



Under Secretary for Health announces 2013 Excellence Awards

*By Gerald Sonnenberg
EES Marketing and Communication*

WASHINGTON, DC – The Veterans Health Administration (VHA) recently announced the recipients of the VA Under Secretary for Health’s Awards for Excellence in Clinical Simulation Training, Education and Research. The awards recognize clinical leaders supporting and advancing VHA’s strategic plan for clinical simulation.

The recipient of the Excellence in Clinical Simulation Training, Education and Research Practice Award is Richard Fidler, Ph.D.(c), MBA, MSN, CRNA, ACNP.

Jonathan Gardner, MPA, FACHE, is the recipient of the Clinical Simulation Training, Education and Research Executive Leadership Award.

Fidler is the director, Healthcare Simulation Program, at the San Francisco VA Medical Center (SfVAMC) within the Veterans Integrated Service Network (VISN) 21. He is also a Ph.D. candidate in the top nursing program at the University of California, San Francisco.

Relying on limited funding, his efforts are the primary force behind the establishment of the SfVAMC simulation center over the last five years. Fidler led the creation of a cadre of simulation specialists from multiple disciplines to conduct the training of other clinicians. This training resulted in nearly 3,000 participants over the last year training in a variety of skills, from critical care and perioperative simulations, to disaster planning and evacuation scenarios.

In addition to his expertise with simulation, Fidler’s role is in anesthesia clinical practice in the operating room, recovery room and the intensive care units.

“The contributions Mr. Fidler makes, both clinically and through simulation, are tangible at the SfVAMC, VISN 21 and VHA levels,” said Dr. Art Wallace, chief of anesthesiology service at the SfVAMC.

Gardner is the director of the Southern Arizona

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'Guardian angels:' VHA team aids fallen coworker

*By Malcolm Klein, MD
Chief, Anesthesia Service
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TAMPA, FL – Each time I work in the electrophysiology lab with Heidi Cascio, I find it hard to imagine that she was resuscitated from cardiac arrest just a few months ago. Heidi, a certified cardiovascular technologist at the James A. Haley Veterans' Hospital here, last remembers getting ready

for work. She doesn't remember walking in to work or losing consciousness as she collapsed in the hospital parking lot. Her collapse was immediately noticed by coworkers, who ran to activate the code team.

I was running late that morning, and as I approached the door leading in from the parking lot, I was met by a number of people who came running in to call 123 (a hospital emergency number) from the hallway phone. I asked what was happening.

"Someone collapsed outside," I was told. "Looks like she

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VA Health Care System (SAVAHCS) in Tucson, AZ. As director, his duties include the overall organization and operation of a highly-affiliated, 283-bed, tertiary-care teaching medical center, as well as multiple community-based clinics throughout southern Arizona.

Gardner is considered a champion of simulation, as well as someone who values the outcomes that result from the training that occur in the simulation lab. His efforts allowed staff to become proficient at their clinical, leadership and interpersonal skills by diminishing the risk of error and enhancing the care of Veterans by training competent staff.

When the education director presented the concepts and proven outcomes related to simulation training as the framework for the SAVAHCS Clinical Simulation Center, he readily supported the proposal to expand from a one-room simulation lab to a multi-disciplinary simulation center. This center became a "showcase" for the medical center and VISN 18, and the training resulted in a reduction in blood stream infections related to central line insertion, as well as a reduction in ventilator-associated pneumonia related to out-of-operating-room intubation.

