



# Navy and Marine Corps Medical News



*A Public Affairs Publication of the Bureau of Medicine and Surgery*

**December 2010**

**MEDNEWS Items of Interest:**

**December marks “Navy Medicine’s Advancements in Medical Technology”** - During this month, Navy Medicine highlights military medical technological advancements that have a direct impact on the quality, accessibility, and sustainability of care Navy Medicine provides to Sailors, Marines, and their families.

**MHS Conference** will be held Jan. 24-27 at the National Gaylord Hotel, National Harbor, Md.

**BUMED Sailor of the Year** - HM1 Tyrone Hodges was selected as BUMED SOY. Hodges will compete in the VCNO SOY competition next year.

**Holiday message from the troops** - Defense Media Activity created a holiday message from over 40 commands to share the holiday spirit. See the video: <http://go.usa.gov/1ua>.

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***Did You Know...***

**Telepharmacy Robotic Medication Dispensing Unit (TRMDU)** is a two-way communication software that enables a health-care professional to remotely manage prescriptions stored and released by the patient-operated delivery unit. It maintains one electronic medication administration record in real time.

## New Naval Hospital on Cutting Edge of Technology for Next 50 Years

*By Lance Cpl. John Robbart III, Marine Corps Base Camp Pendleton*

**MARINE CORPS BASE CAMP PENDLETON, Calif.** — Marine and Navy leaders broke ground on the 70-acre construction site for the new Camp Pendleton Naval Hospital, Dec. 2.

The four-level, 500,000 square foot hospital will be located near the main gate and will have an expected staff of more than 1,100.

“The new Naval Hospital is keeping on the cutting edge of technology for at least 50 years to come,” said Col. Nicholas F. Marano, commanding officer, Marine Corps Base Camp Pendleton.

The new hospital is funded under the Economic Recovery Act, created by President Obama. The \$394 million contract is awarded to Clark/McCarthy,

a joint venture by Naval Facilities Engineering Command Southwest and is all a part of the base’s project to improve quality of life for its Marines and Sailors.

“As you drive around the base you can still see buildings from the World War II era,” said Marano in his opening remarks at the groundbreaking ceremony. “Thankfully there are fewer and fewer every day, as they are being replaced with more efficient, state of the art structures, with quality of life in mind. The hospital plays a huge role in that improvement for our Marines and Sailors.”

The services provided by the new hospital will include inpatient medical facilities, ancillary departments, emergency care, primary care, specialty care clinics, support spaces and facilities for

*See HOSPITAL, Page 3*



**MARINE CORPS BASE CAMP PENDLETON, Calif.** — Military and civilian personnel involved with the Naval Hospital Camp Pendleton replacement hospital construction project break ground to officially begin construction on the facility, Dec 2. The new 500,000-square foot, multi-level facility will replace the current 37-year old hospital. (U.S. Navy photo by Mass Communication Specialist 1st Class Michael R. McCormick/Released)

## Navy Medicine's Advancements in Medical Technology

Wherever I go people often ask me why I'm so focused and committed to research and development when we have an ongoing two front war and countless other priorities. It is because the medical technology breakthroughs that advance the quality of care we provide our Sailors and Marines and their families originate from the research development labs and schools. We must continue to support innovative medical technology-focused research so we keep pace or stay ahead of the technology curve. Science and technology, research, and development are the bases from which most of our innovations come. We anticipate further technological advancements in all areas of medicine in the coming years.

This month I'd like to highlight some of those military medicine technological advancements that are having a direct impact on the quality, accessibility and sustainability of care we provide our beneficiaries.

The first is advancements in electronic health records (EHR) which will leverage care and also the mobility of the military health system. A more advanced EHR that uses cutting edge information technology and security

will help as men and women move in and out of combat zones or relocate so that a complete EHR will follow them regardless of location. The EHR will include immunizations, past medical history, current medications, and allergies to those medications to create a more efficient system in how we handle medical care, and the accuracy and quality of that care.

In partnership with the DoD's Telemedicine and Advanced Technology Research Center, we are studying the potential benefits of a Telepharmacy Robotic Medication Dispensing Unit (TRMDU) for our returning service members who suffer from TBI or other post-traumatic stress. The medication

***“We must continue to support innovative medical technology-focused research so we keep pace or stay ahead of the technology curve.”***

delivery unit has two-way communication software that enables a health care professional to remotely manage prescriptions stored and released by the patient-operated delivery unit. Not only would this unit leverage and extend the clinical pharmacy capacity, it would maintain one electronic medication administration record in real time.

