Navy Surgeon General Stresses Importance of “Bench to Bedside” Medical Research

By Cmdr. Cappy Surette, Bureau of Medicine and Surgery Public Affairs

LANSDOWNE, VA -- Navy Surgeon General, Vice Adm. Adam M. Robinson, Jr. discussed the importance of military medical research earlier this month at the inaugural Navy Medicine Research Symposium held at the National Conference Center, Lansdowne, Va. Hosted by the Navy Medical Research and Development Center, the conference focused on addressing critical advances in unique medical needs of the warfighter, especially wounded Sailors and Marines over the full continuum of care.

Speaking to an audience comprised of the military medical research community, Robinson emphasized the need to focus on advancements that have the most immediate and direct impact on the warfighter, to include mental health care for those wounded warriors who may be suffering from operational combat stress, post-traumatic stress disorders (PTSD), or Traumatic Brain Injury (TBI).

“We have numerous programs that are in place, both in Iraq and Afghanistan and at Navy hospitals throughout the United States, to help warriors transition from the combat zone to the home front, but we can do more in the research and development arena to help these warriors,” said Robinson. “We must always strive to do better.”

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April marks the Department of the Navy’s observance of Month of the Military Child.

The physical, mental, emotional, and spiritual health and fitness of each individual is critical to maintaining an effective fighting force. When our Sailors and Marines deploy, our families are their foothold. A vital aspect of caring for our warriors is also caring for their families and we continue to look for innovative ways to do so.

Today, there are nearly 2 million American children and youth under 18-years-old with a parent serving in the military and approximately 900,000 children and youth with one or both parents deployed multiple times. Research has shown us that continued and repetitive deployments can have a psychological impact on family functioning and we’ve seen an uptick in utilization of both inpatient and outpatient behavioral health admissions for children. More than 1 out of 3 military personnel who have been killed in the Iraq war have been parents, most with children younger than ten years of age. In addition, we’ve seen symptoms associated with PTSD or other mental health conditions have impacts on family functioning, and child adjustment across a range of contexts.

To meet this growing challenge, Navy Medicine began an unparalleled approach in 2007 called Project FOCUS (Families OverComing Under Stress) to help our families. FOCUS is a family-centered resiliency training program based on evidenced-based interventions that enhances understanding, psychological health and developmental outcomes for highly stressed children and families. FOCUS has been adapted for military families facing multiple deployments, combat operational stress, and physical injuries in a family member. It has demonstrated that a strength-based approach to building child and family resiliency skills is well received by service members and their family members reflected in high satisfaction ratings.

Notably, program participation has resulted in statistically significant increases in family and child positive coping and significant reductions in parent and child distress over time, suggesting longer-term benefits for military family wellness.

While FOCUS is one way we are providing care to our families, we must strive to do more. Navy Medicine will do whatever it takes to deliver the highest quality care that is centered not just around the Patient but also around the Family.

“Navy Medicine will do whatever it takes to deliver the highest quality care that is centered not just around the Patient but also around the Family.”

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

I am proud and amazed by the stories I hear of your achievements in the field. Please continue to work hard and stay safe. 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 Medicine Puts a FOCUS on Building Family Resiliency

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

Wartime deployment takes a toll on both the service member and family members on the home-front with multiple deployments often compounding existing stress. Post traumatic stress, other mental health conditions, and physical injuries in a military parent are likely to disrupt family roles, sources of care, and instrumental support.

To meet this challenge, Navy Medicine developed Project FOCUS (Families OverComing Under Stress) to serve the growing need of military families and children.

FOCUS is a family-centered resiliency training program based on evidence-based interventions that enhances understanding, psychological health, and developmental outcomes for highly stressed children and families. In January 2009, the BUMED Family Programs Division was stood-up under the Deployment Heath Directorate in the Wounded, Ill, and Injured Warrior Support Command of BUMED and now oversees FOCUS training.

