



The FHP&R logo features the caduceus, two snakes entwined around a winged staff that is the symbol of medicine and the healing arts – and variants of which form part of the logos of the medical departments of the armed forces. The caduceus comes from the Rod of Asclepius, the Greek god of healing.

The shield behind the caduceus symbolizes the office's mission to protect and defend the health and well being of Service members and their families.

Starting in the upper left hand quadrant, the three boxed symbols include an aircraft, representing the Air Force; a tank, symbolizing the Army; and a ship, for the Navy and the Marine Corps.

The solitary figure in the lower left hand quadrant is a U.S. Service member, representing our ultimate audience of Service members, civil servants and contractors—along with their families, military leadership and the health care providers who heal them, to whom the office of Force Health Protection and Readiness ultimately directs its efforts and performs its mission.

<http://fhp.osd.mil>



FHP&R

THE MAGAZINE OF FORCE HEALTH PROTECTION AND READINESS

Fall 2007, Vol. 2, No. 2

HARDEST ON THE CHILDREN

*How to Help Kids
Prepare for
Deployment*

YOUR PHA, PDHA, AND PDHRA

*Why They Really Do
Matter to You*

SIM MEDICS

*Technology Brings
Battlefield Care to
Texas*

MAKING IT RIGHT

*A Military Hospital
Makes Changes to
Better Serve
Patients and Families*



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<http://chppm-www.apgea.army.mil/>

DoD Mental Health Self-Assessment Program
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Department of Defense
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Hooah 4 Health
<http://www.hooah4health.com/>

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Phone: (800) 336-4590
<http://www.esgr.org>

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Washington, DC 20006
Phone: (202) 639-3520
<http://www.redcross.org>

Enlisted Association of the National Guard
3133 Mount Vernon Ave.
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Phone: (800) 234-3264
<http://www.eangus.org>

Military Officers Association
201 N. Washington St.
Alexandria, VA 22314
Phone: (800) 234-6622
<http://www.moaa.org>

National Association for Uniformed Services
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Phone: (800) 260-0218
<http://www.nmfa.org>

Non-Commissioned Officers Association
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Alexandria, VA 22314
Phone: (703) 549-0311
<http://www.ncoausa.org>

Reserve Officers Association
1 Constitution Ave., NE
Washington, DC 20002
Phone: (800) 809-9448
<http://www.roa.org>

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Fall is a particularly special season for parents and children. School is back in session—with all the related sports and activities that go with it—and family-centered holidays like Halloween and Thanksgiving fill the calendar. The autumn months seem especially made for families to come together.

For some parents and children in our military family, the fall months will see more than just weekend soccer games or trick-or-treating. As American Service members continue to deploy in support of Operation Iraqi Freedom, Operation Enduring Freedom and other important missions around the globe, many military families will face the challenging task of preparing children of all ages for the extended deployment of a parent.



This issue's cover story, starting on page 10, offers some insight into how to best prepare children psychologically and emotionally when a parent is deploying. It finds that the key to successfully doing so is communication and offers tips on how to communicate effectively with children in any age group.

The article also includes a link to the "Deployment Tips" page on the Force Health Protection & Readiness Web site (<http://fhp.osd.mil/deploymentTips.jsp>), which has a collection of links to resources any military family can use, as well as to Military OneSource, an invaluable place for comprehensive information and guidance (including free confidential counseling for both parents and children, if desired) that is available both on the Web (www.militaryonesource.com), or via a toll-free phone call at 1-800-342-9647 (you can even call toll free or collect from international locations; see the Web site for more information).

The resources listed above do not only address the time leading up to deployment, but also have a great deal of information for Service members and their families in every phase of deployment—indeed, in every phase of military life. Many families are currently in the midst of a family member's deployment, and many others will be celebrating the return of a loved one this fall. In each phase of deployment, emotional and psychological preparation and support for both the deployed Service member and family at home is important. Please use these free resources to the fullest!

Fall is indeed a wonderful time for families, and whether yours will be seated together around a Thanksgiving table as usual or separated by deployment this autumn, I wish you and your family a wonderful season.

Ellen Embrey
Deputy Assistant Secretary of Defense for
Force Health Protection & Readiness

Understanding the Partnership for Health:

A Q&A with Dr. Michael Kilpatrick, Deputy Director, Force Health Protection & Readiness Programs

Q&A By Benjamin Bryant, FHP&R Staff

Q What is the Partnership for Health?

A When Service members and their families, line leadership and health care providers work together to create and maintain a healthy and fit force, we have a “Partnership for Health.”

The Force Health Protection & Readiness Programs (FHP&R) office is committed to providing information and materials for all members of this Partnership for Health so they understand their roles and responsibilities.

