

ARMY MEDICINE

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Fortifying a **READY & RESILIENT** Force
through the **PERFORMANCE TRIAD**

**PERFORMANCE
TRIAD**



A worldwide publication telling the Army Medicine Story



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TSG INITIATIVES

READY & RESILIENT

The Ready and Resilient Campaign integrates and synchronizes multiple efforts and programs to improve the readiness and resilience of the Army Family.

PERFORMANCE TRIAD AND LIFESPACE

Army Medicine's operational approach to improve Soldier and Family health and stamina focusing upon Activity, Nutrition and Sleep Management (ANS). Visit the Performance Triad webpage at: armymedicine.army.mil/PerformanceTriad/index.cfm

OPERATING COMPANY MODEL

The Operating Company Model (OCM) seeks consistency of experience across the enterprise by both patients and medical staff. It is the abstract representation of how an organization operates across process, organization, and technology domains in order to accomplish its function. The OCM reduces operational complexity and describes the way a 21st century organization does business today.

ARMY MEDICINE 2020 CAMPAIGN PLAN

The Army Medicine 2020 Campaign Plan (AM 2020 CP) operationalizes the vision of the United States Army Medical Command (MEDCOM) for 2020. It also establishes the framework through which the Army Medical Department (AMEDD) will achieve its 2020 end state. Download the Army Medicine Campaign Plan

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The Performance Triad

An Army-Wide Movement toward a System for Health

TSG Remarks from the Stand-up for Health Training Day held August 8, 2013

Good Morning, I have the privilege to be able to be speaking from Munson Army Health Clinic. I usually talk off the cuff but what I decided to do with this, because I really believe this is a monumental kind of launching for Army Medicine, I wrote down my thoughts and I want to make sure that there are comments and thoughts that I don't forget to share with you so it will be a little different than usually how I talk to everyone across the Command. What I want us to walk away from this is a common operating picture; an understanding of where we have the opportunity to influence and shape how healthcare will be delivered in the future; what the tools are, and where you fit into this strategic plan so that you can start driving the change that we need to have across Army Medicine.

I would be remiss if I started this and didn't thank everybody for the hard work that is being done across our Command. It is incredible, when I travel abroad, to see the dedication and the challenges that we have had and to see folks so committed to really making a difference. That's what I have seen over this last two years and, more especially, that is what I have seen over this last, probably, 8-10 months with the challenges that we have had. As I travel throughout the Command, one of the things that I also had the opportunity to do is hear a lot and also feel the concerns that are there. There are also common concerns that we have had across Army Medicine. There is a natural tendency to focus on what are visible symptoms of our current challenges. We have challenges with the drawdown, sequestration, budget cuts and furloughs. It is obvious that these challenges fill our inboxes, consume our days and they negatively affect morale



Lt. Gen. Patricia D. Horoho

and peoples' feeling of self-worth. But I submit to you, that while these symptoms require recognition and obvious response, if we focus only on the symptoms, we will never be able to get through this. We have got to be able to focus on more than the things that I just talked about. We have got to address the underlying illness, because the ultimate threat is to our National Security. Some people may be sitting there listening and thinking that I am being grandiose or overly dramatic, but I really believe that this is a threat to our National Security.

The most visible challenges are financial in nature. It's the unsustainable cost of defense spending relative to our federal budget, it's the cost of Military Health System relative to our DOD budget and the major challenge often concealed or overshadowed by the financial challenges, is the declining health status of our Soldiers, our Families, and the nation at large. These two challenges; financial constraints and declining health status, merge before us today and together present a significant threat to our Security. We are an organization that

has been here for 238 years. We have had tremendous challenges that we have faced over the past 238 years. What we have done well is that we have seized the opportunities that those challenges present and today is no different.

So my intent today is to sharpen our common understanding of the challenges and potential solutions before Army Medicine and Military Medicine more broadly. This is a call to action and when I took command in 2011, we talked about a call to action. We have been working for the last 20 months to develop the plan of where we are today, and what I need is everyone across the Command to feel that this is a call to action and that there is no option for us but to dig in, no option to wait for the storm to pass. Everyone in Army Medicine has an active role in changing, not only the way Army Medicine is organized and operates, but also in how we interact with our patients and our beneficiaries and how we influence health. Whether in leadership positions at OTSG, MEDCOM, the Regional Medical Commands, the Major Support Commands, or closer to the point of healthcare delivery both in our Medical Treatment Facilities and in our line units, each of us have a critical part in shaping Army Medicine's future. That future begins today. This will be our legacy and you all will be here in making this historical moment. That is something I believe you are going to remember and you will look back and realize you were a part of the launching of the change in, not just healthcare across Army Medicine, but healthcare across our nation.

To access TSG's full remarks click here: armymedicine.army.mil/news/Health/TSG_SUFHTD_Remarks.pdf

A Wise Woman Said

The Longest Serving Enlisted Female Soldier in the U.S. Army

I joined the Army in a roundabout way. At 17 years old, I was ripping and ready to go to college, but then something tragic happened. My mother passed away at 40 years old from a heart attack. I made the decision to stay at home with my father to help with the other children. I went to school and worked full time.

In 1979, I visited a recruiter and joined the Army. My intent was not to stay in the Army. I was going to do four years and get out and work for the Postal Service.

My leadership is a credit to the many mentors who trained me, starting with my father. Every five or so years I would mention that I was going to get out of the Army, and it was my father who believed in me and pushed me to stay in. At the other end of the spectrum, a squad leader in Germany told me I wasn't going to be in the Army forever. He told me to go to school and to do what I can while I was still in. That was hard to hear, but now I realize he was setting me up for life after the Army.

You have to take care of people directly and indirectly and always treat them with dignity and respect. You must trust that people will do the right thing and not assume that you should complete a task because others will not do it right. If you do that, you are carrying too much of the workload. The team will have nothing to do and will feel that you are not confident in them.

Stereotyping is another major challenge leaders face. People will have preconceived notions of how things are or why they are that way.



Command Sgt. Maj. Donna A. Brock

You can control those stereotypes by establishing your own work ethic.

Fair treatment for everyone is important as a leader. As a female command sergeant major, I am expected to mentor females. I work for everyone, males and females, so I try to be neutral.

Effective leadership entails expressing confidence in your people. I strongly believe that mentoring,

teaching, and coaching are what good leaders do. If you are micromanaging you are not a leader. Your team will never grow if you are micromanaging.

The most important thing I have learned in my career is that if you want to be heard, speak up, especially as a female in a male-dominant environment. But do your homework before you open your mouth. Make sure you know what you are trying to say and with factual proof. You will make mistakes, but when you do, make sure you acknowledge them, to acknowledge that there is no such thing as coming out of traumatic events unaffected.

Donna Brock is Command Sergeant Major and senior enlisted advisor to the Army Surgeon General. As the longest serving enlisted female soldier in the U.S. Army, she will retire in the next year and a half after completing 35 years on active duty and completing nearly every assignment a female enlisted soldier in the medical field can hold.

“I strongly believe that mentoring, teaching, and coaching are what good leaders do. If you are micromanaging you are not a leader. Your team will never grow if you are micromanaging.”

-Command Sergeant Major Donna A. Brock

Be Ready! September is National Preparedness Month

Would you be ready if there were an emergency? Be prepared: assemble an emergency supply kit, make your emergency plans, stay informed, and get involved in helping your family, your business, and your community be ready for emergencies July 2, 2013.

Throughout September there will be activities across the country to promote emergency preparedness. More than 3,000 organizations – national, regional, and local public and private organizations – are supporting emergency preparedness efforts and encouraging all Americans to take action.

Join the effort! Visit our Web site for “Emergency Preparedness and

Response” and follow these four steps:

- Get a Kit.
- Make a Plan.
- Be Informed.
- Get Involved.

September 2013 marks the ninth annual National Preparedness Month, sponsored by the Federal Emergency Management Agency in the US Department of Homeland Security.

One goal of Homeland Security is to educate the public about how to prepare for emergencies, including natural disasters, mass casualties, biological and chemical threats, radiation emergencies, and terrorist attacks.

<http://www.cdc.gov/Features/BeReady/>

Patriot Day and National Day of Service and Remembrance

On September 10, 2009, the President of the United States of America issued a Proclamation declaring September 11 as “Patriot Day and National Day of Service and Remembrance” to honor the victims of September 11, 2001, and to call upon all Americans to join in service in the spirit of patriotism... To access the full Proclamation visit:

http://www.whitehouse.gov/the_press_office/Presidential-Proclamation-Patriot-Day-and-National-Day-of-Remembrance-and-Service/

The Army Surgeon General Patriot Day Remarks

A dozen years have passed since the tragic events of September 11, 2001 that took the lives of nearly 3,000 innocent people. We fly the American flag at half-staff in their honor and in honor of those who serve. This day has been officially named Patriot Day and the National Day of Service and Remembrance. Since 9/11/2001 more

than 1,000,000 military members have served in our all-volunteer armed forces here in the U.S. and abroad and in direct support of Operations Iraqi and Enduring Freedom. As we observe Patriot Day 2013, we ask that you pay tribute to those who serve this great nation, honor those lost since 2001, honor and continue to support those injured, and always remember those who continue to serve and protect our great nation. This day has special meaning for all Americans, but most especially for those who serve, have lost loved ones or assisted in the rescue and recovery efforts at the Pentagon, New York City, and in Pennsylvania.