With care increasing at transitional housing, outpatient, and in-home settings, the TRMDU system is expected to give medical providers the ability to remotely deliver, adjust, and monitor a patient's drug therapy from the battlefield, to a combat support hospital, to an outpatient center, and ultimately to a home setting.

Another cutting edge technology coming to fruition includes advancements in hand, extremity, and even face transplantation and also new break-



Vice Adm. Adam M. Robinson, Jr.,  
U.S. Navy Surgeon General

throughs in retinal and visual rehabilitation. There have also been electrical and physiologic advancements in helping to restore vision. For TBI care, we are using the virtual environment to challenge the brain through specialized video games and other computer-based programs that provide visual, spatial, language and coordination tasks.

Lastly, we are in the lead in developing a more agile next generation DNA vaccine technology against deadly diseases like malaria, dengue fever, and scrub typhus as well bio-engineered weapons. This new generation of vaccines is expected to be safer, cheaper, more stable, easier to administer, with fewer side effects, and more effective against a wider variety of diseases.

All of these advancements in care started with an idea and translated into programs and initiatives to help better serve our wounded warriors, our deployed Sailors and Marines, and their families. You can be confident we will continue to focus on using technology to our advantage to maintain the highest quality across the continuum of care. It is my honor to represent you as your Surgeon General. Thank you for everything you do, but most of all thank you for your service.



**Navy and Marine Corps  
Medical News**



**Navy Bureau of Medicine and Surgery**

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# Naval Hospital Bremerton Opens New Simulation Center

By Douglas H Stutz, Naval Hospital Bremerton  
Public Affairs

BREMERTON, Wash.— A ribbon cutting ceremony marked the official grand opening of Naval Hospital Bremerton's Simulation Center, Nov. 18.

As part of the ceremony, and with such advanced tools as high-fidelity patient mannequins and a Mobile Obstetric Emergency Simulator, the assembled Navy doctors, nurses, hospital Corpsmen, and support staff were introduced to high-tech replications offering all-too-real training opportunities at their own command.

"We are training for tomorrow's mission today," said Cmdr. Sally Butler, NHB quality management head. "I'm really excited and proud that we can now train for the unexpected and unpredictable as well as the routine, and also for our operational readiness component heading down-range."

According to Butler, learning how to provide medical support to critical care adult patients provides the core structure of the simulation lab, but there is a gradual emphasis being placed on training to handle pediatric casualties and child trauma cases. The Simulation Center will enable staff members to

practice techniques to ensure patient safety, clinical competence and operational readiness.

"The training here will lead to immediate life-saving efforts in the field," she said.

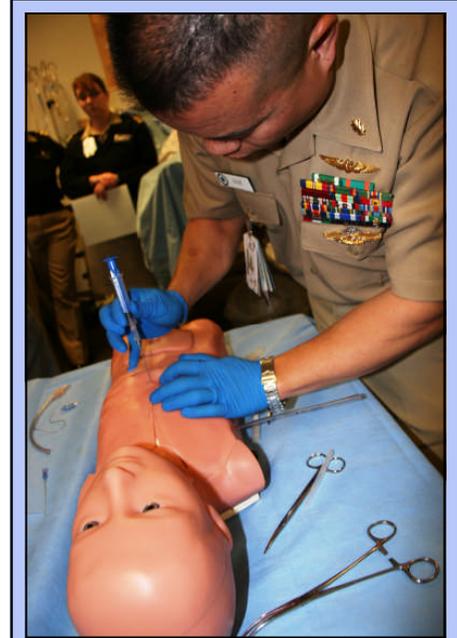
A sizable show of hands was raised by staff members at the grand opening when asked who had experienced pediatric injuries/child trauma while deployed as an Individual Augmentee.

"Pediatrics is the new frontier in trauma training for us," said Butler.

Butler said several Navy nurses who have already deployed to Iraq and Afghanistan as IAs, are currently receiving specialty training in a simulation center to then help facilitate and share the learned lessons once back at NHB.

"Because we (Navy Medicine) were there and when the local population knew we were there, they would bring their children needing care and we never turned anyone away," said Lt. Cmdr. Kevin Gue, NHB intensive care unit critical care nurse.