Q What is meant by the “roles and responsibilities” of the members of the Partnership for Health?

A The success of the Partnership for Health depends on the line leadership, the Service member and family and the medical care providers all having the same expectations for what the Military Health System provides.

The responsibility of the operational leadership is taking care of their people, which includes assuring medical attention is provided when the Service member becomes ill or injured.

The responsibility of the Service member is completing the mission, and that mission becomes getting medical attention when ill or injured.

The responsibility of the military medical community is providing world class care for each and every Service member who becomes ill or injured.

The shared expectation of the partners must be returning the ill or injured Service member to health and to duty. Then the role of the leadership is supporting the Service member getting medical care and using the timetable provided by the medical personnel to plan the reintegration of the Service member

into the unit.

The role of the Service member and family is giving the medical care providers complete information regarding the illness or injury so that early assessment and treatment can be done.

With the Partnership for Health working together, there can be a clear agreement on military medical readiness.

The role of the medical care provider is diagnosing and treating the illness or injury and keeping the Service member and family, as well as the line leadership, informed of the expected outcome.

We will never have 100 percent of military personnel medically ready for the mission 100 percent of the time. However, with the Partnership for Health working together, there can be a clear agreement on military medical readiness.

Q Is it possible to be a member of more than one of the communities in the Partnership for Health?

A Yes, it is actually very important to understand that a single person may be a member of two or three of the communities in the Partnership, with their roles—and corresponding responsibilities—shifting based on individual situations.

Just because a Service member holds a leadership role or works as a medical provider doesn't mean that he or she will never be a patient in need of care.

This is the major reason that our communication material, including the FHP&R Web site, are information



Michael E. Kilpatrick, M.D.

and resources developed for each audience transparently available to all of our audiences.

Q So you believe that all audiences can benefit from the FHP&R resources on the Web site and in your other communication material?

A Yes. Sharing of information and resources helps build awareness and shapes expectations for each member of the Partnership for Health.

A shared understanding of the roles and responsibilities by these partners results in a healthy and fit force because early medical intervention produces better medical outcomes, and everybody gains.

Q How will the Partnership for Health affect the stigma Service members have about seeking medical care?

A I believe the Partnership for Health greatly reduces that stigma because Service members have support from their leaders, their peers and their medical providers, as well as from their families, to seek and receive medical attention for physical and psychological concerns early, before performance is affected. ♦

Your: PDHA, PDHRA and PHA: Why it Matters

By Scott Stearns, FHP&R Staff

One of the critical tasks of the military health care system is ensuring the long-term medical readiness of our Armed Forces. It is essential to monitor the health status of all Service members, to include both active duty and Reserve Component personnel. This monitoring allows the Department of Defense Military Medical System to provide timely health care, information, counseling, treatment and testing.

Ongoing combat operations in Iraq and Afghanistan have increased the need for regular monitoring of individual Service members returning from a combat deployment. To achieve this, DoD developed a process that allows repeated monitoring of Service members returning from a combat deployment for health care related problems. The process includes three components: The Post-Deployment Health Assessment (PDHA) the Post-Deployment Health Reassessment (PDHRA) and the Periodic Health Assessment (PHA). Even though the titles and acronyms



U.S. Army photo by Pfc. Mike Pryor, 82nd Airborne Division Public Affairs

Spc. Chad Shangraw, a combat engineer attached to 3rd Battalion, 325th Airborne Infantry Regiment, 82nd Airborne Division, completes the electronic version of the Post-Deployment Health Assessment, a survey of soldiers' psychological and physical health, by inputting his answers into a hand-held computer.

of each of these programs sound similar, each program has a separate and distinct purpose.

The PDHA is required for all returning Service members and includes a face-to-face health assessment with a trained health care provider during in-theater medical out-processing or within 30 days after returning to their processing or home station. The purpose of this assessment is the proactive identification of health concerns that emerge over time following deployments and facilitate the opportunity for Service members to have their health needs and concerns fully addressed following deployments. The assessment is documented on DD Form 2796.

Even though the titles and acronyms of each of these programs sound similar, each program has a separate and distinct purpose.

The PDHRA is designed to identify and address health concerns, including psychological health, that have emerged after the completion of the PDHA. Since many health concerns are more frequently identified several months following the return from operational deployment, the PDHRA provides a second health assessment during the three- to six-month period after return from deployment.

The PDHRA is required for all Service members who have returned from operational deployment. The PDHRA program uses DD Form 2900 to document health concerns, assessments and referrals. After Service members have completed



U.S. Army photo by Pfc. Mike Pryor, 82nd Airborne Division Public Affairs

Sgt. Ronald Young (l.) a combat engineer attached to 3rd Battalion, 325th Airborne Infantry Regiment, 82nd Airborne Division, answers questions about his health from Maj. John Bride, Battalion Surgeon, during the Post Deployment Health Assessment portion of the battalion reintegration training.

the form, a health care provider discusses with the Service member any health concerns, which they have indicated on the form and makes referrals to appropriate health care or community-based services if further evaluation or treatment is required.