This is most meaningful to me because I was there -- inside the Pentagon on September 11, 2001 when the plane hit the building. My colleagues and I remember the shudder of the building and the smoke. We remember the wounded that walked out. We remember the chaos amid the smoke, but most of all we remember those who risked their lives to enter and re-enter the blackened corridors to

rescue those trapped inside.

At a triage point outside the Pentagon, Warriors and Civilians used whatever means available to render comfort and to move the wounded to local area hospitals after first aid was administered.

This day means so much to us and to those whose lives were directly affected by this horrible event.

On this day, of September 11 simply remember.

That’s all.

Remember.



Defense Health Agency leans forward to change

By Rob Cain, OTSG Public Affairs

“We all have big changes in our lives that are more or less a second chance.”

--Harrison Ford

In the military, pomp and ceremony usually denotes an end to a new beginning. On October 1, 2013, 10:00 a.m., at the Defense Health Headquarters in Falls Church, there will be the casing of the colors of the Tricare Management Activity (TMA) and the raising of a flag to celebrate the creation of a new activity called the Defense Health Agency (DHA).

This is a special event. It shall have what other ceremonies of this kind have had in the past: people watching seriously from the sidelines, service members standing at attention, and will have a unique mission and intent for the future to make medical care better for our nation’s service members. The day of the ceremony is not the end of a journey, but marks a beginning from the first step in 2013 to being fully operational in the fall of 2015.

Led by Air Force Maj. Gen. Douglas J. Robb this October 1, 2013, the Defense Health Agency will stand up with the mission to change how military medicine does business. This means streamlining processes, reducing complex operations, and achieving actual cost reductions with an end state of improving care to beneficiaries. This means Army beneficiaries.

This change does not alter MEDCOM’s mission to provide responsive and reliable health services. It does not alter the mission to improve readiness and advance the wellness of Soldiers and their Families. Everything is in place and remains the same. However, the implementation of DHA is an attempt to reduce operating costs by consolidating services. It is to bring under one command those services such as Information Technology, and

Research and Development (two of ten functions) that quite logically should be the same no matter if you are in the Army, Navy or Air Force.

Money can be saved in sharing services such as Healthcare Operations, Business Support, Research and Development, IT, and Education and Training.

A baby is delivered the same for an Air Force dependent as it is delivered for an Army dependent. The doctor may wear a different uniform that assists the expectant mother, but why should the health record that records her medications and symptoms be different from the health record of a mother delivering in an Army Hospital? Why should the research and development of new medications and surgical procedures be under different commands when such discoveries benefit all no matter what uniform the service member wears? In addition, this means that drugs that are prescribed and kept track by computer can be easily standardized across the services. Thinking in these terms, understanding how these types of processes overlap, is an opportunity to increase efficiencies and save money. Having the Armed Services work separately to achieve the same objective is redundant and wastes taxpayer dollars.

The establishment of the DHA is slated as “...the biggest structural organizational change” in military health system history, acting Tricare Deputy Director Allen Middleton sees these changes as “relevant” and will eventually make the Defense Medical System “stronger.”

There are ten shared services that will be placed under the DHA umbrella. The movement will be transitional. The first five: Facility Planning, Medical Logistics, Health Information

Technology, the Tricare Health Plan, and Pharmacy Programs move over on October 1, 2013. The remaining shared services of Public Health, Acquisition, Budget and Resource Management, Medical Education and Training, and Medical Research and Development will be part of DHA by 2015.

What is the goal of so many changes? The goal is to reduce costs, to implement system improvements, to have data available across the Medical Services, to standardize processes in performing analytic functions. It is not taking away any unique qualities or requirements for each of the Armed Services, but is aimed directly in improving care to the patient. The goal is to be efficient. The goal is to be the Soldier-first.

What does this mean for civilians and Soldiers in the new organization? Most will continue in their present jobs, and will experience no change in their current team or supervisor. Large scale relocations are not expected, and entitlements such as pay, leave, and benefits remain the same. Employees will not be expected to compete for positions. Only those in key leadership positions within the DHA will have this issue. As for job security, the Secretary of Defense has made it clear we are in for some tough financial decisions in FY14 that will impact the work force. This is a concern of many government organizations and should not be a surprise.

Additional information can be obtained by going to the website: <https://mhs.health.mil>. At this website questions will be accepted by email, Frequently Asked Questions (FAQs) are available for review, and the new DHA organizational structure is online to review.

At the Forefront of Vaccine Research to Safeguard the Military

By The Washington Post



Connie Schmaljohn

Since she was a young girl, Connie Schmaljohn knew she wanted a career that involved saving lives. More than 30 years ago, she started down the professional path toward achieving that dream by becoming an Army research scientist and working on vaccines to prevent diseases not typically found in this country, but which afflict members of the military overseas.

Schmaljohn, now an internationally recognized expert on Hantaviruses and hemorrhagic fever with renal syndrome, uses molecular biology tools to develop and test vaccines for a range of viruses. She and the scientists in her lab use recombinant DNA, a form of artificial DNA, to take the genes out of potentially deadly viruses so they are no longer infectious.

“We like to call them next-gen vaccines,” said Schmaljohn, a senior research scientist for the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) in Frederick, Md.

Research scientists at USAMRIID were among the first to use these DNA vaccines. “We’re always in the forefront of what the technological state of the art is and then we push it further,” Schmaljohn said.

Schmaljohn’s expertise enabled her and her colleagues to identify what was going on when the number of cases of Hantavirus Pulmonary Syndrome (HPS) exploded in the southwestern part of United States in the 1990s. Previously, the severe, sometimes fatal, respiratory illness due to Hantavirus infections was not known to cause disease in the Western hemisphere, and Hantaviruses had only been associated with kidney failure diseases in Asia and Europe.

But then HPS started felling people here.

“Because of the groundwork she had done, she was able to identify the outbreak

in the Four Corners as Hantavirus,” said Jean Patterson, chairman of Virology and Immunology at the Texas Biomedical Research Institute in San Antonio, referring to a region comprising parts of Arizona, Colorado, New Mexico and Utah. “It was the first time it was identified in America.”

Historically, USAMRIID has blazed medical trails, since the military serves all over the world and comes into contact with viruses not found in the United States and therefore aren’t widely studied here, said Colleen Jonsson, director of the Center for Predictive Medicine for Biodefense and Emerging Infectious Diseases at the University of Louisville.

“They were the frontline for exotic pathogens predominantly because soldiers serve in many, many countries,” she said. After 9/11, the National Institutes of Health also started sponsoring research to study these agents, she added.

Schmaljohn’s work on dangerous pathogens may be aimed at protecting military personnel, but the benefits spill over into the civilian population, as the Hantavirus outbreak demonstrated.

Her lab works on two types of vaccines: those that protect against medical infectious diseases and those that defend against agents that could be used as weapons in biological warfare.

Researchers at USAMRIID were the first to start testing DNA vaccines for biodefense, using a method of delivering DNA vaccines with a short electrical burst. The first study of this electroporation method dispensed a vaccine to muscle in a clinical study at Walter Reed Army Medical Center with two vaccines for Hantaviruses.

The next study will deliver the vaccine to the skin instead of muscle, a less invasive, less painful method. Schmaljohn hopes the immune response will be even better.

Schmaljohn decided early on she wanted to help save lives. She calls the story silly now, but she was watching a TV show, in which a little girl’s mother died from a disease. “I said, ‘That’s not right.’”

At first she thought she was going to be a doctor, but realized she preferred the broader reach of medical research. “I wanted people to not die of disease,” she said.

Schmaljohn describes the experiments she performed—and planned, designed and tested—as the highlight of her career. “Every top moment has to do with an experiment,” she said. “I don’t know how many years I’ve gone to parties or dinners and said, ‘I have to go check my experiment.’ It was a roller coaster of emotion. Did it work? Did it not work?”

Schmaljohn now mostly manages other scientists, but experiences “vicarious happiness,” through the people who work for her, she said. She continues to focus on keeping Soldiers healthy and safe.

“My job is to bring the newest technology to the Army and improve our science, and make us be at the very front of what we can do to protect the military from disease.”

This article was jointly prepared by the Partnership for Public Service, a group seeking to enhance the performance of the federal government, and washingtonpost.com. Go to <http://washingtonpost.com/wp-srv/politics/fedpage/players/> to read about other federal workers who are making a difference.

Dog Center Europe: Taking care of four-legged warriors saves Soldiers lives too

By Sgt. 1st Class Randall Jackson, 30th Medical Command Public Affairs

Veterinary care for military working dogs is essential to keeping four-legged warriors “mission ready” both in garrison and downrange.