"Whether it's dealing with trauma here or trauma down range in Afghanistan, this simulation center gives us the tool and means to get as close as we can



BREMERTON, Wash.— Lt. Cmdr. Kevin Gue, a critical care nurse for the intensive care unit at Naval Hospital Bremerton, practices rendering emergency aid to a pediatric casualty during the grand opening of the Naval Hospital Bremerton Simulation Center, Nov. 18. The center will allow Navy doctors, nurses, hospital Corpsmen and support staff to prepare for a wide range of medical emergencies. (U.S. Navy photo by Douglas H. Stutz/Released)

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## HOSPITAL

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non-ambulatory patients with stays in excess of 24 hours. It will also include a central utilities plant, a multi-level parking structure and surface parking. Site enhancements such as walking paths are also included in the construction project.

The guest speaker at the groundbreaking event was Vice Adm. Adam. M. Robinson, Jr., surgeon general of the Navy and Chief of the Navy's Bureau of Medicine and Surgery.

"Navy Medicine is Marine medicine," said Robinson. "Wherever Marines go, there will be Navy."

Robinson explained to the guests how the new hospital would be centered more on patient care.

"Focusing on our warriors that come to our hospitals is the fundamental strength by which Navy Medicine is conducted," said Robinson.

The hospital is scheduled to be completed January 2014, and will be ready for use later that year.



MARINE CORPS BASE CAMP PENDLETON, Calif.— Artists rendering of the new Naval Hospital Camp Pendleton replacement hospital. The new 500,000-square foot, multi-level facility will replace the current 37-year old hospital. The new hospital is scheduled to be completed Jan. 2014 and will be ready for use later that year. (Courtesy photo)

## Navy Surgeon General Addresses Global HIV/AIDS Challenge

*From Bureau of Medicine and Surgery Public Affairs*

SAN ANTONIO - The U.S. Navy surgeon general addressed the importance of controlling HIV/AIDS in global military and peacekeeping organizations to an international audience Dec. 6, during the 10th annual HIV/AIDS Planning and Policy Seminar held at the Crowne Plaza, Dec 3.-10.

Vice Adm. Adam M. Robinson, Jr. discussed the healthcare challenges associated with the spread of HIV/AIDS and provided some recommendations to senior Ministry of Defense and Ministry of Health medical officers from more than 40 countries including sub-Saharan African nations, Southeast Asia, Eastern Europe, and South America.

"HIV/AIDS is not a problem for just some countries, but for all militaries around the world," said Robinson. "This is a significant public health issue and not one that can be ignored."

The seminar is designed to assist participants in the development of strategies and policies to execute sustainable, effective programs for HIV prevention and consequence management.

Robinson highlighted success stories in countries like Botswana, Chile, the Philippines, Thailand, and Zambia, and recommended that all nations working

together should look at what they were doing right and replicate their best practices across the board. According to Robinson, these countries have improved or expanded their prevention education, including training their military medical and nursing staffs.

Robinson also emphasized the importance of 100 percent comprehensive testing for all military members, regardless of nation, on an annual basis at a minimum.

"Testing should be an integral part of every military's HIV/AIDS strategy that goes hand in hand with counseling and prevention programs," said Robinson.

The U.S. Military has been active in working with other federal agencies, non-governmental organizations (NGOs), and global partners in combating HIV/AIDS. The DoD HIV/AIDS Prevention Program (DHAPP), based at the Naval Health Research Center (NHRC) in San Diego, Calif., is the DoD executive agent for the technical assistance, management, and administrative support of the global HIV/AIDS prevention, care, and treatment for

foreign militaries.

In addition to administering funding, conducting training and providing technical assistance to focus and other bilateral countries, DHAPP oversees the contributions to the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). PEPFAR is the largest health program ever initiated by one country to address a single disease. A 2009 study found PEPFAR reduced the AIDS death rate in the countries involved by 10 percent.

Robinson told the audience that the Navy has an important role to play in the fight against HIV/AIDS which is in keeping with the maritime strategy.

"Our military men and women of all services are ambassadors to our nation wherever they are deployed," said Robinson. "Our military-to-military medical partnerships are a key element in the fight against HIV/AIDS. These partnerships are a part of our larger SMART Power efforts to engage with other countries not only diplomatically but through aid, training, education, and research."