The PHA is an annual requirement of all active duty and Reserve Component personnel. This health assessment is meant to identify current health problems, occupational risks and preventive care needs. Based on this information, health care providers can refer Service members for treatment of current health problems, implement plans to manage health risk and develop a health plan to improve overall Service member health status. The completion of the PHA is documented in the Individual Medical Readiness electronic tracking system and on DD Form 2766.

This health care monitoring process is an essential part of the Military Health System and allows DoD to ensure that all Service members, regardless of component, receive the health care that they deserve. The DoD military health care system continues to provide the best possible care to our Service members and their families. ♦

Addressing Military Psychological Health and PTSD

By Gina Pattison, FHP&R Staff



Military life, especially deployments or mobilizations, presents unique challenges to Service members and their families. Separation from family members can be a difficult time, as can the transition from deployment back into family life. In addition, the exposure and re-exposure to combat experiences can sometimes inflict physical and mental strain.

DoD efforts in the area of addressing psychological health concerns recognize not only the stress on Service members and their families caused by deployments, but also the fear of stigma (including ostracization or impediments to professional advancement), that surrounds the seeking of psychological health assistance and support. While it is possible in some circumstances to deal with stress and difficult situations alone, counseling or other formal support is sometimes necessary and can often assist in more quickly restoring one's previous level of

functioning--particularly when assistance is sought early.

With the goal of reducing stigma through education, increasing early intervention and providing support and treatment, DoD offers a variety of psychological health options.

Separation from family members can be a difficult time, as can the transition from deployment back into family life.

Most medical treatment facilities include dedicated mental health clinics and integrate behavioral health consultants with primary care providers. Additionally, family members can seek assistance from civilian providers in the TRICARE network.

A voluntary Mental Health Self Assessment Program (MHSAP) is available as a valuable early step in identifying and treating mental health needs. It offers self-assessment and reassessment screenings, targeted educational materials and referrals when needed. The MHSAP is available online at www.militarymentalhealth.org or toll free via the MHSAP hotline at 1-877-877-3647. Military OneSource (www.militaryonesource.com), chaplain services and other installation support services such as community and family readiness centers can provide counseling, guidance and referral on many issues that affect returning Service members and their families.

Post-Traumatic Stress Disorder (PTSD)

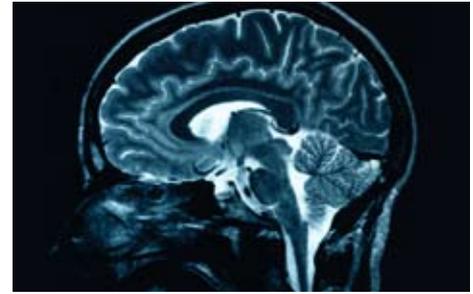
PTSD can develop after exposure to a terrifying event or ordeal in which physical harm occurred or was threatened. It is characterized by persistent thoughts and memories of the event, detachment and emotional numbness, and hyperarousal. Some people who are exposed to a traumatic event develop PTSD, while others do not. For Service members, one of the most important risk factors for the onset of PTSD is exposure to combat, including its intensity and whether an injury was sustained. The greater the degree of combat exposure, the greater the likelihood of developing PTSD and the longer the duration of symptoms.

While PTSD is widely noted among patients after exposure to traumatic events, it is not the only disorder that can present itself. PTSD shares many symptoms with other psychiatric disorders, notably other types of anxiety disorders and major depressive disorder. Service members who have served in war theaters may be at risk for the development of PTSD, but might show symptoms of substance abuse or other psychiatric conditions as well. During a psychiatric evaluation, Service members and their families should alert their mental health professional about possible exposure to traumatic events to ensure an accurate diagnosis. Most military treatment facilities have same-day walk-in appointments for urgent mental health conditions. ♦

SPOTLIGHT ON: Traumatic Brain Injury

By Gina Pattison, FHP&R Staff

Traumatic brain injury (TBI) is caused by a blow or jolt to the head or a penetrating head injury that disrupts the function of the brain. This can be caused by a direct blow to the head (boxing, a bean ball), an indirect force (whiplash in a car accident), a penetrating injury (shrapnel from an explosion) or an explosive pressure wave (explosion alone without other injuries). It can range from an injury so mild and transient that it is completely undetectable, to a severe injury that causes profound coma or death.