That’s why the Baumholder, Germany-based 64th Medical Detachment (Veterinary Services) took time recently to brush up on their skills prior to their deployment to Afghanistan. On July 24, Dog Center Europe personnel tested the detachment’s skills and assessed their readiness, during training at U.S. Army Garrison Kaiserslautern’s Pulaski Barracks.

Their goal was to hone their abilities in garrison to prepare for the challenges of a deployed environment, said Maj. Kent Vince, an Army veterinarian who is the center’s director.

“It’s imperative that these teams get training in clinical medicine before going downrange,” Vince said. “You never know what they might face when they’re down there.”

Since ancient times, military working dogs were used as front line attackers, guard dogs, scouts and messengers. More recently they’ve been used to detect explosives. They’ve even been attributed as saving thousands of lives during conflicts in Vietnam, Iraq and Afghanistan.

The Army values its canine corps and specifically trains a dedicated cadre of veterinarians and technicians to take care of the health of these often courageous animals. Members of the 64th said they take every chance they get to work on bettering themselves, said Army Capt. Lindsey Day, a veterinary corps officer.

“This was another opportunity to practice our skills, and a chance to work together.” Day said.

Three teams of veterinarians and technicians performed surgeries while being observed and evaluated. Spc. Nicole Lamanna, an Army animal care specialist, said, she loves the atmosphere.

“Every chance I get to work in a clinic is amazing,” Lamanna said. “It just shows I can use what I’ve learned under stress.”

Veterinarians also offer first aid training for dog handlers - information that once helped Air Force Staff Sgt. Jonathan Forgham, from the 86th Security Forces Squadron, whose canine partner severely injured his head when jumping through a window.

“We had to rush him across the base to get him to the veterinarian. The whole time I was in the cage with him stopping the bleeding,” Forgham said. “We got to use the training they gave us and it helped.”

The care veterinary teams offer to working dogs in turn pays off for humans.

“Not only are dogs’ lives dependent on you, but also humans’ lives,” Lamanna said. “The dogs save lives. So, by saving the dog, we’re saving other Soldiers.”

Watch what’s playing now on YouTube

Senior Army leaders talk about Army Medicine’s transformation from a healthcare system to a system for health. This is a call to action. Are you ready?

Lt. Gen. Patricia Horoho, Army Surgeon General and Commanding General U.S. Army Medical Command discusses moving towards a System for Health and the Performance Triad.

The Functional Capacity Evaluation assesses the capacity of service members for specific work-related tasks.

Keeping Soldiers active first prong on Performance Triad

By David Vergun, ARNEWS

“As an Army we must be ready and resilient,” said the Army’s surgeon general.

To achieve these goals, “we need to fully appreciate the impact that the Performance Triad has on our daily lives,” said Lt. Gen. Patricia Horoho, who is also the commander of Army Medical Command. The Performance Triad includes Activity, Nutrition and Sleep.

Lt. Col. Scott Gregg, an Army physical therapist and expert on how physical activity affects the body, said Soldiers already understand the importance of working out to build strength and stamina. But citing work done by obesity expert Dr. James Levine, he said new studies suggest that workouts alone are not a guarantee of good health.

KEEP MOVING

For Soldiers and Family members who are sitting all day in an office or driving a vehicle, a 30-minute workout, while beneficial, is not enough to keep the pounds off and stimulate the body’s metabolic engine, Gregg said, citing Levine’s work.

“The human body was just not built to sit all day,” he said, adding that there are some surprisingly simple and effective things Soldiers and their Families can do to stay fit.

In addition to a daily workout, Gregg advises using the stairs whenever possible, taking a short walking break every hour, perhaps to the water fountain to rehydrate or just a quick trip around the building.

Ideally, moving around would be 10 minutes each hour, but unfortunately, that is not always possible, he said.

“The important thing is to just keep moving, ideally 10,000 steps a day, which can be measured by an inexpensive

pedometer or by a smart phone app,” Gregg said.

Some Soldiers can benefit by keeping a diary of how much time they spend sitting in the office or reclining in the easy chair watching TV. He said they’d be surprised at how much of the time they’re sedentary.

Workouts combined with activity breaks throughout the day can contribute greatly to such things as weight loss and reducing the odds for a host of chronic disease such as depression, diabetes, heart disease, high blood pressure, stroke, and some forms of cancer.

The reverse is true for those leading a sedentary lifestyle, especially those with bad habits in the sleep and nutrition aspects of the Performance Triad, Gregg said.

People who lead a sedentary lifestyle are more apt to consume junk food and have poor sleeping habits, compounding the negative effect.

“It’s a synergistic effect,” Gregg explained.

DON’T OVERDO IT

Gregg cautioned that too much exercise can lead to overuse injuries and is something Soldiers particularly should watch for, as many are highly motivated to be in top physical shape for personal and mission goals.

Warning signs for overuse injuries include joint pain and muscle soreness.

“Some Soldiers think it’s cool to exercise until you puke,” he said. “I’ve even seen it on T-shirts. That’s definitely not cool, and it’s not healthy either.”

An ideal workout would be 150-plus minutes per week, including at least two muscle strengthening sessions involving all major muscle groups, he said. There



should also be time set aside to warm up prior to each workout to reduce the likelihood of injury.

Another exercise principle, he said, is to gradually increase the intensity and duration of a new workout.

“The Army has a good exercise plan in its physical readiness training manual,” he said, “but I also realize many Soldiers are into other programs as well, such as CrossFit, P90X, Insanity and [Performance Triad] Pyramid.”

He cautioned Soldiers not to dive right into a new exercise without a break-in period.

Also, workouts should ideally include movements for strength, endurance, balance, agility and coordination for a holistic effect. The Performance Triad has those.

Another way to decrease the odds of injury is to wear the right gear, he said, including mouth guards and other devices for used in Combatives training, as well as good running shoes.

Finally, Soldiers experiencing pain or acute muscle soreness should seek treatment, said Gregg. Small problems can lead to bigger ones requiring a profile or hospitalization.

Soldiers who do end up on profile should, nonetheless, remain active, he said.

“Commanders tell me they want their Soldiers on profile to get back in shape as this is a unit readiness issue,” he said.

Army physical and occupational therapists and others routinely work with Soldiers, designing workouts

PERFORMANCE TRIAD

that rehabilitate injuries and maintain conditioning so that their profile period is shortened and so that they don't need as much time to get to full recovery once they're off profile, he said.

While it is the responsibility of every Soldier to ensure he or she is physically fit, it is the responsibility of leadership to ensure Soldiers are working out correctly, he said.

The activity portion of the Performance Triad empowers leaders to engage their Soldiers in effective physical training that minimizes injury risk.

Editor's Note: This is the first part of three-part series about the Army's "Performance Triad," which includes Activity, Nutrition and Sleep.

Resources:

- armymedicine.mil
- army.mil/readyyandresilient

Related STAND-TO!:

- Ready and Resilient Campaign Update
- Performance Triad: Activity
- Performance Triad: Sleep

- Performance Triad: Nutrition
- Ready and Resilient Campaign: Comprehensive Soldier and Family Fitness

Related articles:

- Leveraging technology to increase Soldier health and awareness
- The Performance Triad: Nutrition-The connective link in your Lifespace
- Surgeon General defines end state of Performance Triad roll out

Army Surgeon General Calls a Stand-Up for Health

Last month, the Army Surgeon General and commander U.S. Army Medical Command (MEDCOM) Lt. Gen. Patricia Horoho officially announced Army Medicine's System for Health and the Performance Triad during a MEDCOM-wide Stand Up For Health Training Day.

In a call to action, Horoho challenged Army Medicine leaders to change the way they think about healthcare delivery. The System for Health represents a paradigm shift from a health care system focused on disease, to a system focused on prevention; to sustain health, readiness and resiliency. The key tenants of the Performance Triad – activity, nutrition and sleep – provide the foundational road map upon which Soldiers and their families can make healthy life choices.

“As we wind down from nearly 12 years of combat operations, we – as an Army and as a nation – have a golden opportunity to reset, refit and refocus. That focus should be on maintaining, restoring and improving health – using improved physical activity, nutrition and sleep habits to foster increased readiness and resilience,” said Horoho who spoke to her leaders worldwide via video teleconference from Ft. Leavenworth, Kan.

The Stand Up For Health Training Day (SUFHTD) documents/videos are available via the Army Medicine homepage and clicking on SUFHTD icon: armymedicine.army.mil/.

The following is a direct link to the SUFHTD webpage: armymedicine.army.mil/news/Health/SUFHTD.cfm

The following items are available:

- TSG Video 'A Fireside Chat on Moving Towards a System for Health'
- TSG's Talk from SUFHTD
- Activity Video
- Nutrition Video
- Sleep Video
- Technology Video
- Stand Up for Health Training Day Slide Deck



Mandatory Training Day Introduces the Performance Triad to All of Army Medicine



Winning Game Plan

-  Smart Training Routine
-  Diet Rich in Nutrients
-  Full Night of Sleep

MOVE OUT WITH THE PERFORMANCE TRIAD

Activity, Nutrition, and Sleep



LEARN MORE ABOUT THE PERFORMANCE TRIAD: **ACTIVITY**, **NUTRITION**, AND **SLEEP**
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HERE IT'S NOT A GAME



SUICIDE PREVENTION: Sustaining the Drumbeat of a Ready & Resilient Force Through Awareness and Action

By Valecia Dunbar, D.M., Army Medicine Public Affairs

September is Suicide Prevention Month and the Department of the Army joins our nation and the world in observing National Suicide Prevention Week from September 8-14, in the U.S. and the World Health Organization's World Suicide Prevention Day on September 10, as part of efforts to promote awareness about suicide and empower individuals and communities to intervene and save lives by understanding the risk factors, warning signs, protective measures, and to take appropriate intervention actions when needed.