"Project FOCUS is unprecedented within Department of Defense medical commands," said Kirsten Woodward, director of Family Programs Division, Bureau of Medicine and Surgery (BUMED). "A family programs division has never been established," Woodward added. "It has responded to the importance of family readiness and preparedness through unprecedented programming that Navy Medicine has to offer."

FOCUS is an 8 week, skill-based, trainer-led, intervention that addresses difficulties that families may have when facing the challenges of multiple deployments and parental combat related psychological and physical health problems.

The program provides structured activities to bridge gaps in shared family understanding that may follow stressful experiences and separations. FOCUS uses family training techniques to highlight areas of strength and resilience in the family and promote family growth to help address daily challenges.

Today, there are nearly 2 million American children with a parent serving in the military and approximately 900,000 children and youth.

In the memo, Gates also requested the development of a tailored plan to provide Research and Development investments that advance state of the art solutions for world class medical care with an emphasis on PTSD, TBI, prosthetics, Restoration Sight Eye-Care, and other conditions directly relevant to the injuries our soldiers are currently receiving on the battlefield.

Attendees at the symposium discussed how they are working to support leadership’s call to tailor Navy medical research to support today’s military personnel who are working in difficult operating environments.

"Through a translational research effort involving clinicians, scientists and residents, we have determined that it is not just the physical destructive nature of the wounds that we see, but the body’s response to that injury that requires multiple resources to treat," said Cmdr. Eric Elster, director of Traditional Research at the Navy Medical Research Command. "By measuring and fine-tuning this response, we are attempting to transform combat casualty care."

The Navy’s Surgeon General also shared his views on how the Navy Medical Research community directly supports the Maritime Strategy.

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FOCUS

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with one or both parents deployed multiple times. Continued and repetitive deployments can have a psychological impact on family functioning according to research. In the past five years there has been an increase in both inpatient and outpatient behavioral health admissions for children.

“For the kids, learning ‘hands on’ with different skills and activities [was significant].” The feeling thermometer was great. For the adults having a place to talk with someone about challenges/issues going on is important,” a FOCUS family member said.

In both group and individual family service settings, family members are taught skills to improve emotional regulation, problem solving, goal setting, and communication.

“The trainer’s ability to help each of us see situations from each other’s vantage points as parents, teenagers, and children [was helpful]. I feel we gained valuable insights and tools – and ended up with more acceptable expectations and understanding,” added another FOCUS family participant.

Notably, program participation has resulted in statistically significant increases in family and child positive coping and significant reductions in parent and child distress over time, suggesting longer-term benefits for military family wellness.

In June 2009, the Office of the Secretary of Defense Child and Family Policy determined FOCUS as a best practice program and requested the support of BUMED to expand to select Army and Air Force sites for services. To date over 97,000 service members, spouses, children and community providers have received services on FOCUS.

“Navy Medicine will continue to embrace all the services through Project FOCUS with expansion to other Navy Medicine locations to support psychological health,” said Woodward. “Integration with Navy line perspective is being developed.”

For more information visit: www.focusproject.org.

The time map helps to ease anxiety for children whose parent is deployed. Each month from the date of deployment, a new pair of boots is put down so the child can track how long until their parent returns. (Official Navy Photo)
NMRC Advances Development of Travelers’ Diarrhea Vaccine

From Naval Medical Research Center Public Affairs

The Naval Medical Research Center (NMRC) signed a major research agreement with an industry partner to accelerate development of a promising new vaccine against enterotoxigenic E. coli (ETEC), the predominant cause of travelers’ diarrhea. Historically, diarrhea has caused substantial illness for deployed military personnel and the disease still has the potential to negatively impact operational missions today.

“We have agreed to share Navy Medicine’s depth of expertise and capabilities with Sanofi Pasteur to develop this much-needed vaccine,” said Capt. Stephen Savarino, leader of the NMRC research team that invented and put into practice the new vaccine technology.