People with mild to moderate brain injuries can experience a wide range of symptoms. They may have physical symptoms such as headaches, dizziness or vertigo, balance problems and sleep disturbance. They may have cognitive symptoms including short-term memory deficits, poor concentration or be easily distracted and indecisive. Additionally, they may have changes in their mood that make them feel different than they did before their injuries. The most common mood changes that people with brain injury experience are increased irritability, sad mood, lack of motivation and increased anxiety.

Because TBI can present differently in each person and because initial medical care usually addresses visible injuries, mild or moderate injuries may not be obvious. The Service member may not be aware of any symptoms, but family members often notice and should encourage their loved one to contact their health care provider as soon as possible.

DoD is working on a number of measures to evaluate and treat Service members affected or possibly affected with TBI:

Army and Marine Corps line and medical personnel in the field are the most commonly involved in ground combat that causes increased risk for TBI. In response, they have been given detailed guidance on how to identify, evaluate, protect and treat Service members with possible TBI.

In addition, DoD is implementing an exposure screening program for all Service members returning from theater.

Exposures to events that carry a risk of TBI trigger further evaluation by the health care provider and possibly yield a referral to a specialist.

DoD's unique collaborative network of experts serves active duty military members and veterans with TBI through state-of-the-art medical care, innovative clinical research initiatives and educational programs at several military, civilian and Department of Veterans Affairs (VA) sites across the country. ♦

Rehabilitative Care: Meeting the Challenge

Severely injured Service members often require a continuum of short-term, mid-term and prolonged treatment and rehabilitative care. This plays a critical role in the assessment, management and disposition of the injured combatants. Working in partnership with the VA, DoD is meeting this challenge by establishing specialty centers of excellence.

As a result, coordination of treatment and continuity of care for those who have returned from combat zones continues to improve dramatically.

Key components of DoD rehabilitative health care for severely injured Service members include:

- Walter Reed Army Medical Center Amputee Care Center and Gait Laboratory
- National Naval Medical Center's Traumatic Stress and Brain Injury Program
- Center for the Intrepid state-of-the-art rehabilitation facility and Brooke Army Medical Center Burn Center at Fort Sam Houston
- Naval Medical Center San Diego Comprehensive Combat Casualty Care Center
- The multi-site DoD/VA Defense and Veterans Brain Injury Center for patient care, education and clinical research

Brooke Army Medical Center in San Antonio Steps Up Care for Warriors in Transition and Their Families

by Elaine Wilson, Fort Sam Houston Public Information Office

Since June, Brooke Army Medical Center (BAMC) has implemented a series of sweeping changes designed to improve the quality of care for Warriors in Transition and their families.

The changes are driven by the Army Medical Action Plan (AMAP), an Army initiative designed to eliminate bureaucratic roadblocks for Warriors in Transition so they can focus on recovery and have a smooth transition back to military duty or civilian life.

The first and perhaps most dramatic change is the formation of a Warrior in Transition Battalion. The battalion, which stood up June 15, replaces the former active-duty Medical Hold and reserve Medical Holdover companies. Reserve and active duty Warriors in Transition are now combined in three companies under the battalion.

All battalion soldiers are in a transitional status, meaning they are wounded or ill and undergoing treatment at BAMC.

"We're all one team so it makes sense to keep everyone under the same umbrella," said Master Sgt. Scott Waters, senior operations NCO, Warrior in Transition Battalion.

The reserve and active duty soldiers were separated in the past to ensure familiarity with administrative processes, which differ for each component; however, "AMAP gives us the resources we need to accommodate all soldiers without differentiation," Waters said. "We now have the extra help we need to successfully manage and track our Warriors in Transition without separation."

Since AMAP, the ratio of soldier to platoon sergeant has reduced dramatically. Whereas before there were 50 soldiers to each platoon

sergeant and no squad leaders at BAMC, there are now 12 soldiers per squad leader and about 30 soldiers per platoon sergeant.

But with myriad issues, ranging from severe injuries to family problems, there's "a lot to be done even with that ratio," Waters said. To ensure Warriors in Transition have top-notch care, the Army created the "Triad of Care" concept, which is an integral part of the battalion.

Each triad comprises a case manager, primary care manager (PCM) and squad leader or platoon sergeant. Each Warrior in Transition is assigned to a triad, which ensures consistency and continuity of care for the soldiers and their families.

"It eases the process for both the soldiers and the health care providers," said Lt. Col. Donna Rojas, chief of case management. "There's no confusion about who to call when there's a question or concern. The providers know exactly which squad leader to call and vice versa. And, the soldier knows exactly who to contact as well."

Rojas provides oversight for the case managers, who serve as a pivot point for the triad. Responsible for just about every aspect of a patient's health care plan, case managers ensure Warriors in Transition attend appointments, understand their treatment plan and are on hand to aid with everything from housing issues to family dilemmas.