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get with necessary training to be prepared," said Capt. Mark E. Brouker, NHB commanding officer. "No training can provide real-life trauma instruction, but our new center will help us drill and gain skills very close to real-life."

"My goal is to pass on my acquired experience from the field and help others to build up their muscle memory skill when handling casualties to be successful in a combat zone," said Hospital Corpsman 2nd Class Andrew Chase of Eugene, Ore., Simulation Center leading petty officer.

Chase is also a Tactical Combat Casualty Care Course instructor, having spent approximately 14 months in Iraq, from the desert of Al Anbar province to Baghdad, to the southern coastal region of the Al Faw peninsula.

"No one can fail in this simulation center," said Chase. "These

simulation dummies and mannequins are the next best thing to live tissue. We've really come a long ways from how it used to be. This gear is great."

The Simulation Training Center is available for adult resuscitation; child/infant resuscitation; labor and delivery management; advance airway management for adults; nuclear, biological, or chemical incident training; multidisciplinary team training events for medical and surgical wards, intensive care unit and Emergency department; operationally focused trauma reenactment to support the now-mandatory pre-deployment TCCC for hospital corpsmen.

"We also plan on sharing the center, such as with the USS John C. Stennis (CVN 74) medical department," said Capt. Mark Turner, NHB executive officer. "It will be very helpful for them in any number of training evolutions in preparing for carrier strike group operations."

## Simulated Med Technology Advances Learning in Navy Medicine

By Valerie A. Kremer, Bureau of Medicine and Surgery Public Affairs

WASHINGTON - Navy Medicine is capitalizing on simulation, modeling, and training technologies throughout the country to strengthen critical skills for Navy medical personnel.

“Mannequins, virtual worlds, and gaming involving training are some of the advancements in modeling and training for Navy medical personnel,” said Cmdr. Cindy Ambach, Navy Medicine director for Clinical Modeling and Simulation. “These tools allow the student to increase performance and better evaluate and project future scenarios.”

The tools also assist in tackling the increased demands of a high operational tempo and diverse deployment environments and missions. Through the use of these superior mannequins, improvements in the application of mock injuries, and virtual reality systems like the Wide Area Virtual Environment (WAVE), the Navy is reinforcing its commitment to providing world-class care to its Sailors and Marines.

Although the Navy still uses low and medium fidelity mannequins, or patient simulators, to provide basic clinical learning experiences, truly realistic training is achieved through high fidelity mannequins.

“High fidelity mannequins react like a human,” said Ambach. “They have pupils that dilate, they breathe, bleed, have IV access for practicing medication administration, and make lung and bowel sounds. There is even a high fidelity



SILVER SPRING, Md.— The Wide Area Virtual Environment (WAVE), located at the National Capital Area Medical Simulation Center, is a large scale simulator designed to train medical teams in battlefield and natural-disaster scenarios. It has three-dimensional images displayed on three vertical screens to immerse viewers in a virtual setting. (Courtesy photo)

mannequin that gives birth so students can practice the child-birthing process.”

The use of high fidelity mannequins has had a significant impact in the training process for Navy medical personnel. The mannequins react just like humans ensuring proper technique is

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## Drug Take Back Program Creates Large Turnout at Camp Lejeune

By Raymond Applewhite, Naval Hospital Camp Lejeune Public Affairs

NAVAL HOSPITAL CAMP LEJEUNE, N.C. —Naval Hospital Camp Lejeune joined forces with the long arm of the law, Marine Corps Base Provost Marshal’s office, Saturday, Dec. 4, for a Drug Take Back program.

The program allowed Marines, Sailors, retirees, and family members to turn in old or expired prescription drugs without hassle. The event was highly successful and participants from throughout the base and local community turned in a colorful assortment of 20,000 pills of various shapes and sizes. A number of inhalers, creams, and pre-filled medical syringes were also turned in.

The Drug Take Back program is designed to help the community help itself by safely turning in medications, which will help the environment, aid in the prevention of medications falling into the hands of children, and also help prevent accidental overdose or misuse.

“Many parents appreciate the initiative,” said Hospital Corpsman 2nd Class Timothy Ashburn, a certified pharmacy technician and volunteer at the Drug Take Back Program. “Parents were dropping off their medications to be sure they were protecting their children and children’s friends. Many

attested to how their own medicine cabinet was a dangerous place.”