“In turn, our industry partner will commit their extensive resources and technical expertise to expedite its development. We believe this vaccine has the potential to curtail the number and severity of food borne illnesses due to ETEC, and it may also decrease the risk of postinfectious irritable bowel syndrome, which afflicts one in ten who experience travelers’ diarrhea.”

ETEC, a bacteria that causes infectious gastroenteritis and dehydration, has been a major focus of research by the NMRC team for many years. Together with their partners at the University of Colorado (UC) Denver, they developed an innovative vaccine technology that is at the crux of the new four-year cooperative research agreement between NMRC and Sanofi Pasteur. If this pre-clinical research effort proves successful, it will serve as the basis to launch the full-scale clinical development of a multivalent adhesin-based ETEC vaccine.

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MLG (FWD). "When we have patients come in here, we bring them to the emergency room area and treat them until they [begin to stabilize]. Then we take them to the operating room where they undergo surgery. Once we stabilize them in the operating room, we'll fly them to one of the higher level of care hospitals. We usually don't even wake them up from their anesthesia before they get to the next hospital."

According to Mann, 41, from Boise, Idaho, as a field trauma center, they stabilize the patients until they are evacuated to a higher level of care at Camp Bastion or in Kandahar province.

In addition to treating service members, they also treat wounded local nationals, including children.

"We're the busiest Shock Trauma Platoon," said Lt. Cmdr. Wendy Stone, senior nurse with Alpha Surgical Company, 1st Medical Bn., 1st MLG (FWD). "We’ve had several children with burns. On two different occasions, little kids have brought [improvised explosive devices] into the house, thinking they’re toys and [the IEDs have exploded in the house]. We have to hold them for a week or two so we can treat the burn because there's not a lot of alternative for us to send the families."

They even treat wounded insurgents.

"Fortunately, it's our moral obligation to try to serve the enemy just as much as the United States Marines and Sailors," said Lt. Cmdr. William S. Byers, a trauma nurse with Alpha Surgical Co., 1st Medical Bn., 1st MLG (FWD), 41, from Port Huron, Mich.

The doctors and corpsmen have seen nearly 500 patients since Nov. 15, 2009, said Stone, 44, from Green Bay, Wis. Not all of the patients have had traumatic injuries. Some of the patients treated had shoulder injuries, non-life-threatening gunshot wounds and other injuries.

"It's nice to come out here and be available to these young men and women, not only Marines but Afghan nationals, soldiers and [the] Afghan [National] Army," said Blackwell, 42, from Mobile, Ala. "They come in injured, hurt and scared. I feel like I can bring a calming influence to them, ease their suffering and give them reassurance that they're going to be okay."

The doctors and corpsmen help the patients go through the surgery safely and pain free, said Blackwell. Keeping the patient's body and mind stabilized is an important part of a surgical operation, he added.

"I like my job," said Mann. "I like being out here because it's where I am really needed. We fix them up and help them get back to duty. It's a satisfying job knowing you're helping people."
Navy Medical Team Provides Care Above the Arctic Circle

By Cmdr. Cappy Surette, Bureau of Medicine and Surgery Public Affairs

KOTZEBUE, Alaska - A Navy reserve medical team from Operational Health Support Unit Camp Lejeune (OHSU CL) is participating in a two-week humanitarian mission to Alaska April 10-24 in a real-world operation called "Operation Arctic Care."

The mission is a joint cold weather military exercise involving all branches of the service, reserves and the National Guard who team up with local health organizations to provide medical care for native Alaskans who live above the Arctic Circle, an area with some of the harshest weather in the United States.

Over twenty-six Navy Medical reservists from OHSU CL were hand selected to participate. The Navy team, comprised of four Medical Officers with expertise in Gastroenterology, Emergency Room, Family Practice, Internal Medicine, along with Dental Officers, Podiatrists, Nurse Practitioners, staff Nurses and Hospital Corpsmen, will work with teams from the Air Force, Army and Navy, including Reserve, Guard and active duty units, positioned in more than ten different remote villages near Kotzebue, Alaska is subzero conditions.