Case managers meet with Warriors in Transition weekly and then touch base with the soldier's platoon sergeant or squad leader and PCM to ensure the soldier's recovery is progressing smoothly. "Successful treatment takes a lot of collaboration," said Lt. Col. Mary Burns, chief of medical management. "Case managers, PCMs and squad leaders are all looking out for the

best interests of the soldiers; the key is to meet regularly and catch issues early."

Prior to AMAP, each case manager had about 35 Warriors in Transition assigned. But thanks to an influx of resources, there are now 10 case managers assigned to each company, and the ratio has reduced to about 18 soldiers per case manager.

PCMs also have reorganized to provide better continuity of care. Pre-AMAP, several PCMs were unofficially designated for Warriors in Transition, but didn't have a space dedicated for care and their time was divided with regular patients. BAMC now has officially assigned three health care providers and a designated area of the family Medicine Clinic to better serve wounded and ill Service members. Additionally, the ratio of patients to PCM has dropped from 1,200 to 1 to 200 to 1. The reduction in patient load allows PCMs to spend more time with each service member, increasing from 20 minutes to upwards of over an hour.

"A PCM meets with every Warrior in Transition within 24 hours of arrival and conducts a head-to-toe evaluation," said Dr. Sara Pastoor, chief of Primary Care. "We assess every aspect of the patient's health care needs, including any specialty care that may be needed as well as preventive health care, such as tobacco cessation.

"I'm overwhelmingly impressed with and proud of everyone providing Warrior in Transition services at BAMC," Pastoor added. "It can be emotionally draining to provide the amount and type of health care needs involved, but it is a privilege to be exposed to the sacrifices and heroism. It's a challenging job for the PCMs because it takes, not just a thorough knowledge of medicine, but also a thorough administrative

knowledge of the system.”

The last branch of the triad, are the squad leaders and platoon sergeants, who serve as the “enlisted NCO boots on the ground,” Waters said. “We are there 100 percent for the soldiers and their families from the time we’re notified a soldier is coming.”

Squad leaders take care of everything from picking up the soldier or family members at the airport or emergency room to transporting them to medical appointments, “everything that doesn’t involve medical care,” Waters said.

The process starts as soon as the battalion is informed a service member is incoming or checking out of the hospital. “We help the soldiers get situated and then the next morning, we pick them up, introduce them to the case manager and start in processing,” said Waters, adding that the U.S. Army Garrison Fort Sam Houston also provides ongoing support with transportation as well as barracks maintenance and upgrades to accommodate varying physical needs.

The NCOs work closely with the case managers to ensure an open flow of communication. “We overlap in a lot of areas,” Waters said. “Sometimes the soldier feels more comfortable talking with a case manager or vice versa. We keep each other in the loop to ensure all needs are being met.”

The help is ongoing as the squad leaders stay abreast of developments that may hinder care, such as family problems back home or a pattern of missed medical appointments.

“Most Warriors in Transition are on

some type of medication and may forget an appointment,” Waters said. “They may just need a simple reminder and we’re here to do that.”

As the war continues, each branch of the triad will continually seek ways to improve processes and programs to ensure Warriors in Transition receive the best care possible, said Col. Barry Sheridan, chief of Warrior in Transition Services. “BAMC has always cared about its Warriors in Transition,” he said. “But now, AMAP is giving us the resources we need to do what we do even better.”



Case Managers Navigate ‘Medical Maze’ for Patients
Photo by Elaine Wilson

DoD Upgrades Patient Information Sharing with VA

by Austin Camacho, TRICARE Management Authority

A soldier arrives at Walter Reed Army Medical Center with war wounds. His surgeon accesses AHLTA, the military’s electronic health record, to retrieve the soldier’s medical history. But this is a National Guard soldier who was previously active duty. Before joining the Guard the soldier sought medical care at a Department of Veterans Affairs (VA) facility. His military medical records only tell half the story.

Not long ago, such a surgeon would have had no choice but to proceed with incomplete information. Today, he could look at his patient’s VA lab results, radiology reports and other important information, thanks to a system called Bidirectional Health Information Exchange (BHIE).

“The Departments of Defense and Veterans Affairs are recognized leaders in the national effort to share electronic health information,” said Army Maj. Gen. Elder Granger, deputy director, TRICARE Management Activity. “For our warriors to get the best possible health care, it is vital that the two departments share health information on patients treated by both departments.”

With National Guard and Reserve members leaving active duty and being reactivated, and those released from active duty seeking care at the VA, the Departments have more and more patients in common. In fact, as of July 2007, 2.3 million patients have been treated by both DoD and VA health care systems.