The Army's leadership role in the fight to prevent suicide is to increase awareness of the Army's suicide prevention resources, and continued efforts to educate, empower, and equip Soldiers, Families and Department of the Army Civilians to seek help for life stressors and intervene to aid others who display at-risk behaviors. The end state is a more informed and resilient Army Family and a climate where Soldiers, Families, and Civilians seek help when needed and are empowered to intervene and act to save lives.

"We call on each of you to act, know your Soldier, and know the existing prevention resources, said Lt. Gen. Patricia D. Horoho, Army surgeon general and commander of the U.S. Army Medical Command. "These tools are key to self care and sustainment of our Army Family."

In March 2009, in response to a growing number of Army suicides, the vice chief of staff of the Army released the Army Campaign Plan for Health Promotion, Risk Reduction and Suicide Prevention, and chartered the Army Suicide Prevention Task Force and the Army Suicide Prevention Council.

Since that time, the Army has invested tremendous effort in investigating the causes of suicide within its ranks and in implementing policies and programs whose sole purpose is to promote resilience, prevent suicides, and enhance the readiness of the Force. One such program is the Performance Triad which focuses on monitoring one's Activity, Nutrition and Sleep as a means of fortifying Soldiers' readiness and resilience.

In 2012, the Army doubled its efforts towards reducing the stigma associated with seeking behavioral healthcare. To address this tragic problem, the Army has instituted a multi-disciplinary, holistic approach to health promotion, risk reduction, and suicide prevention that addresses the many challenges our Soldiers, Families, and Army Civilians face.

"From our individual Soldiers and Civilians to our units and Families, we must be committed to investing in building enduring strength in a holistic way," said John M. McHugh, secretary of the Army.

On September 27, 2012, the U.S. Army conducted phase one (Awareness and Education) of an Army-wide suicide prevention stand down to empower leaders, Soldiers, Families and Civilians. During phase one, leaders conducted discussions with Soldiers and used the Leader Risk Reduction Tool (specifically developed for this purpose), conducted community and family-oriented events, and identified local programs, and resiliency training. The resources developed and utilized during the stand down are housed on the website of the Army Human Resources Group (Army G-1). The following day, phase two of the

stand down began and continues today. Phase two (Training and Sustainment) will continue indefinitely.

Suicide prevention continues to be one of the most pressing 'Health of the Force' issues. Army leaders are committed to maintaining a supportive environment that improves the physical, emotional, and psychological resiliency of our Soldiers, Families, Civilians and individual/unit readiness. With the implementation of the 2020 Army Strategy for Suicide Prevention, the Army will attempt to shift its culture by increasing the emphasis on leader involvement to protect and promote life.

Army regulations governing health promotion, risk reduction, and suicide prevention describe suicide prevention as a continuum of awareness, intervention, and "postvention" [sic] to help save lives. Ultimately, the goal of prevention is to develop healthy, resilient Soldiers to the point where suicide is not an option.

The Ready and Resilient Campaign (R2C) exemplifies the Army's collaborative, holistic approach which tailors suicide intervention, prevention, and response measures to ensure Soldier resilience. As a comprehensive plan addressing the immediate and enduring needs of the total Army -- Active, Reserve, and National Guard Soldiers, their Families, and Department of Army Civilians, this campaign synchronizes and integrates key Army programs that focus on building resilience, reinforcing prevention, and supporting the reduction of suicide and suicidal ideation, sexual harassment and sexual assault, bullying and hazing, substance abuse, domestic violence; and stigma associated with seeking help.

Suicide is a multi-faceted problem that requires an equally sophisticated response. Life stressors including behavioral health issues, relationship difficulties, physical illness, and financial and legal problems can all weigh heavily on an individual, engendering feelings of burdensomeness and hopelessness. As these difficulties and feelings, real and/or perceived multiply within an individual, suicide can become an increasingly viable solution – a permanent solution for a temporary problem.

“Each suicide is a tragic loss for the Army Family and America,” said Horoho. “As leaders it is our responsibility to end hazing, harassment, discrimination, and any behavior that runs counter to Army values. Empower those you lead to always

intervene and act to save lives.”

For more than a decade, Army leadership has been up front in the creation and establishment of suicide prevention policy and innovative initiatives to bridge available resources with current needs. Over the past several years there has been a decrease in the percentage of Soldiers that hold views that bar them from seeking help. At the same time, the number of Soldiers who are using treatment programs such as behavioral health and substance abuse has steadily increased which indicates Soldiers are overcoming those stigma barriers. It will take time to change this culture, but through actions and example, Army leaders are beginning that transformation.

Defeating suicide will take active involvement from everyone. Get involved

and engage those struggling with setbacks and challenges.

For more information on the Army Suicide Prevention Program and a list of resources: <http://www.armyg1.army.mil/hr/suicide/default.asp>

For current and historical information on Army partnerships and program initiatives to prevent suicide, access the 2020 Army Strategy for Suicide Prevention: http://www.armyg1.army.mil/hr/suicide/docs/2020%20Army%20Strategy%20for%20Suicide%20Prevention_1%20Oct%202012.pdf

For assistance, Soldiers and Family members can contact The National Suicide Prevention Lifeline, 1-800-273-TALK (8255) and Military Crisis Line, 1-800-273-8255.

SEPTEMBER IS SUICIDE PREVENTION MONTH



AROUND ARMY MEDICINE

(Courtesy Photo)



Back to School Health Fair Fort Sam Houston

By Walter Ham, Eighth Army Public Affairs

Brooke Army Medical Center pediatric staff members conduct immunization screenings for beneficiaries during the Back to School Health Fair July 26, at San Antonio Military Medical Center. The staff administered more than 100 immunizations at the event. (U.S. Army photo by Maria Gallegos)

(Courtesy Photo)

LRMC Team Earns Marching Award in Grueling Four-Day, 111-Mile March Landstuhl Regional Medical Center

Germany – Since November 2012, a small team of dedicated Soldiers have been crawling out of bed in the early hours, two to three times a week, to march with each other at times over 25 miles. This sacrifice was in preparation for one of the most arduous and intensely celebrated annual events of modern times, the International Four Days Marches Nijmegen. The first “Vierdaagse,” or four-day march, was held in 1909 as a way of keeping the Dutch army fit after the introduction of motor vehicles. Depending on the age group and category, participants must walk 30, 40 or 50 kilometers each day for four days. Originally a military event with a few civilians, it now is a mainly civilian event. Numbers have risen in recent years, with over 40,000 taking part - including about 5,000 Military. It is now the world’s largest walking event. On July 16, a small contingent of 17 Soldiers from a combined group from Landstuhl Regional Medical Center and U.S. Army Public Health Command Region-Europe joined 31 other countries and 48,000 participants for the first day of this march. Lowland dikes and small villages along the route were crammed with thousands of supporters who cheered everyone along the roadsides. Friendly, smiling faces filled almost every yard and sidewalk along the route. With 48,000 participants filling the street, this caused the team to use cadence calling skills and discipline while marching to drive through the slower crowds. (U.S. Army photo by 1st Sgt. Michael Eldred)



Completing the Savage Race

Aberdeen Proving Ground, MD

Is there a better way to spend a day than to race through an extreme obstacle course and finish exhausted and covered in mud? You may be thinking that there is, but for Lt. Col. Greg Saturday and seven other volunteers on the team from the U.S. Army Medical Research Institute of Chemical Defense (USAMRICD), at Aberdeen Proving Ground, Md., Savage Race was a challenge worth undertaking. MRICD’s team was muddied but triumphant after completing the Savage Race. In the back row, left to right, are Maj. Matthew Wegner, Col. Bruce Schoneboom, Sgt. Marco Acevedo, Lt. Col. Greg Saturday

and James Swails; in the front from the left, Ken Barton, Sofia Elgarresta, and Sgt. Alicia Swails. (Photo courtesy of Mac Stone, provided by Savage Race)



Book Discusses Accomplishments of the Armed Forces Research Institute of Medical Sciences

Borden Institute Releases The Armed Forces Research Institute of Medical Sciences, 1960-2010

This publication captures the significant activities and dramatic achievements in tropical infectious diseases of the Armed Forces Research Institute of Medical Sciences during the last fifty years. Begun in 1959 as a result of the Southeast Asia Treaty Organization, the Thailand SEATO Cholera Research Project in Bangkok, later the Medical Research Laboratory, and finally, AFRIMS (in 1977), was a collaborative research effort between the U.S. Army Medical Department and the Royal Thai Army. Throughout the institute's history, U.S. Army and Thai doctors jointly pursued research and therapy for illnesses that threatened both U.S. troops and Thai citizens, such as cholera, malaria, opisthorchiasis, dengue, Japanese B encephalitis, hepatitis, enteric infections, and HIV/AIDS. Maj. Gen. James K. Gilman, former Commander, USAMRMC, highlights recent achievements, by stating that "AFRIMS provided the clinical trials network for conducting the only successful vaccine trial for human

immunodeficiency virus infection to date." This textbook is now available for online order or PDF download from the Borden Institute Website: www.cs.amedd.army.mil/borden.