"It certainly is our privileged and honor to take part and represent Navy Medicine on this important mission to Alaska," said Navy Capt. Kathleen Thorp, commanding officer of Operational Health Support Unit Camp Lejeune. "Missions like this help my Sailors prepare for future deployments in a Joint Service environment as well as training them to work in cold weather conditions. They are very excited to offer their clinical expertise working side by side with our sister services providing medical and dental care with the less privileged of eleven remote communities of Alaska."

Operation Arctic Care is an Innovative Readiness Training exercise (IRT), where military medical personnel team up with civilian authorities providing expert medical training exercise (IRT), where military medical personnel team up with civilian authorities providing expert medical

VACCINE

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"We are pleased to see this cooperative agreement finalized so that our joint research can begin," said Capt. Richard L. Haberberger, Jr., NMRC Commanding Officer. "In today's research environment, our successes are enhanced when we can partner, in the discovery phase, with fine academic institutions like the UC Denver. Likewise, the process from here to vaccine licensure is both long and challenging and is best undertaken with carefully crafted industry partnerships like this one with Sanofi Pasteur."

"Clearly, a highly effective vaccine against ETEC would solve a large part of the problem of infectious diarrhea among the military, civilian travelers and children around the globe," said Savarino.

Foodborne diseases, including travelers' diarrhea, have been a scourge of military operations throughout history. Today, travelers' diarrhea represents the most common communicable disease threat to U.S. and Coalition forces. Acute gastroenteritis is also a serious child health threat in the developing world, accounting for almost 1.6 million deaths annually, according to the World Health Organization. In each of these settings, ETEC is the most common cause of bacterial diarrhea and in severe cases can lead to dehydration and shock when not treated promptly and effectively.

The Naval Medical Research Center is a premier research organization and headquarters for Navy Medicine's research and development enterprise whose mission is to devise operationally relevant medical research solutions for the military. NMRC focuses on finding solutions to both traditional battlefield medical problems, such as bleeding, traumatic brain injury, combat stress and naturally occurring infectious diseases, as well as health problems associated with non-conventional weapons. In the area of infectious diseases, vaccine solutions are sought for infections with the greatest potential of adversely affecting military operations, and include diarrheal diseases, malaria and dengue fever. Working the R&D and acquisition process through the U.S. Army Medical Research and Materiel Command, the Walter Reed Army Institute of Research, NMRC and the network of overseas Army and Navy medical research laboratories, the U.S. military has a long, proud history of vaccine and drug development against tropical diseases, including now licensed vaccines against typhoid fever, Japanese encephalitis and hepatitis A.

World Malaria Day - April 25, 2010

April 25 is a day of unified commemoration of the global effort to provide effective control of malaria around the world.

Malaria, caused by the protozoan Plasmodium, is responsible for more suffering and death across the world than any other parasite. It is a mosquito-borne infection that kills up to 1 million people annually, most of them children under the age of 5. Even when a person survives malaria, the infection can incapacitate a victim for several weeks. Over three billion people, most living in tropical regions, are exposed to malaria, and 500-600 million clinical infections occur every year.
SAN DIEGO - Naval Medical Center San Diego (NMCSD) celebrated the grand opening of the new Multidisciplinary Spine Center (MDSC) with a ribbon-cutting ceremony earlier this month.

The creation of the MDSC marks a significant collaborative effort between the departments of Orthopedics, Physical Therapy, Interventional Radiology, Anesthesia Pain Management, and Primary Care Sports Medicine services at NMCSD. Through the combined efforts of these departments, patients receive comprehensive diagnosis and treatment for spinal disorders in one clinic visit. Patients can be seen by an orthopedic spine surgeon, a physical therapist as well as receive diagnostic and therapeutic treatments by interventional radiology and pain management specialists on the same day.