Until very recently, BHIE was operable at 15 DoD medical centers, 20 hospitals, and about 200 clinics. These DoD sites shared medication and allergy profiles, laboratory results and radiology reports from facilities throughout the VA system. But a new interface introduced in July 2007 allows providers at all military treatment facilities to access the BHIE directly through AHLTA and gives VA providers access to information from all DoD health care facilities, according to Lois Kellett. Kellett is the director of integration and communications for the Information Management, Technology and Reengineering Directorate.

As advanced as this data sharing is today, Kellett says it will become

—Continued on page 20

How Do I Navigate FHP&R's New Web Site?

by Kristi Beck, FHP&R Webmaster and Rebecca Chisholm, FHP&R Staff

The design and organization of the new FHP&R Web site responded to feedback from our users and numerous focus groups to make it more logical, comprehensive and intuitive. The new site contains the same information that was previously on DeploymentLINK and its sub-sites, but with a revitalized and reorganized structure, so that users may enter audience specific portals that help guide them to the answers they seek (Figure 1). Each of the three audiences, Service members and families, DoD leaders and health care providers and planners, has a portion of the site dedicated to information tailored specifically for them (Figures 2-4).



Figure 1: Home Page



Figure 2: Service Members and their Families

What is in the Service members and their Families section?

Inside the Service members and their Families section, users find the page divided into three areas: Just Accessed, Currently in Service and Transitioning from the Military (Figure 2). These areas offer a menu of items related to each stage of the lifecycle of a Service member and their family.



Figure 3: Leaders

The information in this section demonstrates that DoD is looking out for the best interests of the Service members and their families by providing them with a full range of the finest medical care available on a routine and regular basis. This means that when a Service member is injured or wounded while on deployment he/she has world-class health care provided by world-class professionals anytime, anywhere. But equally important, Service members do not have to worry about the medical care provided to their family members on the home front. They too receive the finest care available whenever and wherever they need it.

Users may enter audience specific portals that help guide them to the answers they seek.

As members of the Reserve Component or National Guard, active duty Service members receive the finest medical care available, as does their family. Also, when a Service member separates from active duty or retires from military service, the transition to post-service health care is handled with dignity and respect. Service members and their families are not left adrift to navigate their way through a confusing array of health care choices. This section of the site helps them steer towards the best choices available to maintain a fit and healthy lifestyle.



Figure 4: Health Care Providers and Planners

What is in the Leaders section?

Inside the Leaders section, users find the page divided into three areas: Building a Fit Force, Maintaining Force Health and Transitioning Guidelines and Policies. These areas offer a menu of items related to each stage of a Leader's lifecycle as associated with the goal of building and maintaining a fit and healthy force. Links to a variety of sources are available to enable Leaders to find information on such topics as TRICARE, deployment, fitness, disease and post-deployment issues, among many others. The Armed Forces recognize that a fit and healthy force performs better than an unfit and unhealthy one and is doing all that it can to meet this goal.

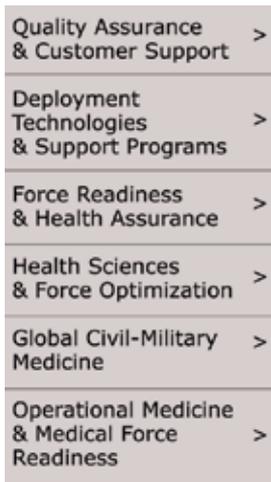


Figure 5: Capability Areas

What is in the Health Care Providers and Planners section?

Users navigating the Health Care Providers and Planners section, find the page divided into three areas: Accession Guidelines and Policies, Service Guidelines and Policies and Transitioning Guidelines and Policies. These areas offer a menu of items related to each stage of a Health Care Provider or Planner’s lifecycle. For a Health Care Provider or Planner, Force Health Protection & Readiness means providing world-class health care as world-class professionals anytime, anywhere in the world. As military medical professionals, the highest standards of both the medical profession and the military profession must be kept. It means patient accountability, to their families who expect their spouse or dependent to be in the best condition possible and to their leaders who expect to lead a fit and healthy force capable of meeting all the missions it might be assigned.

Users looking for organizational information can locate specific capability areas in the menu on the left of the home page (Figure 5). Currently, FHP&R’s organization consists of six capability areas

plus Global Health Surveillance under the Force Readiness and Health Assurance area. When users click on one of these capability areas, they see an About Us selection that provides an overview of the area’s capabilities and mission under the Deputy Assistant Secretary of Defense (DASD) of FHP&R and the various sub-sites and main priority areas (i.e., Rehabilitative Care, Post-Deployment Reassessment Information sub site, Deployment Health and Family Readiness Library sub-site, Depleted Uranium sub-site or the DeployMed ResearchLINK sub-site).



