their knowledge of pediatric assessment and response in order to stabilize pediatric patients until appropriate help can be summoned.

If mobile simulation is an idea for your facility, more information about the capabilities of the Mobile Simulation Center and training programs it provides is available at <http://www.childrensmn.org/Web/simbus/113557.asp>. ❖

Mobile simulation in VA

ANN ARBOR, MI – The VA National Center for Patient Safety (NCPS) here is also using mobile simulation to conduct training and save travel costs. Here are a few facts:

- NCPS has conducted portable, point-of-care, high-fidelity simulation at VA facilities (both large and small) to enable participants to practice teamwork and communication since January 2010.
- The simulation-based curriculum is founded on the principles and techniques of *Crew Resource Management* which originated in the aviation industry.
- Four high-fidelity simulators are shipped



(primarily by ground transport) in “heavy duty” cases to a VA facility that has enrolled in any one of three educational programs available at NCPS: *Medical Team Training; Nurse Crew Resource Management; and Patient Safety Curriculum/Graduate Medical Education.*

- Experienced instructors facilitate knowledge-building workshops that are followed by simulation-based experiential learning.

- During the last year, 18 workshops provided training for 1,276 VA nurses, physicians, allied health providers and residents.
- Increasingly, sites participating include community based outpatient clinics, as well as medical centers. It is believed this trend will likely continue as teamwork and communication training expands throughout the entire VA organization. ❖

VA-Army agreement to help transform health care for patients

By Gerald Sonnenberg, SimLEARN Staff and Kristen McCullough, Dept. of the Army, PEO STRI

WASHINGTON – The VA and Department of the Army are working together to provide cutting-edge simulation-based training for medical staff to enhance the quality of patient care at VA medical facilities across the nation.

“This agreement between the VA and the U.S. Army strengthens an important relationship that helps VA deliver better health care and value for all of our nation’s Veterans. It also allows VA to make the best and most cost-effective purchases of simulation equipment, while also moving us toward system-wide standardized simulation training,” said Dr. Robert A. Petzel, VA Under Secretary for Health.

The \$5 million agreement utilizes the expertise of the Army’s Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) to provide support and services for simulation equipment and supplies acquisition in support of VA’s Simulation Learning, Education and Research Network (SimLEARN) Program.

The SimLEARN Program was established by VA to develop national simulation-based clinical training throughout its more than 150 medical centers around the nation. As the Army’s acquisition agency for simulation and training devices, PEO STRI has

unique expertise in the area of acquisition services for medical instruction and related program management services. PEO STRI has established equipment and technology requirements to support its nationally recognized simulation-based medical training programs.

“This agreement certainly joins our active and retired service men and women in a way they’ve never been connected before,” Dr. James T. Blake, the Program Executive Officer for PEO STRI, said. “The cutting-edge modeling and simulation expertise that our combat medics and combat lifesavers receive for treating

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active duty Soldiers will be leveraged for supporting the training efforts of medical personnel who care for our Veterans. It’s truly a win-win situation for our nation’s heroes.”

About PEO STRI: Headquartered in Orlando, FL, PEO STRI provides interoperable training and testing solutions and program management, along with life-cycle support for the Army’s most advanced training systems around the world. ❖

Competencies for interprofessional collaboration; A framework for assessment of simulation exercises

By Dr. Kelly Goudreau, DSN, RN, ACNS-BC
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PORTLAND, OR – Practice to achieve competence is a core tenet of simulation education. On Feb. 16 and 17, the Health Resources and Services Administration (HRSA) shared a draft document called *Core Competencies for Interprofessional Collaborative Practice* at an invitation-only event in Washington, DC. HRSA is the primary Federal agency for improving



access to health care services for people who are uninsured, isolated or medically vulnerable.

Attendees included a host of people from both educational programs and clinical practice, including representatives from

the Centers for Medicare and Medicaid Services, The Joint Commission, numerous professional organizations, various accreditation agencies, certification agencies, and the VA. HRSA hosted the meeting to garner first impressions about the document from participants, identify gaps in the competencies, suggest ways in which to bridge those gaps, and identify ways in which the competencies could be fully integrated into the context of both current practice and educational settings. Initially, VISN 20 will be using the *Interprofessional Collaborative Practice* competencies as an evaluation framework for the

simulation program across the VISN.

An expert panel convened by the Interprofessional Education Collaborative (IPEC) created the four core competency domains, through a process of evidence-based review. They are:

Values/ethics for interprofessional practice – Work with individuals of other professions to maintain a climate of mutual respect and shared values.

Roles/responsibilities for collaborative practice – Use the knowledge of one's own role and the roles of other professions to appropriately assess and address the health care needs of the patients and populations served.

Interprofessional communication – Communicate with patients, families, communities and other health professionals in a responsive and responsible manner that supports a team approach to maintaining health and treatment of disease.

Interprofessional teamwork and team-based care – Apply relationship-building values and the principles of team dynamics to effectively perform in different team roles and to plan and deliver patient/population centered care that is safe, timely, efficient, effective and equitable.

These four domains have specific expectations within them that are defined more clearly and in measurable terms. However, can these competencies be used within current simulation exercises and scenarios to assess and frame the concept of teamwork and collaboration?

The official publication of the competencies was published in May. To download the document, visit https://www.aamc.org/download/186750/data/core_competencies.pdf. Clinical simulationists and other practitioners are encouraged to explore how these competencies can fit within local programs and efforts at interprofessional education in a practicing simulation environment. ❖



SimLEARN Newsletter is a product of the Veterans Health Administration National SimLEARN Center. The program's operations and management is conducted by the 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.