This was the first time that the nationwide program was co-hosted by Naval Hospital and Military Police at Camp Lejeune. The event was spearheaded by Lt. Sonja Diaz-Sevilla, NHCL pharmacist. Several members of the hospital Junior Enlisted Association helped with the collection of the medications. The hospital staff hopes the event continues on a quarterly basis.

The Camp Lejeune Base Provost Marshal’s office was in charge of ensuring that the medications were turned into a designated Environmental Protection Agency approved facility responsible for the safe disposal of all of the medications that were turned in.

The Naval Hospital public affairs office and marketing department collaborated with Marine Corps Base marketing division to lead a vigorous marketing campaign in advance of the event.

The event drew praise from beneficiaries as they walked up to turn in their medications. Several of the beneficiaries complimented and thanked the staff for hosting the event.

Capt. Daniel Zinder, commanding officer, NHCL, had commented previously that the Naval Hospital was proud to participate in the community event and that the hospital look forward to participating in other community events in the future.



## TRICARE Assistance Program Supports You During the Holidays

By Sharon Foster, TRICARE Management Activity

The holidays are a great opportunity to bond with family members and reconnect with old friends, but this time of year can also present significant stress, particularly if a loved one is deployed for the holidays. An empty seat at the dinner table, holiday shopping, minus one or unwrapped gifts under the Christmas tree can cause the holiday blues. Joyous reminders of the holiday season can also bring pain and loneliness.

In a four-minute video, "Getting the Help You Need, When You Need It," at [www.tricare.mil/mentalhealth](http://www.tricare.mil/mentalhealth), Adm. Mike Mullen, chairman of the Joint Chiefs of Staff, encourages service members and family members to reach out for help if they are struggling with feelings of stress, anxiety, or depression.

Especially during this time of the year, it is critical that TRICARE beneficiaries reach out to family members and friends if they are experiencing any holiday blues. Sometimes frequent communication with a loved one can get a beneficiary back on track. TRI-CARE Assistance Program (TRIAP) is here to assist.

To access information on TRIAP, go to [www.tricare.mil/triap](http://www.tricare.mil/triap) or go to your regional health care contractor's website.

TRIAP is web-based videoconferencing that provides short-term, solution-focused, non-medical counseling for situations resulting from commonly occurring life circumstances such as deployment stress, relationships, personal loss, and parent-child communications. All TRIAP services, available 24 hours a day, seven days a week, and

365 days a year, are provided on a one-to-one basis, in the context of a confidential relationship, with a licensed professional.

"Through the coordinated efforts of leaders, medical professionals, chaplains, families, and military personnel, TRIAP services can provide positive care for those who seek help," said Col. Chris Philbrick, deputy director, Army Health Promotion, Risk Reduction Task Force.

TRIAP services are available to: active duty service members, active duty family members (children must be age 18 or older), beneficiaries using TRICARE Reserve Select, and beneficiaries covered under the Transition Assistance Management Program. Beneficiaries do not need a referral or prior authorization to use TRIAP services.

## Navy's Top Doc Thanks Personnel for Care Provided to Marines

From Bureau of Medicine and Surgery Public Affairs

TWENTY-NINE PALMS, Calif.— The U.S. Navy surgeon general visited the Robert E. Bush Naval Hospital, Dec. 3., during his tour of Navy medical facilities that support the Marine Corps in southern California.

Vice Adm. Adam M. Robinson, Jr. toured the hospital, participated in a retirement ceremony, and spoke with command leadership where he discussed the history and importance of Navy Medicine's partnership with the Marine Corps.

"The bond that Navy Medicine shares with our Marines is like none other - it's sacred and unique," said Robinson. "When our Marines deploy, they know they will be well-cared for, from the battlefield to when they return home. We will follow the Marines into heaven or to the gates of hell."

The Robert E. Bush Naval Hospital, located in the High Desert region of the Mojave Desert, is a tenant command on the Marine Corps Air Ground Combat Center in the city of Twenty-nine Palms.

The Marine Air Ground Task Force Training Command conducts relevant live-fire combined arms training, urban operations, and joint/coalition level integration training that promotes operational forces readiness. The hospital is a state-of-the-art, 160,000 sq. ft. facility containing 22 beds, an Emergency Medical Department, four operating rooms, a new

seven-bed Desert Beginnings Labor Delivery Recovery and Postpartum (LDRP) Unit, and a 15 bed multi-service ward (MSW) for inpatient care. A modern full-service pharmacy, laboratory, radiology departments, and a physical therapy clinic are also available to beneficiaries.