Figure 7: Military Operations Map

Located just under the main capability areas, is subject-related information that was previously part of the organization’s DeploymentLINK site (Figure 6). The sections in this area include: Frequently Asked Questions, FHP&R Health Topics (A to Z

glossary of FHP&R terms with definitions and links to important fact sheets), Operations & Exercises (to include pre-and post-deployment tips, deployment family support information, as well as a world map that shows past U.S. military operations and exercises, (Figure 7)), resources and links to other organizations, an about Us section for FHP&R that includes biographies and an organizational chart, a link to DoD acronyms, a best practices section, a photo gallery and graphics area with high and low resolution photos and FHP&R artwork and an area where users can submit a question to FHP&R that will be answered within 48 hours.

Another area located on the site is the “What’s New” section that highlights some of the major initiatives that are happening in the Military Health System.

What if I cannot find what I am looking for?

The site also contains a feature that uses the Google© Search Appliance that searches only our site and sub-sites. For example, if a user were looking for information on pandemic influenza, the user types into the search box, located in the upper left-hand side of the FHP&R home page, (Figure 8) and get results back from our site.

Users who are having problems finding information can click the Contact Us link located at the top of the home page. A phone number, 1-800-497-6261, answered by a live person 8:00 am (EST) to 4:30 pm (EST), is provided, as well as a mailing address and email form (Figure 9). ♦



Figure 6: Subject related information



Figure 8: Google Search Appliance



Figure 9: Contact Us

COMMUNICATION

The key to Emotionally Preparing Children for Deployment

by Bilyana Atova, Army News Service

Deployments are tough on military families, especially children.

Separation can take its toll on youth of all ages, and experts agree that parents should take steps to help their children cope during this difficult time.

"Many times we forget the kids, that they go through the same emotions, fears and concerns as we do," said Simone Hartley of the U.S. Army Garrison Grafenwoehr Army Community Service Family Advocacy Program.

Robin Kelley, the program's program manager, said parents and caregivers should "start preparing the child as soon as you know about an upcoming deployment."

Such groundwork should involve the entire family, with parents talking individually with each child.

"Children often pick up on subtle emotional changes in their parents, and if they become aware that their mother or father is behaving differently, they may personalize it and believe they are the cause," added Navy Capt. Daphne Brown, a clinical psychologist at Landstuhl Regional Medical Center, Germany. "They need to understand, in concrete terms they can grasp, what is happening and why."

But this crucial communication should not be a one-time event, Ms. Kelley stressed, adding that parents should use every opportunity to prepare each child according to

his or her age and their level of understanding.

Additionally, Ms. Kelley said it is important for a Service member-parent to spend time separately with each child prior to deployment because "it is about respecting your child as an individual, who needs your undivided attention."

Reinforcing that notion, Capt. Brown said, "Spending time individually is very important because it establishes connections."

She said children often experience the same emotions as parents prior and during deployments, but "they

Kids need to understand, in concrete terms they can grasp, what is happening and why.



just show it in different ways, often through behavior."

Pre-school children, for example, may exhibit regressive behavior, such as bedwetting, and a desire to sleep in the same bed with parents. Children in this age group, Capt. Brown said, do not have a total grasp of time and they simply "do not understand what it means that daddy is going away for a long time."

Another common deployment characteristic for pre-school children is egocentrism.

"Kids are very egocentric," Capt. Brown said, explaining that they

often think that if a parent is leaving, they have probably done something wrong.

Pre-school kids [also] experience what Ms. Kelley called non-reality "magical thinking," believing that if they wish or pray for something to happen, it will come to pass.

Another common pre-deployment reaction of that age group is feelings of rejection by the deploying parent. I don't love you can be heard often from the children, Ms. Kelley said. "This is where the parent should react with 'I know that you are angry but it is okay, I still love you.'"

Common pre-deployment behavior for school-age children includes difficulty concentrating, difficulty sleeping, anxiety, resentment and denial, according to Elizabeth Hill, an adolescent substance abuse counselor for Grafenwoehr's middle school.

"Anger is also a primary reaction that consists of fear and hurt," Ms. Hill said.

Plus children may become irritable, or even withdraw from their parents and friends.

"Some children develop physical problems, such as stomach pains and headaches, while others cling to the parents more closely," Capt. Brown noted, adding it is not uncommon for school-age children to also exhibit regressive behavior and "become more clingy or whiny."

And though teenagers are more mature, they are just as likely to exhibit pre-deployment stress. Common behaviors for teenagers: depression, problems sleeping, missing curfew and cursing.

"It is like they are thinking if I am



Photo courtesy U.S. Marine Corps

bad, my dad cannot go," Ms. Kelley said.