The Borden Institute, Army Medical Department Center and School (AMEDDC&S), publishes the Textbooks of Military Medicine. The volumes in the series (now numbering 24) constitute a comprehensive treatise on the art and science of military medicine, covering such diverse topics as biological and chemical warfare, military preventive medicine, military medical ethics, combat and operational behavioral health, harsh environments, and care of combat injuries. Other Borden Institute products include volumes on military medical history, monographs, and specialty titles such as *Emergency War Surgery*. *Borden Institute has published nine books that have won a combined thirteen publishing awards: War Surgery in Afghanistan and Iraq: A Series of Cases, 2003-2007; Pediatric Surgery and Medicine for Hostile Environments;*

Medical Aspects of Biological Warfare; The Walter Reed Army Medical Center Centennial, A Pictorial History, 1909-2009; Answering The Call: The U.S. Army Nurse Corps, 1917-1919: A commemorative Tribute to Military Nursing in World War I; Anesthesia and Perioperative Care of the Combat Casualty; and Legacy of Excellence, The Armed Forces Institute of Pathology, 1862-2011; Military Quantitative Physiology: Problems and Concepts in Military Operational Medicine; and Combat Casualty Care: Lessons Learned from OEF and OIF. In addition to the print version, publications are available in PDF format at the Borden Web site, as well as on CD-ROM. Copies of Borden Institute publications may be ordered free of charge by eligible personnel. Anyone may download PDF versions free of charge. www.cs.amedd.army.mil/borden



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Congratulations Borden Institute

Quantitative Physiology: Problems and Concepts in Military Operational Medicine received Honorable Mention in this year's American Medical Writers Association competition in the Physician Category. The book, which also won a first place in its category in the Washington Book Publishers competition this year, has been deemed one of the best medical books published in 2013 in the nation.

Drawing on decades of research as well as the recent revolution in computer engineering, the work of

military scientists in various disciplines is leading to an "integrated Soldier health and performance model," a model with broader implications in civilian medicine as 10 years of combat draws to a close. Military medicine has pioneered in "convergence science," according to Karl Friedl and William Santee of the U.S. Army Research Institute of Environmental Medicine (USARIEM), "characterized by the increased reliance on mathematics, physics, and computer engineering to solve problems in the life sciences." The Army's efforts to

protect Soldier health and increase warfighting effectiveness have multiple applications in everyday life: in Sleep, Nutrition and hydration, sports and endurance, and protection from injury. This text presents the work of dedicated Army scientists in these fields, in collaboration with academic and industry colleagues, "all committed to the protection of the nation's defenders and the global human family," said former Surgeon General Lt. Gen Eric B. Schoomaker.

DENCOM ‘Go First Class’ Program Improves Army Readiness, Wellness

By Lt. Col. Jeff Marks, U.S. Army Dental Command

Scheduling multiple dental visits will soon be unnecessary for most Soldiers thanks to the Go First Class (GFC) program led by the U.S. Army Dental Command (DENCOM). Under the new initiative, Soldiers will receive routine oral care procedures including exams, cleanings, tooth varnishing, and simple fillings in a single appointment.

“Go First Class addresses several pillars of the Army Medicine 2020 campaign plan including prevention, wellness, and readiness,” said Col. Bryan Kalish, director of Health Care Delivery, at DENCOM. “It helps us transform from a healthcare system, to a System for Health.”

GFC pilot programs were tested at Fort

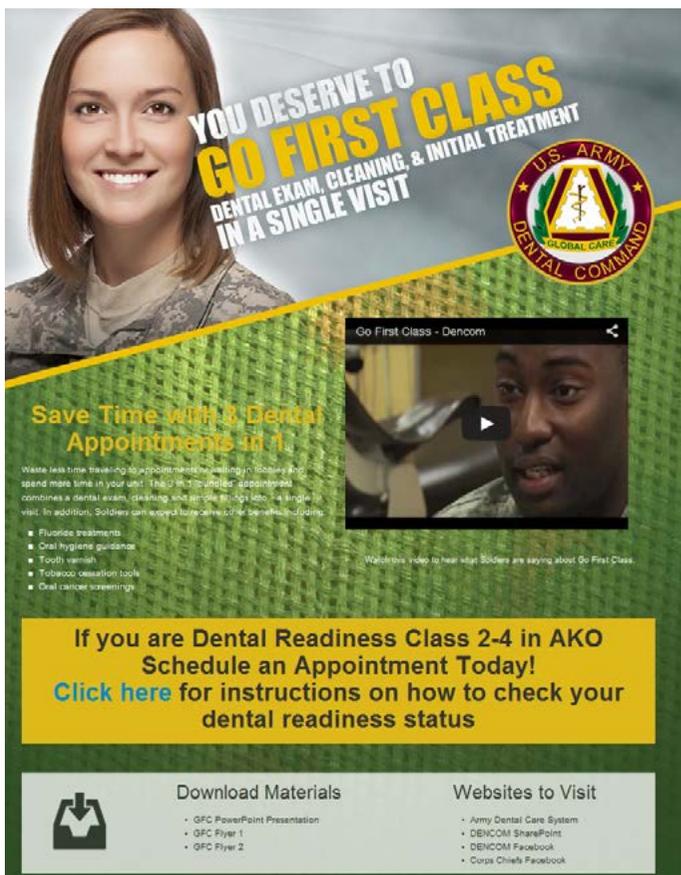
Bliss, Texas and Fort Gordon, Georgia. Results showed significant reductions in the number of Soldiers that are dentally non-deployable (class three or four). At the same time, the number of Soldiers with no dental treatment needs (class one) is on the rise. Through October 1, all dental clinics will be implementing the program.

Bundled services, combined with a shift to scheduled appointments, enables dental teams to treat more patients and increase overall satisfaction. “The feedback I’m getting from commanders and Soldiers is very positive,” said Col. Ken Dunn, director of Health Care Support. “With GFC most Soldiers only need to visit the dentist once a year.

They are away from their units much less.”

As oral health improves, sick days decrease. Workload models predict up to 1.25 million hours of time will be returned to unit commanders Army-wide as a result of the initiative.

Distribution of marketing material is underway and dental officials are briefing unit leaders to increase program awareness. Additional information on Go First Class is available at ArmyGFC.info.

YOU DESERVE TO GO FIRST CLASS
DENTAL EXAM, CLEANING, & INITIAL TREATMENT IN A SINGLE VISIT

U.S. ARMY DENTAL COMMAND

Go First Class - Dencom

Save Time with 3 Dental Appointments in 1

Waste less time traveling to appointments, waiting in tobacco and spend more time in your unit. The Go First Class appointment combines a dental exam, cleaning and simple procedures in a single visit. In addition, Soldiers can expect to receive the following during:

- Fluoride treatments
- Oral hygiene guidance
- Tooth varnish
- Tobacco cessation tools
- Oral cancer screenings

Watch this video to hear what Soldiers are saying about Go First Class.

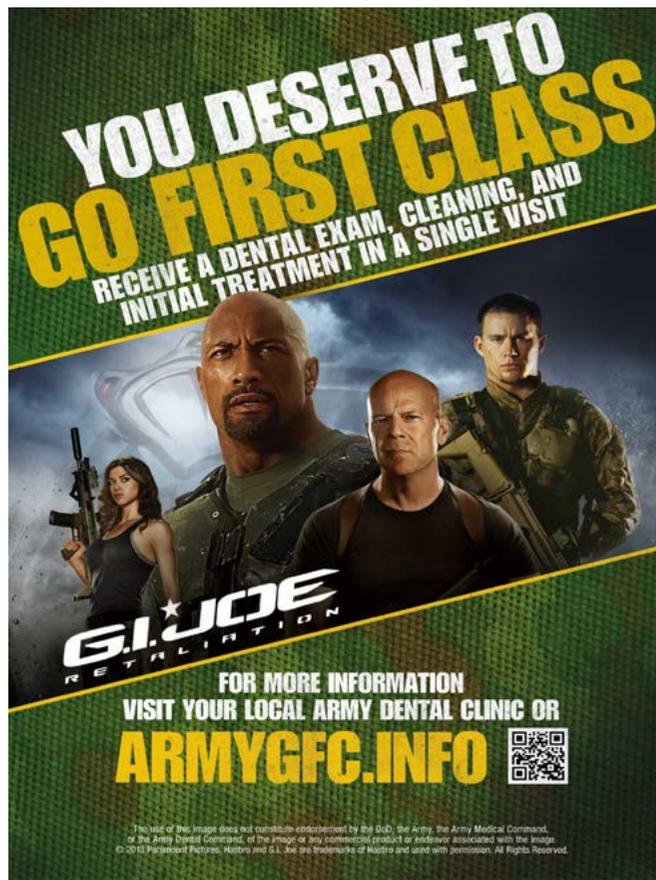
If you are Dental Readiness Class 2-4 in AKO Schedule an Appointment Today!
[Click here](#) for instructions on how to check your dental readiness status