Gardner created an organizational climate that views simulation as an integral component of the training experience. His personal contributions resulted in a program that is well known throughout VHA. ❖

Other nominees for the Excellence in Clinical Simulation Training, Education and Research Practice Award were:

- Dr. David Adriansen, VISN 23 Simulation Program Manager, Minneapolis VAHCS, MN
- Misty Bennett, Clinical Nurse Leader James H. Quillen VAMC, TN
- James Dresser, VISN 17 Workforce Development Manager Arlington TX
- Dr. B. Price Kerfoot, Staff Surgeon VA Boston Healthcare System, MA
- Regina Knowles, Clinical Educator James H. Quillen VAMC, TN
- Margaret Kohn, Nurse Practitioner Greater Los Angeles VAHCS, CA
- Dr. Joseph Leung, Chief, General Internal Medicine Sacramento VAMC, CA
- Sherri Porter, RN Clinical Simulation Coordinator Southern Arizona VAHCS, AZ
- Dr. Jerold Saef, Assistant Chief of Cardiology Bay Pines VAHCS, FL
- LeAnn Schlamb, Nurse Educator Simulation Cincinnati VAMC, OH
- Janet Sprehe, Clinical Nurse Educator James A. Haley VAMC, FL
- Dr. Sharon Stanke, Nursing Instructor Minneapolis VAHCS, MN

Other nominees for the Clinical Simulation Training, Education and Research Executive Leadership Award were:

- Charlene Ehret, Medical Center Director James H. Quillen VAMC, TN
- Janet Murphy, Network Director, VISN 23, Eagan, MN
- Patrick Sullivan, Medical Center Director Captain James A. Lovell Federal Health Care Center, IL



Heidi Cascio works in the electrophysiology operating room checking on the position of catheters in preparation for an atrial fibrillation ablation. (VA photo by Ebby Talebi)

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just had a seizure.” For just a moment, I hesitated. I was late, and a seizure was something that can be easily handled by anyone with basic lifesaving skills. I battled a vague sense of discomfort as I considered hurrying in to the operating room, where patients were waiting for surgery. I thought I had best take a look. I hurried outside a short distance to where a young lady lay on the ground, surrounded by a gathering crowd.

I checked for a pulse and there was none. I instructed the closest bystander to commence chest compressions, and I took up a kneeling position at the head of the patient. Someone handed me an “Ambu” bag, or a manual breathing unit. I provided two breaths for every 30 chest compressions, in accordance with American Heart Association (AHA) guidelines. As an advanced cardiovascular life support (ACLS) instructor and chair of the cardiopulmonary resuscitation (CPR) committee, I was acutely aware of the necessity of high-quality chest compressions as the cornerstone of resuscitation.

“Push hard; push fast; at least two inches; at least 100 per minute. Minimize interruptions.” Simple instructions, but they are hard to stick to in the midst of the seeming chaos surrounding a cardiac arrest.

During a cardiac arrest, all blood flow ceases, including to the heart and brain. When blood flow to the brain is interrupted, we call it a stroke. When blood flow to the heart is interrupted, we call it a heart attack. When you think of a patient in cardiac arrest as experiencing both a heart attack

and stroke at the same time, you realize how critical it is to get blood flow back to these two vital organs. Every time you compress the chest, a little blood and oxygen flows to the heart and brain, and each moment you stop, blood and oxygen flow to the heart and brain stops. When you think of a cardiac arrest this way, you realize how critical it is to maintain chest compressions to keep blood flowing to these vital organs.

Studies have shown the application of an automated external defibrillator (AED) pad and initial rhythm analysis takes about 50 seconds. That’s almost a minute during which the heart and brain are being starved of oxygen. As the AED analyzed the rhythm, we stopped compressions, then resumed them immediately after the analysis was completed and the AED resumed charging. Compressing the chest as the AED charges is not a risk as the AED or defibrillator cannot shock as it charges, and every second of inactivity robs the body of precious oxygen.

The code team and crash cart arrived, and we started an IV and administered epinephrine.

After about ten minutes of chest compressions and multiple shocks, someone said the victim is an employee in the cardiac catheterization lab near my office. For the first time, I looked at her face. When I recognized Heidi, I almost lost it. I see her almost every day, a keen spirit and vivacious bundle of energy now staring blankly at me with cold, lifeless eyes.