Capt. Ann Bobeck, Naval Hospital Twenty-nine Palms commanding officer, said it is an honor to support the Marines' mission.

"I am very proud of our staff here at the Robert E. Bush Naval Hospital," said Bobeck. "They work hard every day to deliver the best possible care to the Marines and their families here at Twenty-nine Palms, not to mention the many military retirees who live in the area."

During his visit, Robinson also highlighted his commitment to supporting force readiness and the importance of providing quality patient and family centered care.

"When our Sailors and Marines deploy, it is critical that they know their families will be well cared for in their absence," said Robinson. "This commitment by Navy Medicine not only brings peace of mind, but it supports force readiness as our war fighters can better focus on the job at hand."

During his tour of select Navy medical facilities in the area, Robinson also participated in the ground breaking ceremonies of the replacement Naval Hospital at Camp Pendleton, Dec 2.

**Got News? If you'd like to submit an article or have an idea for one, contact MEDNEWS at 202-762-3160, fax 202-762-1705 or [Valerie.Kremer@med.navy.mil](mailto:Valerie.Kremer@med.navy.mil).**

## NAMRU-3 Conducts Training, Studies Neurologic Disease in Georgia

By Darnell P. Gardner, Jr., Public Affairs Officer, NAMRU-3

CAIRO — A five-person team from U.S. Naval Medical Research Unit No. 3 (NAMRU-3) traveled to Tbilisi, Georgia, to conduct laboratory and epidemiologic training and initiate a new protocol entitled, “Hospital-based Surveillance on the Etiologies of Acute Meningitis and Encephalitis in the Republic of Georgia.”

Ms. Margaret Farrell, lead epidemiologist, explained, “This protocol is the first phase of an overarching plan to establish surveillance for acute infectious neurologic disease in the Republic of Georgia. In Jan. 2011, we will initiate a complementary surveillance system for acute flaccid paralysis (AFP) at four predetermined hospital sites.”

Dr. Jolanta Jacobs, Mr. Mohamed Abdel Maksoud, and Ms. Engy Emil conducted laboratory training at the National Centers for Disease Control (NCDC) and the Infectious Diseases Hospital. The training included lectures on safety, sample collection and processing, and real-time polymerase chain reaction (PCR).

The knowledge and skills gained from this training will be applied toward the laboratory testing associated with three Department of Defense Global Emerging Infections Surveillance and Response System (DoD-GEIS) funded protocols: “Characterization of the infectious causes of acute febrile illness in the Republic of Georgia,” “Hospital-based Surveillance on the Etiologies of Acute Meningitis and Encephalitis in the Republic of Georgia,” and “The Epidemiology and Etiology of Flaccid Paralysis of Infectious Origin in the Republic of Georgia.”

“I was very impressed by the cheerful professionalism and eagerness to learn and apply the knowledge for their institutions, shown by all of the Georgian staff in all of the laboratories visited,” said Jacobs.

Farrell and Ms. Suzanne Restrepo-Martinez, along with Dr. Tamuna Akhvlediani, the in-country study coordinator, conducted protocol initiation training with the surveillance staff, which included clinical personnel from the four hospital



TBILISI, Georgia - Ms. Engy Habashy, team member from NAMRU-3 instructs National Center for Disease Control technicians on polymerase chain reaction (PCR) techniques during lab training in the Republic of Georgia. (Photos courtesy of NAMRU-3 Public Affairs/Released).

study sites and data management staff from NCDC.

This training covered an overview and background of the surveillance protocol, standard clinical procedures, staff roles, and responsibilities, informed consent, data and sample collection, study documentation, database management, and monitoring and evaluation.

“We are looking forward to the next Tbilisi visit,” said Ferrell. “The training will include laboratory training related to microscopic agglutination testing (MAT); the introduction of electronic data collection via personal digital assistant (PDAs); a neurologic/neurophysiologic consultation by CDC neuroepidemiologist, Dr. James Sejvar; and the establishment of surveillance for AFP.”

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learned and administered.

“If a student is not pressing hard enough for chest compression, the mannequin will react to that,” said Ambach.