Download Materials

- GFC PowerPoint Presentation
- GFC Flyer 1
- GFC Flyer 2

Websites to Visit

- Army Dental Care System
- DENCOM SharePoint
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YOU DESERVE TO GO FIRST CLASS
RECEIVE A DENTAL EXAM, CLEANING, AND INITIAL TREATMENT IN A SINGLE VISIT

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FOR MORE INFORMATION VISIT YOUR LOCAL ARMY DENTAL CLINIC OR

ARMYGFC.INFO

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Army Spouse Gets a Chance at Life Thanks to Medical Breakthrough at LRMCM

By Sgt. 1st Class Randall Jackson, 30th Medical Command Public Affairs

When a patient's life depends on a 13-hour flight and a complicated lung bypass machine for survival, there's a lot of fear that something could go wrong. But for the wife of an Army Soldier stationed in Germany, it was not only a smooth medical evacuation flight across the Atlantic, but also a first in military medicine.

On July 10, a team from Landstuhl Regional Medical Center flew an Army spouse from Ramstein Air Base, Germany, to the San Antonio Military Medical Center in Texas (SAMMC) while connected to a portable lung bypass machine called ECMO, which stands for Extracorporeal Membrane Oxygenation. The machine oxygenates the patient's blood outside their body, allowing the organs to rest and recover on their own.

So far the specialized 6-person Acute Lung Rescue Team from LRMCM has flown American, British and Italian military patients from downrange to LRMCM since 2010, but this was the first transatlantic flight in the history of ECMO. Until now, the patients have been mostly service members injured in Afghanistan, but this patient, who has spent the past four months in a German hospital, shows how ECMO is increasingly being used to save lives under different scenarios.

"We're nervous, but excited that the technology is available for Soldiers and spouses alike, and that they care as much for the Family members as they do for the Soldiers," said the husband. "She's getting the exact same



Air Force Lt. Col. (Dr.) David Zonies, the LRMCM Acute Lung Rescue Team leader, checks on his patient before she is medically evacuated to the San Antonio Military Medical Center in Texas. The Army wife is the first patient to be flown across the Atlantic while on the Extracorporeal Membrane Oxygenation machine. (U.S. Army photo by Sgt. 1st Class Randall Jackson)

support as a Soldier." The husband and patient both wish to remain anonymous; however, the medical care they received made military medical history.

"It's a huge milestone, a breakthrough on many levels," said Air Force Lt. Col. (Dr.) Jeremy Cannon, the SAMMC's ECMO team leader. "From technology application to team development, to systems development, to standing up ECMO capabilities here in Germany and in San Antonio, it's a major breakthrough."

And it happened fast.

"I talked to the American doctors about six days ago about moving her to the states. Once they decided to move her to the states, it happened really quickly," said the husband.

In addition to helping the patient, the transfer is also a chance for the LRMCM Acute Lung Rescue Team to validate the skills of the San Antonio Military Medical Center's ECMO team who have plans to make this a regular mission.

"The ultimate goal is that we have a global reach capability so that there can be a team based here in Europe,



the U.S., and a team based in the Pacific so that we have the ability to move patients anywhere on the globe to this central ECMO center in San Antonio,” said Air Force Lt. Col. (Dr.) David Zonies, the LRMC Acute Lung Rescue Team leader.

“In addition to the training platform in San Antonio, our relationship started with the University Hospital in Regensburg, Germany, which is a regional center that does ECMO care and one of the world’s leading experts, and a great resource available to us,” added Zonies.

Even though Regensburg University Hospital has supported U.S. and NATO patients in the past, the DOD is now able to provide that care.

“The advantage of this change is to maximize the trauma care that they receive,” said Air Force Maj. Michelle Langdon, a registered nurse and the ECMO program coordinator at LRMC. “Regensburg is not a trauma center, and the wounds that our warriors receive in battle are very difficult for them to maintain and manage with their other patient load. So the advantage to this is that our patients will be repatriated into our trauma system and receive that same level of care.”

The LRMC team plans to continue their ECMO training quarterly, including in-flight practice, hoping to use their skills to save more lives in the future.

“It makes me excited and happy that the capability is there and that they’re able to do it in such a quick fashion,” said the patient’s husband.



A nurse from Landstuhl Regional Medical Center holds the hand of a patient before her historical medical evacuation flight to the states in July. The patient, an Army wife, is the first ever to be flown across the Atlantic while on ECMO, a specialized lung bypass machine. (U.S. Army photo by Sgt. 1st Class Randall Jackson)



A team of doctors and nurses from Landstuhl Regional Medical Center and San Antonio Military Medical Center oversee the transport of a patient, an Army wife, during her medical evacuation to the States. She is the first-ever patient to be flown across the Atlantic while on a specialized lung bypass machine. (U.S. Army photo by Sgt. 1st Class Randall Jackson)



Saving Lives by Saving Blood

By Jeffrey Soares, USAMRMC Public Affairs

In an age of ultra high-tech devices that are worthy of screen time in a big budget Hollywood action movie, one might be surprised to discover that a very “unglamorous” and simplistic medical device is being developed by the Combat Casualty Care Research Program (CCCRP) of the U.S. Army Medical Research and Materiel Command, Fort Detrick, Md., that may soon save lives on the battlefield and beyond.

“Hemorrhage is the leading cause of death on the battlefield, and one of our most challenging forms of hemorrhage has been junctional hemorrhage [the junction of the legs or arms with the torso], or hemorrhage from deep wounds on which it is impossible to put a tourniquet or apply manual compression externally,” said Dr. Anthony Pusateri, portfolio manager of the Department of Defense Hemorrhage and Resuscitation Research and Development Program, managed by the CCCRP.

Cue XSTAT is the new device so practical, one will wonder how the medical field has not thought of it until now. Simply put, the device looks like a large plastic syringe filled with many small, pellet-shaped sponges that enlarge to fill up a wound area quickly to prevent blood loss.

“This XSTAT device allows the haemostatic material to be put [injected] into the wound tract, and then it expands from the inside out, putting pressure on the bleeding to stop it,” said Pusateri. “It is a capability that has never existed before, and can be used in the field setting by medics,

possibly even with buddy aid [first aid administered by battlefield ‘battle buddies’].”

As the portfolio manager, Pusateri must orchestrate matters among the various armed services and the company in charge of production who are collaborating for the successful development and release of this new medical device. However, as he states, Pusateri came into the project during its later development, at the time the Army took over management of the program.



The XSTAT device injects pellet-shaped sponges that enlarge to fill up a wound area quickly to prevent blood loss. (Courtesy photo)

“This project started with the United States Special Operations Command (USSOC), who was working with medical technologies to conduct the initial work,” he said. “The research looked promising enough that the Army chose to fund it through its completion.”

While the current version of the device is useful for large wounds, Pusateri said that the next iteration will be one suited for narrower wound tracts. Due to the location of the target wounds, the original concept was

for a common-size wound tract. As development progressed, the researchers found that in some cases, the wound tract is smaller, and it would not take much modification to create a smaller device to place into the wound. Pusateri said that the applicator will be narrower, although the sponge-like product inside will be the same size.

When asked about the timeframe for U.S. Food and Drug Administration approval, Pusateri said it should most likely receive approval during this summer.

“We have not identified any significant problems, and we expect it will fill a capability gap that we’ve had for quite some time,” he said. “Upon FDA approval, the device will be commercially available off the shelf. I expect that a private sector partner will do an initial production run.”

While the XSTAT device is certainly small and light enough to be carried in military aid bags or combat lifesaver bags, Pusateri said this does not guarantee its use as standard military medical equipment.

So why wouldn’t the military want to have this in every warfighter’s bag?

“Well, for one, this doesn’t solve all of our bleeding problems,” said Pusateri, “but it does fill a capability gap for use on a wound area where you could not place a bandage or tourniquet.”

“It’s primarily intended for deep wounds with heavy bleeding inside, with no way of putting direct pressure on the wound, and no way to wrap a tourniquet around it. Basically, it’s designed for use in the axillary and inguinal regions, or the junction of



the legs and arms with the torso – too high for a tourniquet and too deep for a dressing.”

Pusateri added, “Any new item must be considered along with all of the others items that medics, or others, must carry. Many factors come into play for the final fielding decision. In the Army, the Directorate of Combat and Doctrine Development at the U.S. Army Medical Department Center and School and the U.S. Army Medical Materiel Agency will play major roles in fielding decisions.”