I focused on the task at hand, listening to the compressor counting out load to the beat of the Bee-Gee’s “Staying Alive,” twenty seven, twenty eight, twenty nine, thirty, then two breaths. After twenty minutes of resuscitation, following the “umpteenth” shock, she started moving; followed by regular breathing. By that time, we lifted her onto a stretcher and transported her to the ER where a team of cardiologists was waiting. Heidi recalls recognizing her supervisor, and saying, “Don’t let me die!” Fortunately, we were able to accommodate her request. Early the next day, she was discharged and sent home.

Now back to work full time, Heidi still remembers nothing about that day, but she is thankful to be alive.

“Dr. Klein is a very dear person to me,” said Heidi. “I thank him each day for giving me another day ... I would

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Expanding the role of simulation: Supporting evidence-based acquisition decisions

Jamie Estock

Human Factors Scientist and Patient Safety Research Fellow
Pittsburgh VA Medical Center

PITTSBURGH, PA – An effort is taking place to establish a simulation-based human factors validation program at the Veterans Health Administration (VHA). The program uses high-fidelity, human-in-the-loop simulation to measure how the design of medical devices, equipment and supplies affects provider performance and patient safety. The goal of the program is to provide evidence to support the selection and implementation of safe and user-friendly medical products throughout VHA.

Human factors methods can contribute throughout the design lifecycle of a medical product (*See Figure 1*), but there are two human factor methods that leverage human-in-the-loop simulation—usability testing and validation testing (FDA, 2011).

Usability testing occurs earlier in the design process (i.e., prototype phase) and is intended to inform product development. Usability testing is a formative evaluation to support design trade-off decisions. Data collected during usability tests supports designers and manufactures of medical devices, equipment and supplies.

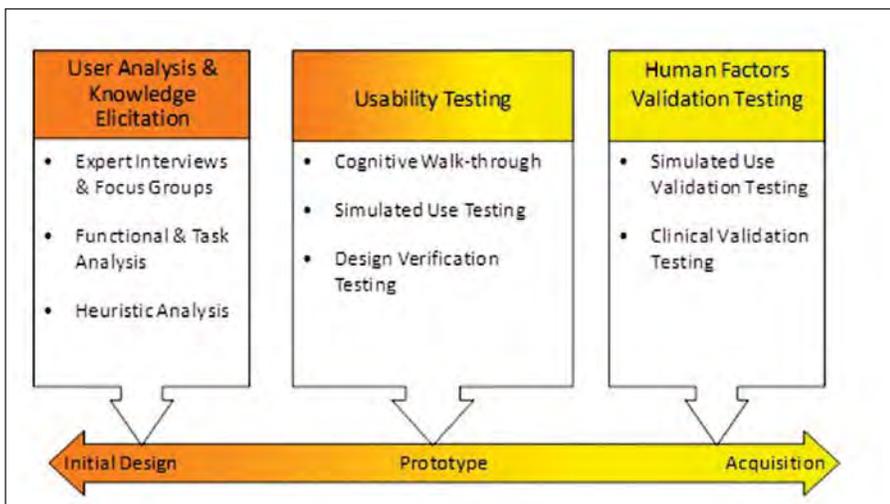


Figure 1. Human factors methods across the design lifecycle.

Human factors validation testing occurs immediately prior to acquisition or deployment. This testing is a summative evaluation that informs product selection and implementation. Data collected during validation tests support the purchasers or consumers of the medical product. Simulation provides an ideal test-bed for human factors validation testing because it permits the measurement of design effects on: (1) provider performance of real-world tasks in a real-world environment, and (2) patient outcomes within a no-consequence environment. This allows purchasers or consumers, such as VHA, to know how the product will affect providers and patients before deciding to buy it. For example, a recent human factors validation test compared automated external defibrillators (AEDs) from two different manufacturers (Percival, Pearson, Jones, Wiklins, & Caird, 2012). They measured the effects of different AED designs on user performance. The results identified specific design flaws with both devices, but clearly revealed that one AED outperformed the other in time to first shock.