MDSC marks a new era in spinal care for the patients," said director of MDSC and NMCSD's Orthopedic Spine Surgeon Lt. Cmdr. Eric Harris. "By having all the players on the spine treatment team seeing patients in close proximity and communicating regularly about patient treatment plans, we have been able to more effectively manage our patients with a wide variety of spinal ailments. We have all the tools in place here to make logistics of patient care seamless."

The typical injuries seen at MDSC include everything from low back pain to fractures of the cervical, thoracic, or lumbar spine. In addition, MDSC treats degenerative conditions of the spine as well as scoliosis and other complex deformities of the entire spine.

"Lt. Cmdr. Harris, Lt. Cmdr. Paul G. Shupe and the entire spinal surgery team, including the corpsman and nurses are top shelf," said Cmdr. Lawrence F. Guest, an NMCSD patient. "They really take care of you like mom and dad would and I appreciate being able to be seen by physical therapy and the surgeon in one visit."

MDSC currently has the capability to perform nearly 200 surgeries and accommodate approximately 5,000 outpatient encounters per year. NMCSD has the potential to more than double those numbers with two more spine surgeons joining the team and interaction with the sports medicine physicians at the SMART clinics.

"The multidisciplinary approach allows patients to begin care immediately from all angles," said Kirsten M. Wiley, a physical therapist on the MDSC team.

MDSC is made up of a staff surgeon, resident, nurse, 1-2 corpsman, and a physical therapist. MDSC is located in the Physical Therapy Department in building three and open between 8 a.m. and 2 p.m. every Friday along with every second and fourth Thursday's of the month.
Navy Nurse Reflects on Deployment: “Serving America’s Best”

By Cmdr. Tina Blair, NC, USN
Flight Clinical Coordinator

The Missions office, where our Corpsmen track inbound flights bringing patients from Iraq or Afghanistan to Landstuhl, is always buzzing with activity. On this particular morning there are two priority flights due to arrive (one from Bagram, Afghanistan and one from Balad, Iraq) with over 60 patients headed our way.

It’s about 0400. I grab a cup of coffee and begin to review the patient data folders for each flight. The first patient medical record (PMR) is for a 20 year old Marine who sustained massive injuries from an Improvised Explosive Device (IED). Of the many acronyms we have, IED will forever make me cringe. Shortly after the uncomfortable cringe passes I push forward and retrieve the most current inbound manifest, to check it against each patient’s PMR. Soon it looks like a tornado has flown over my desk and things don’t add up. I have a PMR for a 26 year old ICU patient injured by a Rocket Propelled Grenade (RPG) but he isn’t on my manifest. I quickly check with the Missions team and discover that the patient has been pulled from the flight. I pull the PMR from my stack and put it aside; the Corpsman looks at me and says “Ma’am, you won’t need that PMR. The patient didn’t make it.” I’m temporarily frozen; what do I do with his record? He has made the ultimate sacrifice and it seems disrespectful to simply shred his record but I know that is what I must do. A prayer goes out to his family as I walk back to my office and pick up the next case.

By 0700 my phone rings - it’s the Mission team with an “en route” nurse supervisor to explain the situation and in no time the soldiers are reassigned to the same room, where they can continue serving as each other’s battle buddy. I’m happy they will be together but I’m also sad. I know that the legs will heal but I can’t help wonder how long their hearts will take to mend. Morning passes and we begin to prepare for the afternoon arrivals. Above is a glimpse of a typical morning at Landstuhl Regional Medical Center’s (LRMC) Deployed Warrior Medical Management Center (DWMMC). The department is not a “permanent” part of the hospital. It is housed in portable trailers that sit outside the Emergency Department. Hopefully, someday there will be no need for the department, but until that day comes we continue to proudly accomplish our mission.

In the DWMMC, some days are more heartbreaking than others. I look around and I see my comrades in arms and, at the same time, my patients. Every day I work with amazing Navy, Army, and Air Force medical personnel and am thankful for what they are willing to do. I am privileged to serve America’s best!”

Would you like to share your deployment story with MEDNEWS? Contact Lt. Holly Lee at 202-762-3773 or holly.lee@med.navy.mil

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