Despite its specificity – or perhaps because of it – the XSTAT device seems

to be a necessary part of the future of both military and civilian medicine, and it is a perfect illustration of creating a medical item to satisfy a critical need in the field.

“This is a good example of very innovative and thorough work done by USSOCOM to get this started, working with the initial lead company,” said Pusateri, “but it is also an example of excellent cooperation and communication in a joint environment, between USSOCOM and the U.S. Army.”

“This could certainly be a significant

advance in our ability to control hemorrhage, both on and off the battlefield,” said Pusateri.

While the XSTAT device is currently on the forefront of the CCCRP’s work, Pusateri said that his group continues to work on developing blood-related items to help save lives. On the horizon, the CCCRP is researching dry plasma products to help restore/replenish blood loss quickly and help make the body more resistant to the detrimental effects of severe bleeding.

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Best foot forward: Cadets 'step into' foot research

By Kathy Eastwood, Pointer View Staff Writer

We are all constantly on our feet. We walk, run, jog, stand, and depend on our feet to support body weight. A research study originating out of Keller Army Community Hospital at West Point is seeking to profile the incidence of arch height and stiffness in military trainees and the correlation to overuse injury. The foot study involves more than 1,000 cadet volunteers and their Army-issued boots.

The study, initiated by Col. Michael Neary, a podiatric surgeon at Keller Army Community Hospital, and Dr. William Brechue, a Department of Physical Education professor, involves researchers from the U.S. Military Academy, New York College of Podiatric Medicine, the Hospital for Special Surgery in New York, Temple University in Philadelphia, and Novel Electronics.

When Neary arrived at West Point in 2010, he soon realized the instruments he used were somewhat limited. "I knew the instrument we used for prior boot fitting efforts wasn't functional (to study foot structure)," says Neary. He came to this conclusion while considering the relationship between proper boot fit and injuries he would see as a podiatrist on post. This concern was urgent because he also inherited the task of setting up the boot fitting for the next incoming class.

The study design began to take shape when Rebecca Zifchock, an associate professor in West Point's Civil and Mechanical Engineering Department, and Dr. Howard Hillstrom from the Hospital of Special Surgery in New York, came on board to discuss a possible foot structure study and thought an arch height measuring

device they previously used might be a better method of measuring the incoming cadets for footwear.

"The arch height measuring device gives an objective measure on arch height," said Neary. "What Lt. Gen. David Huntoon Jr. (former USMA Superintendent of West Point) wanted was a good fitting boot. If the boot doesn't fit right, it can slow the cadets down and cause injuries. We knew we couldn't pass this study by."

Funding for the measuring devices came from the Center for Innovation and Engineering, directed by Lt. Col. Bruce Floersheim. In addition to investigating a more effective method for fitting footwear, the team set out to collect data from the cadet volunteers on their foot structure and function.

"We are measuring static and dynamic characteristics of foot structure and function in the incoming cadet class in order to understand what this population generally looks like in terms of the proportion of high and low arches, flexible, and rigid feet," Zifchock said. "We will then track their incidence of overuse injury to see if this correlates to their foot structure and function."

Hillstrom said a cadet will carry an additional 60-90 lbs. during a ruck march, a significant increase in body loading that only gets higher as training progresses. "It is an important question to find out if the cadets have changes in foot structure and function, and if the changes are temporary or permanent," said Hillstrom. "The extra weight and the training cadets go through predispose cadets to injury."

The team will follow the cadets and measure their feet at regular intervals throughout their time at West Point to check for changes in foot structure

resulting from training.

The arch measuring device provides information on arch height and stiffness, and functional data on how the foot reacts to the load of walking. The data was collected by pressure sensor mats from industry collaborators at Novel Electronics.

"Novel gave us two pressure sensor machines and Temple University and the Hospital for Special Surgery had three additional systems we could use," said Neary. "The collaborators also provided the manpower to run the software and hardware."

The new cadets' feet were measured by students and faculty from Temple University, the New York College of Podiatric Medicine and the Hospital for Special Surgery. Eighty volunteers organized the research in coordination with the boot fit.

"For some perspective, it takes about 10 years to gather that many subjects for a study," Neary said. "We did it in two days with our team."



A Temple University student prepares a new cadet's foot to have it photographed to be viewed at a later date for a study of the foot structure and function in cadets during training. The project involves West Point, the Hospital of Special Surgery in New York, Temple University, and the faculty of the New York College of Podiatric Medicine. (U.S. Army photo by Kathy Eastwood)

Soldiers with Army Mobile Entomology Lab Work to Prevent West Nile

By Heather Graham-Ashley, Fort Hood Sentinel News Editor

Fort Hood's preventive medicine Soldiers are working collectively with Carl R. Darnall Army Medical Center (CRDAMC) officials to prevent West Nile virus cases on the installation, one bug at a time.

West Nile is a virus most commonly spread by infected mosquitoes. The virus can cause febrile illness, inflammation of the brain, or meningitis, which is inflammation of the lining of the brain and spinal cord, according to the Centers for Disease Control and Prevention.

Each year for the past two years, from April through September, Soldiers assigned to the 224th Preventive Medical Detachment (224th Prev. Med. Det.), 61st Multi-functional Medical Battalion, and 1st Medical Brigade, head out into Fort Hood Family Housing to set traps to test mosquitoes for West Nile.

Mosquito traps are set in housing areas that have been deemed ideal areas for a mosquito population. Traps and their contents are retrieved the following morning and taken to the 224th's mobile entomology lab, the only operational one of its kind in the Army.

Although CRDAMC started surveillance of West Nile in 2005, capturing and testing really heated up last year, said Capt. Amanda Gonzalez, medical entomologist, CRDAMC. According to Gonzalez, Fort Hood had two or three diagnosed cases of West Nile virus in 2012.

This year more than 4,000 mosquitoes have been collected and no West Nile has been found so far, but the risk remains.

"Last year, the focus was in the housing areas," she said. "With all of the construction going on, a lot of places (of focus) have moved."

The concentration for the testing remains in housing even though exact locations change when conditions evolve. Other gathering efforts for the virus on the eastern side of the installation are conducted by 3rd Cavalry Regiment Soldiers.

"Locations are random and based on standing water and complaints from residents," said Gonzalez. Standing water creates the ideal breeding ground for mosquitoes that can carry dangerous diseases such as West Nile virus.

West Nile virus is most dangerous for the elderly, the very young, and those with a compromised immune system. For most of the population, the virus manifests as flu-like symptoms with mild headaches, Gonzalez added.

"The average Soldier has probably had it and didn't even know it," she said.

At the lab, which is located in the unit's motor pool, the traps are frozen to knock down the mosquitoes and other insects. "Testing centers mostly on the females because they are the only mosquitoes that suck blood," said Capt. Juree Johnson, entomologist and executive officer, 224th Prev. Med. Det.

After freezing, each trap is emptied individually and first insects other than mosquitoes are removed, then male and female mosquitoes are sorted by sex. Males are distinguished by their plumed "mustaches."

Specimen are placed in vials by sex and location of capture and delivered to Gonzalez. She then ships the mosquitoes to Public Health Command in San Antonio for testing. Gonzalez receives the test results back and shares them with Fort Hood and posts the threat level on CRDAMC's website.

"We've been at level 2 (low)," Gonzalez said, noting that 25 mosquitoes considered West Nile capable have been captured.

West Nile virus was first detected in North America in 1999, and has since spread across the continental U.S. and Canada. For those concerned about the virus, there are steps residents can take to help prevent West Nile.

Eliminating standing water from pools, toys, tires and other objects lying around helps by removing opportunities for infected females to lay their eggs since water is needed for the larva, Gonzalez said. "That's the No. 1 way. Without water, they have nowhere to lay their eggs."

If an outbreak were to occur, Soldiers from the 224th have a plan and the equipment to eliminate the threat.

"We have truck-mounted, backpack and hand can sprayers," said Johnson.

But, the entomologists stressed, they do not want to use chemicals haphazardly.

"Last year, the focus was on prevention through habitat modification and control," said Gonzalez.



Spc. Maxwell Murray, 224th Prev. Med. Det., sets up a light trap to attract and capture mosquitoes as part of ongoing efforts to detect and prevent West Nile virus cases on the installation. Traps are set up each week from April through September to test for mosquitoes carrying the virus.

Army, Air Force Team Achieves Historic Trans-Atlantic Medical Mission

By Elaine Sanchez, BAMC Public Affairs

A Brooke Army Medical Center team made medical history last week by completing the military's first trans-Atlantic movement of an adult on external lung support.

A team of Army and Air Force doctors and nurses treated the patient with extracorporeal membrane oxygenation, or ECMO, during a nonstop C-17 Globemaster III flight from Germany to San Antonio -- a 5,000-mile, 11-and-a-half-hour trek.

ECMO is a lifesaving heart-lung bypass system that circulates blood through an external artificial lung before sending it back into the patient's bloodstream, giving a critically ill patient's lungs or heart time to heal, explained Air Force Lt. Col. (Dr.) Jeremy Cannon, ECMO director and trauma chief at San Antonio Military Medical Center, BAMC's inpatient facility here.