The application of human factors engineering principles in the evaluation and procurement of medical information systems, medical devices and health care products has been identified by VHA's National Center for Patient Safety as a high-priority topic. Establishing a simulation-based human factors validation program can provide VHA with empirical data to support acquisition and implementation decisions that improve provider performance, and ensure the safety of Veterans. ❖

References

Food and Drug Administration (June, 2011). Draft guidance for industry and FDA staff: Applying human factors and usability engineering to optimize medical device design. Click [here](#) for more information.

Percival, N.B., Pearson, A., Jones, J., Wiklins, M., & Caird, J.K. (2012). Ease of use of automated external de.brillators (AED's) by older adults. *Proceedings of the Human Factors and Ergonomics Society 56th Annual Meeting*, 906-910. Santa Monica, CA: Human Factors and Ergonomics Society.

Cutting-edge technology provides VA staff with state-of-the-art training

By Angela Smith
Public Affairs Officer
John J. Pershing VA Medical Center

POPLAR BLUFF, MO – Quality medical centers must continually train their clinical staffs by teaching new techniques and refreshing their knowledge of established procedures. This task is especially important to the staff at the John J. Pershing VA Medical Center, with the distinctive mission of caring for America’s Veteran heroes.

The “SimMan®” human patient simulator is a state-of-the-art tool that allows staff to train for various medical situations. The SimMan® 3G was specially adapted for the nationwide VA health care system to be compatible with VA’s bedside patient monitors currently in use. This capability is only available in the VA health care system.

“This gives us the ability to train our staff using more realistic patient settings, which allows us to continually

improve staff competency and patient care outcomes,” said Rhonda Acre, Poplar Bluff VA’s Veteran health education coordinator.

Their mannequin - “JP,” as he’s known - is one of the newest simulation tools in the region, and is programmable to run random—or very specific—patient scenarios for staff skills practice and assessment.

“We can make him respond physically to treatments that trainees give him, or we can run a pre-programmed situation. Staff members ‘treat’ him according to symptoms he presents. They can intubate him, do CPR on him, give him medicines, note and respond to his heart rhythm or react to a drop in his blood pressure,” said Acre. “There aren’t many skills they couldn’t practice on him, and this helps them be so well prepared that their reactions in real-life situations are practically instinctive. This is an amazing way for technology to help us provide the very best care for our Veterans.”

A growing body of evidence supports the effectiveness of clinical simulation in improving the proficiency and performance of health care providers and improving patient safety. Simulation strengthens confidence and promotes competence by providing a safe and supportive environment for mastering skills, practicing protocols and applying critical decision-making skills.

The John J. Pershing VA Medical Center participates in SimLEARN’s Resuscitation Education Initiative (REdI), which is the VHA’s national program to standardize, document, track and monitor training in Advanced Cardiac Life Support, Basic Life Support and Advanced Trauma Life Support. REdI provides train-the-trainer support using American Heart Association guidelines to provide training of VA medical center clinical and non-clinical employees. ❖



Pictured above, the “Team JP” training group with the SimMan®, JP: Bailey Wells, Rhonda Acre, Brad Davis, Lisa Markham, Kristie Harmon and Libby Johnson. (VA photo)

Taking first steps on the simulation journey

By Jo-Anne Suffoletto, MD, MSc
Associate Chief of Staff, Education and Innovative Learning
and Paul Rogers, MD
Vice President, Critical Care Service Line
VA Pittsburgh Healthcare System

PITTSBURGH, PA – Veterans Health Administration (VHA) facilities nationwide serve Veterans in a variety of settings. In the same way that one particular service may not provide all of a Veteran’s medical needs, one roadmap of how to start the simulation journey may not work for every facility.

There are some general points of consideration when starting the simulation journey that can be tailored to fit a facility’s current situation. During a recent national Simulation Community of Practice (CoP) call, a discussion was held around key steps facilities have taken to move forward along the simulation journey.