Advancements in moulaging, or the application of applying mock injuries, have also advanced the training of medical personnel. Moulaging allows the student to see what limbs look like once amputated with visible bones, and see what shrapnel would look like in the body.

“Students are able to get in there and create many scenarios,” said Ms. Sheila Hill, supervisory education and training policy specialist, Navy Bureau of Medicine and Surgery. “The mannequins can endure more than a human. It allows the students to create scenarios to anticipate a crisis.”

Through the combined use of mannequins, simulation, and

virtual worlds, Navy Medicine has even taken training one step further. WAVE, located at the National Capital Area Medical Simulation Center, is a large-scale simulator designed to train medical teams in battlefield and natural-disaster scenarios. It has three-dimensional images displayed on three vertical screens to immerse viewers in a virtual setting.

“Imagine having your mannequin physically with you, getting fired at,” said Ambach. “You have to move your mannequin to a safe place to perform resuscitative care. The WAVE even simulates environmental conditions like heat.”

The 8,000-square-foot virtual space allows team members to interact with each other and real equipment, and gives instructors the opportunity to teach and assess teamwork skills. 3D images are displayed on the screens with paired video projectors while users wear lightweight 3D to view the screen.

“In the future, it will be total immersion into the learning environment,” said Ambach. “It will be amazing to see what simulation will look like ten years from now.”

## Happy Holidays from the Navy Surgeon General

By Vice Adm. Adam M. Robinson, Jr., U.S. Navy Surgeon General

To the 63,000 thousand personnel that make up the Navy Medicine community, please accept my warmest wishes to you and your families this holiday season. This is a time to celebrate our faith in our churches, synagogues and other places of worship. It is also a time to reflect on the sacrifices of our Corpsmen, Nurses, Doctors, Dentists, Allied Health Professionals and Health Care Administrators who are deployed with Sailors and Marines worldwide-providing critical mission support aboard ship, in the air, under the sea and on the battlefield.

This past year we have saved lives in Haiti, conducted humanitarian missions in the Pacific, Southeast Asia, Africa, and South America, and provided care for family members and retirees at military treatment facilities around the globe. For those of you on call around the world please know that your service and sacrifice does not go unnoticed. The work you do every day is saving and impacting lives in a very positive way. It is always challenging to be away from friends and family during the holidays, but remember this time because I can think of no more important work than preserving life and limb, and healing our



patients and their families in body, mind, and spirit.

As you celebrate with your families this season, think about the lives you impacted through your sacrifice and service and be proud of your accomplishments. Keep your hearts and minds on our Sailors, Marines,

Soldiers, Airmen, and Coast Guardsmen who are deployed far from home, some of whom are in harm's way and remember those we have lost this year. May their ultimate sacrifice on behalf of our nation remind us of those who have gone before and what we are fighting for.

I remind you all to please celebrate responsibly. Whether you are deep frying a turkey or driving home from a holiday party, keep the safety of you and your loved ones on your mind and remember that others on the roads may not

be driving responsibly, so exercise caution at all times.

Happy Holidays Shipmates! Thank you for everything you do every day to care for our Sailors and Marines around the world. I also want to thank your families for their support which we count on throughout the year. As I begin my last year as your Surgeon General, I could not be more proud.

Thank you for your service and may all the blessings of this life be with you and your families this holiday season and in the coming year.

## Navy Med TRICARE Outpatient Clinic Pharmacy Goes High-Tech

By Mass Communication Specialist 1st Class (SW) Todd Hack, Naval Medical Center San Diego Public Affairs

SANTEE, Calif. — Naval Medical Center San Diego's (NMCS D) TRICARE Outpatient Clinic (TOC) East County Pharmacy in Santee, Calif. modernized pharmaceutical care in September 2010 with the installation of a new robotic system.

The ScriptPro® robotic filling and computerized workflow system helps to reduce prescription errors achieving safety in every step of the prescription dispensing process. Different robots (SP100, SP50, SP200) were installed at each NMCS D clinic depending on its size.

"We were the only Naval Medical Center San Diego Health Clinic pharmacy to have a robotic system in 2007," said Bill Nguyen, TOC East County pharmacist. "The new system is safer than the old system and includes telepharmacy workstations."

The new robotic systems were purchased by Naval Medical Logistics Command in Fort Detrick, Md., for Navy Military Treatment Facilities around the world. The cost for installation of the new systems to NMCS D clinics and TOCs was approximately \$4 million.