"This historic mission was a true demonstration of our commitment to caring for service members and their families," Cannon said, "no matter how ill or far away they are."

Cannon first learned of the patient, an active-duty Army spouse, late last month. She had been admitted to a German civilian hospital with a respiratory illness that was compounded by infection. She was treated and released to a rehab center, but a downward spiral in her health spurred her German providers to initiate ECMO.

The German doctors soon after contacted Air Force Lt. Col. (Dr.) David Zonies, medical director of the ECMO program at Landstuhl Regional Medical Center in Germany. With Cannon's consensus, they decided the best course

of action would be to bring the patient to SAMMC, where she could be provided expert ECMO care around the clock.

The hospital is one of a few adult ECMO-capable medical facilities in the nation. The treatment is commonly used in neonatal intensive care units around the world on newborns, including at SAMMC, but adult applications are just now emerging. Convinced by past successes and new data supporting the use of ECMO in adults, Cannon spearheaded the effort to offer the treatment here several years ago. In October 2012, he oversaw the care of the hospital's first adult ECMO patient, and BAMC leadership officially stood up the program in May.

After the call from Zonies, Cannon swiftly assembled an ECMO team and flew to Germany while the patient was moved from the German hospital to Landstuhl. The following morning, they boarded a C-17 and flew nonstop to Kelly Air Force Base in San Antonio, where they arrived July 10. A quick ambulance ride later, and the patient was admitted and moved to the ECMO unit in the Institute of Surgical Research Burn Center located in SAMMC.

Although still on ECMO, the patient is doing well, Cannon said. "She even asked for pancakes in Germany, but had to settle for a popsicle instead," he recalled with a smile. "But we made sure she got her pancakes here."

"The trans-Atlantic trip signified the last piece of the ECMO puzzle at BAMC," Cannon noted. He had long envisioned a program in which ECMO patients could be transported directly from the battlefield to a stateside location, such as SAMMC, for their recovery. The ultimate vision,

he said, is to create a military ECMO network around the world to ensure wounded and other critically ill service members and beneficiaries can receive the most advanced care available anywhere.

"We've proven we can very safely take care of even the most critically ill patients within the military health system," he said. "I look forward to a future in which these types of missions aren't a 'first,' but a routine part of our mission."



A specialized medical team ensures a patient is safe and ready for takeoff in July from Ramstein Air Base, Germany. A team of Brooke Army Medical Center doctors and nurses treated the patient with extracorporeal membrane oxygenation, or ECMO, during a nonstop C-17 Globemaster III flight from Germany to San Antonio. (U.S. Air Force photo by Senior Airman Hailey Haux)

Public Health Commander Leads by Example

By Jane Gervasoni, U.S. Army Public Health Command

Maj. Gen. Dean G. Sienko, commander, U.S. Army Public Health Command, understands the importance of a ready and resilient force. He has deployed to Kosovo and Kuwait, and he knows how the Army surgeon general's Performance Triad of Activity, Nutrition and Sleep can affect the health of deployed Soldiers as well as those who support them. That is why Sienko made a visit to the Army Wellness Center, Aberdeen Proving Ground, Md., one of his first priorities.

"I was excited to learn how the services such as metabolic testing, nutrition counseling and stress management are being used to teach Soldiers, Civilians, Retirees and Family members how to be healthy," Sienko, who is also a physician, explained.

Todd Hoover, USAPHC Wellness Center Operations Program manager, led Sienko through the steps that all AWC clients experience when they make an appointment at an AWC.

All clients need to complete the Health and Wellness Questionnaire, a six-page, comprehensive health assessment that asks questions about sleep habits, nutrition, fitness and overall well-being. This questionnaire is located in the online Soldier Fitness Tracker AWC portal.

"The Soldier Fitness Tracker AWC portal gives us a snapshot of where people are before we begin a program," Hoover explained to Sienko. "Responses provide a 'wellness' score that lets us tailor services to meet each client's needs."

Hoover used resting metabolic testing to provide Sienko with nutrition information such as the number of calories needed to maintain basic body functions such as heart beat, breathing and normal body temperature.



Maj. Gen. Dean G. Sienko, commander, U.S. Army Public Health Command, listens as Todd Hoover, Army Wellness Center Program director, explains how metabolic testing equipment measures the amount of oxygen an individual uses to sustain normal functions. (U.S. Army photo by Graham Snodgrass, U.S. Army Public Health Command)

Then Sienko went on a treadmill to determine his cardio-respiratory fitness level.

"The screening information combined with metabolic testing, body composition testing and other information allows our health educators to write an exercise prescription to help meet the needs and goals of the clients," said Hoover.

The exercise prescription helps clients to set small attainable goals and helps them learn strategies for enhancing their health.

"I am very pleased with my tailored fitness and nutritional plan that incorporates cardio, strength training and a balanced diet," Sienko said. "The evaluation results give me some insights on areas where I would like to improve, and I look forward to the next evaluation of my progress."

Sienko's background as a civilian public health expert makes him a committed advocate of prevention as the best way to build and sustain good health. AWCs offer programs and services that help their clients achieve healthy lifestyle changes and

prevent or mitigate chronic diseases like diabetes, heart disease and stroke. Their programs are individually tailored to meet client goals and address the whole person—body, mind and spirit.

"Army Wellness Centers provide an overall assessment and the integration of a holistic approach to wellness, and Todd Hoover and the staff at the Army Wellness Center APG demonstrate a high level of expertise," said Sienko.

Chris Sorrells, AWC APG's director, said she was very pleased that Sienko had come to the AWC. She explained that since the opening in January, more than 550 clients from all over the APG area have used AWC services.

Sorrells encouraged others to make an appointment for a wellness assessment at the AWC, located at Kirk Army Health Clinic at APG-North.

"The Army Wellness Center Program offers a great opportunity for everyone in the Army family," said Sienko. "If you haven't been to an Army Wellness Center, it is important that you go. This has been a valuable experience for me and my health."



Maj. Gen. Dean G. Sienko, commander, U.S. Army Public Health Command, works out on a treadmill to determine his exercise metabolic rate and assess his cardio-respiratory fitness level as Todd Hoover, Army Wellness Center Program Director, monitors his progress. (U.S. Army photo by Graham Snodgrass, U.S. Army Public Health Command)

Technology & Research

Operation Live Well Delivers First of Healthy E-Books

Operation Live Well wants to make cooking healthy, home-cooked meals more affordable and easy for you. The first downloadable e-book produced by Department of Defense's wellness initiative went live today and features recipes for a range of healthy dishes, from breakfast items to soups, salads, vegetarian options and desserts. There's even a cooking glossary to explain kitchen terms to new cooks. The e-book was an effort by the internal team to collect recipes they use with their own families and is designed to help make the healthy choice easier for the military community. All of the recipes included in the e-book are dietitian-approved. Visit the nutrition section of the

Operation Live Well page on Health.mil to download and print your copy today.

Have you downloaded your copy of the Operation Live Well recipe e-book yet? Go to: health.mil/Libraries/olw-materials/2013_OLWRecipeEbook.pdf?download=true

Operation Live Well's second e-book is now LIVE on Health.mil. This edition is about growing and using fresh herbs in your meals and it also includes suggestions for pairing herbs with your favorite dishes.

DIRECT E-BOOK LINK:
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Herb book



Cook book

What is 'Moving Forward?'

The Moving Forward training program is based on Problem-Solving Therapy and teaches skills for overcoming life problems. Its goals are to improve optimism, reduce stress, improve emotional regulation, reduce avoidance and teach thoughtful, planful problem solving skills. It helps a person better understand their own problem-solving abilities and teaches new skills to overcome the challenges of solving things from daily nuisances to making major decisions.

The training program features first-person stories, video exercises, surveys and resources to help anyone understand the importance of problem-solving skills.

The web course is based on a highly effective cognitive-behavioral treatment program developed by Drs. Arthur and Christine Nezu and used successfully with Veterans across the country during the past

several years

StartMovingForward.org can be used on a mobile tablet but is not optimized for a smart phone. A companion mobile application, planned for release in early 2014, will provide quick, streamlined access to the training and tools of the web course.

Moving Forward, a self-help web course at www.StartMovingForward.org, is a joint development of the Department of Defense and Veterans Affairs to teach skills for overcoming life problems. The site, launched in November 2012, was designed for military service members, Veterans and their Families.

For more information about StartMovingForward.org, contact the National Center for Telehealth and Technology Public Affairs Office at publicaffairs@t2health.org.

The advertisement features a photograph of a soldier in full combat gear, including a helmet and a rifle, standing in a field. The text at the top reads "Are you stuck? StartMovingForward.org can help you!". Below the photo, it says "StartMovingForward.org gives you problem-solving skills to make better decisions. Find new ways to get answers and make life easier." At the bottom, there are logos for the Department of Defense and Veterans Affairs, along with the text "MOVING FORWARD OVERCOMING LIFE'S CHALLENGES" and "Are you ready to Move Forward?" followed by the website URL www.StartMovingForward.org.



Serving To Heal...Honored To Serve