Perform a local needs assessment

A needs assessment surveys local stakeholders. This survey asks questions of faculty, leadership and staff whose answers may give some valuable information:

- What types of faculty use simulation?
- Who will be the learners?

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like to take this opportunity to thank each and every person that was involved in my situation. To my cath lab family, thank you all from the bottom of my heart. You guys are the best. I truly love you all.”

As for me, I feel an immense sense of accomplishment at Heidi’s survival. I am also much more passionate about my role as an ACLS instructor, as well as the need to stick to the basics of CPR. Heidi and I exchange hugs each time we see each other. She also gave me a guardian angel pin I wear every day. When I look at the pin, I am reminded of how a sense of punctuality almost destroyed two lives. If I had continued rushing in to work, Heidi may not have survived. ❖

- How does the faculty currently use simulation?
- What types of simulation are they using to teach at present? (e.g. procedures, communication skills, interdisciplinary team building)
- What does the faculty want to teach using simulation in order of priority?
- What are the top three local quality improvement/patient safety hot topics for your facility? Once identified, where are the opportunities to improve patient safety through simulation training?
- How do the current national simulation initiatives and your facility’s particular strengths/interests align?

The answers the simulation coordinator receives help determine the focus of the simulation program out of the starting gate as they begin to align faculty strengths/interests with local resources and national initiatives.

Create a simulation-ready environment

- Do you have identi.ed simulation space within your facility? Is it stand-alone space? What are the pros and cons of your facility? What is feasible with the resources you have?

Identify and engage local stakeholders. Facilities do this

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REdI Program welcomes new specialist

Susie Martenson recently joined SimLEARN’s Resuscitation Education Initiative (REdI) program as a health education specialist. Before EES, she worked as a national ski patroller, a nationally registered emergency medical technician (EMT) and paramedic, as well as a registered nurse among other positions. She has 35 years experience as an advanced cardiac life support instructor. Martenson is board certified in ambulatory care, flight nursing, emergency nursing, and is a nationally registered paramedic, and a licensed Florida risk manager. In addition to two degrees, she is an adjunct faculty member of Daytona Beach State College, teaching in their nursing and paramedic programs. ❖

Women's health mini-residency

By David Adriansen, Ed.D., NREMT
VISN 23 Simulation Program Manager
Minneapolis VA Health Care System

MINNEAPOLIS – Veterans Integrated Service Network (VISN) 23 recently received a grant to support a Women's Health Mini-Residency for Primary Care Nurses event. It was held May 7-9 at the Minneapolis VA Simulation Center.

Approximately 33 registered nurses from VISN 23 hospitals and community-based outpatient clinics attended essential training and unique health care screening and care classes. This included breast, pelvic and transgender examinations and care, along with military sexual trauma awareness and interview training.



Rebecca Stinson, M.Ed., a psychology intern at the Minneapolis VA, addresses a group of nurses attending a class during the women's health mini residency. (VA photo by April Eilers)

Simulation equipment, including pelvic and breast exam trainers, were used to support the course during breakout skills sessions. ❖

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in different ways: form a simulation steering committee with representatives across service lines and disciplines; reach out for collaborations with patient safety leaders, biomedical engineering, logistics and the Office of Information and Technology; and host a simulation open house for hospital staff and leaders to attend.

Create a safe learning environment

On the positive side, learners typically find simulation to be interactive, engaging, problem-based and hands on. Simulation can also be a scary learning experience for them. Learners at all levels, from the first year nursing student to the practicing anesthesiologist, can feel exposed and anxious when participating in simulation training experiences with peers and teachers. Special attention should be paid at the beginning of each class to create a psychologically safe learning environment with ground rules for behavior and clear delineations between formative training and testing/competency assessment. It is incredibly unsafe for learners to enter into a training session thinking they are there to learn, when in reality, they are being tested.

Nurture and develop your local simulation faculty/staff

Teaching can be a daunting task. Many faculty members

in medicine have no formal training as teachers other than what is gleaned from mentors and personal experience. As a result, much experiential learning across a career can seem haphazard rather than thoughtfully planned and executed.