The new SP 100 robotic system installed at the TOC East County Pharmacy is easily calibrated and allows for different medications in each of its 100 cells. The system can convey all of a specific patient's medications to one location after labeling each bottle.

"We dispense more than 250 medications here for approximately 100 patients per day," said Nguyen. "Most of our patients bring in prescriptions from physicians outside of the [TOC East County] clinic or the NMCS D system."

The process is simple, a technician verifies the patient's prescription label against the medication, compares the medication to a picture of what the

medicine at the work station, and then verifies it with the patient information.

The new technology offers software and hardware solutions that allow pharmacies to conduct safe and efficient telepharmacy operations to include live audio or video connections from clinic-to-clinic and from provider-to-patient to allow for real-time communication.

When a pharmacist is not present, a pharmacy technician can scan the product's barcode and the hardcopy prescription. Then the technician captures an image of the medication, and prints the image of the prescription label. Once all the prescriptions for the patient are ready and batched, the technician calls the off-site pharmacist for prescription verification.

If a pharmacist is unavailable for medication patient counseling, the pharmacy technician can call an off-site pharmacist and share the prescription information on-screen so all parties have a visual of the order.

## Caring for Casualties During the Holidays in Kandahar

By Capt Mike McCarten, Commanding Officer of the NATO Role 3 Multinational Medical Unit, Kandahar, Afghanistan

Being deployed during the Holiday Season has always been the stuff of vivid memories. That is certainly true in Kandahar, Afghanistan where I command the NATO trauma hospital south of Kandahar City, the NATO Role 3 Multinational Medical Unit.

Over the past few weeks, the holiday spirit has been on the rise. Christmas trees have appeared in many clinics, stockings are hanging behind the nurses' stations and the holiday music can be heard from i-Pod stations throughout the hospital. And as has also always been my experience, one Sailor seems to be the primary source of the holiday cheer.

At the Role 3, it is Hospital Corpsman 1st Class (HM1) Christine Hanley from Dallas, Texas. Every time I turn around and see another set of decorations being assembled and displayed, Hanley is in the middle of the action. As the entire crew awaits our command holiday party scheduled for Dec. 23, it is Hanley who is in the middle of the planning. She is the one in a million kind of Sailor that makes deployment tolerable.

And while each of us embraces the holiday spirit, our care for the casualties from the battlefields of southern Afghanistan continues. The helicopters continue to land. Flight crews and Hospital Corpsmen rush into the trauma bays with wounded Soldiers and Marines and we do our very best to care for them.

With the arrival of casualties, the rhythm in the hospital is familiar. The trauma crews, the nurses, the radiologists all know their roles all too well. There is the orderly 'chaos' of assessment and resuscitation where limbs are examined,



KANDAHAR, Afghanistan — U.S. Navy medical teams working at the Role 3 NATO Hospital operate on a military member wounded in southern Afghanistan in the hospital's trauma bay, Jan 13. (U.S. Navy photo/Released.)

blood is drawn, scans are ordered, and blood is hung. Standing by are the surgeons and the operating room crews, prepared to whisk the most seriously injured away to begin the surgery that will save a life.

And as quickly as the pace ramps up, it ramps down. Cleaning crews break out the mops to clean the space for our next patients. The trauma crews replenish the stocks of bandages and fluids. And once again I can hear the holiday music coming from the i-Pod and see the stockings on the walls as the crew savors the season while waiting for the next helo to land.

Please remember that during this time of year that there are brave men and women in uniform proudly standing the watch far from home in support of our great nation. I'm proud of my people and the phenomenal work they are doing to help our wounded warriors and international partners here. I hope you all are as well.

*Capt. Mike McCarten is a U.S. Navy family physician and aerospace medicine specialist, currently serving as the commanding officer of the NATO Role 3 Multinational Medical Unit, Kandahar, Afghanistan. The Kandahar region has been the focus of much of the battle activity against the Taliban in the summer and autumn of 2010, many of the casualties from which were evacuated directly to the NATO Role 3.*



KANDAHAR, Afghanistan — U.S. Navy medical teams working at the Role 3 NATO Hospital are taking a moment from providing quality patient care for wounded warriors in Afghanistan to celebrate the holidays with their shipmates and patients, Jan. 13. (U.S. Navy photo/Released)

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