Help your faculty learn/enhance their teaching skills by hosting faculty development sessions on specific topics like, "How to write educational goals and objectives," "Debriefing 101" and "Review of adult learning principles."

Simulation offers opportunities to provide some structure to experiential learning, so long as faculty are nurtured and given the teaching skills they need to succeed. The most important task the teacher faces when embarking on a teaching assignment is creating learning objectives that are defined, specific and measurable.

Share information locally, regionally, and nationally

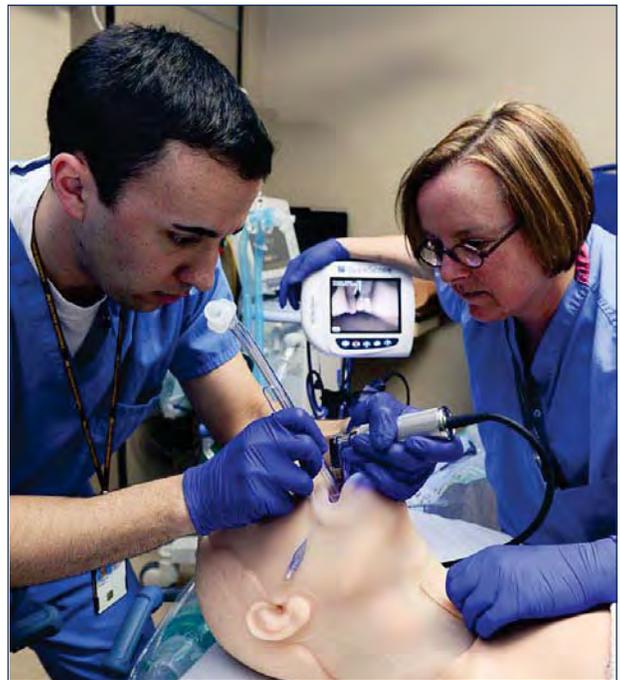
On the Simulation CoP call several participants gave examples of how they have managed to keep local and regional stakeholders informed about their simulation programs. Ideas shared with the group included creation of a Sharepoint and websites, local steering committee meetings, VISN-wide simulation conference calls, hosting regional faculty development conferences, email distribution lists and, of course, ongoing participation on the national Simulation CoP calls. ❖

Minneapolis VA completes video-assisted laryngoscopy research

By David Adriansen, Ed.D., NREMT
VISN 23 Simulation Program Manager
Minneapolis VA Health Care System

MINNEAPOLIS – The Veterans Integrated Service Network (VISN) 23 simulation program recently received video laryngoscopy trainer blades for its nine VA medical centers. The trainer attaches to existing video laryngoscopy equipment, allowing students to intubate under normal “direct-look” conditions, while a preceptor observes what the student is viewing on an attached video laryngoscope screen.

The clinical education program for the University of Minnesota School of Anesthesia is located at the Minneapolis VA. Student Registered Nurse Anesthetists (SRNA) complete their Certified Registered Nurse Anesthetist (CRNA) licensure while enrolled in a doctor of nursing practice program. ❖



Josh Cochran, SRNA, recently completed his project research. His laryngoscopy acquisition skills were reinforced using the video laryngoscopy trainer. He is pictured here with Dr. Kathy White, CRNA, using the trainer. (VA photo by April Eilers)

Special visitor

Journalist Matt Power spent several hours with SimLEARN staff at the VHA National Simulation Center participating in training scenarios. Power was visiting Orlando-area organizations specializing in simulation for a story in a worldwide technical publication. (Photo below) Power (left) works with



SimLEARN staff member Scott Mitchell, performing a laparoscopic cholecystectomy surgery. (Above) Power (right) is intubating a mannequin with Dr. Haru Okuda, SimLEARN national medical director. (VA photos by Greg Maida)

SimLEARN Newsletter is a product of the Veterans Health Administration 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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