"Sometimes teenagers have difficulty saying they are scared for deployed parents," she pointed out, noting that teenagers can also suddenly begin to avoid a parent who is leaving.

Regardless of the different age groups and behaviors, military child experts agree on one matter - the diverse behavior of children of deploying parents is normal.

"Whenever there is a noticeable change in a child's behavior that appears to be more negative or immature, you should consider..that the child is struggling because of the upcoming deployment," said Capt. Brown.

When parents see such emotions, Ms. Hill suggests they listen to the child with an open mind, keeping the lines of communication flowing; it helps children to deal with changes and to restore predictability.

"Children need a great deal of routine and predictability," Capt. Brown said. "Certainly a parent leaving the household disturbs both of those factors. Behavioral problems are far more likely to be resolved if children do not have the extra anxiety of wondering what is going

to happen next in their world."

Another key to helping children cope with deployments, she suggested, is "reassuring them of your love."

Capt. Brown called children, ages 8 to 10, very egocentric as well, meaning they see many events in their world occurring because of their actions. Reassuring young ones that they are loved, she said, can help to eliminate the misperception that the parent left because the children were bad, are unlovable or somehow did something wrong.

However, Ms. Kelley cautioned, "Reassuring the kids that they are loved and reassuring them that you are coming back are two very different things; never make a false promise to a child."

"You should be honest with the child that there is risk - but at a level the child can understand," Capt. Brown agreed. While a teenager can comprehend that the deploying parent may face dangers, younger children cannot process that information.

Ms. Kelley said parents should explain this in an age-appropriate manner: "If the kid is 6 years old, you do not give them statistics."

The best way to phrase it, experts

concur, without making a false promise to the child, is reassuring them that the parent is well-prepared for his job, that all Service members work together as a team to keep each other safe, and that the parent will do everything possible to return home safely.

"One should definitely be honest while focusing on the positive perspectives that can provide reassurance," Capt. Brown said.

For a comprehensive list of resources available to deployed Service members and their families visit

<http://fhp.osd.mil/deploymentTips.jsp>

and

visit Military OneSource at

www.militaryonesource.com

or by calling toll free

1-800-342-9647

Why Preparing for Pandemic Flu is so Important to DOD

by Scott Stearns, FHP&R Staff (Q&A by Benjamin Bryant)

An influenza pandemic occurs when a new influenza virus emerges for which there is little or no immunity in the human population, begins to cause serious illness and then spreads easily person-to-person worldwide. The spread throughout Asia and into parts of Europe and Africa of an Avian, or Bird Flu, is a reminder of the damage to human and animal life that can be caused by the influenza virus. Many scientists believe it is just a matter of time until the next influenza pandemic occurs, but the timing and severity of the next pandemic cannot be predicted.

To prepare for the threat posed by a Pandemic Influenza, the federal government issued the "National Strategy for Pandemic Influenza" in November 2005 to guide "our preparedness and response to an influenza pandemic with the intent of (1) stopping, slowing or otherwise limiting the spread of a pandemic to the United States; (2) limiting the domestic spread of a pandemic, and mitigating disease, suffering and death; and (3) sustaining infrastructure and mitigating impact to the economy and the functioning of society."

This spring, DoD unveiled the its Pandemic Influenza (PI) Implementation Plan, a key part of a multi-agency initiative to prepare the nation for a potential mass outbreak of a deadly influenza virus or other threats. Capt. D.W. Chen, M.D., Director of Civil-Military Medicine for the Office of FHP&R, answers questions on why issues of Pandemic Influenza (and related Bird Flu) are relevant to the military community.

Q How would you characterize DoD's involvement in dealing with a pandemic outbreak?

A DoD's primary involvement in the event of a Pandemic Influenza outbreak is to protect our active duty Service members and other mission critical personnel through the administration of vaccines and

antivirals, the provision of personal protective equipment, and the implementation of community disease mitigation measures to limit spread of the virus. The Department of Homeland Security (DHS) has the main U.S. government lead in coordinating response to catastrophic incidents here in the homeland; the Department of Health and Human Services (HHS) has the main government lead in addressing medical/public health response. DoD also will provide, when available and when officially requested, critical support to both of these civilian government authorities, as well as to other federal agencies.

A pandemic occurs when a new influenza virus emerges for which there is little or no immunity in humans.

Q Why is DoD involving itself in a health issue?

A The Military Health System (MHS) was created to provide medical and health service support critical to maintain our national security mission worldwide.

The MHS prevents and treats injuries and disease, and promotes health to our active duty Service population, as well as provides for and sustains the health care benefit to the entire DoD beneficiary population.

Q How will DoD protect its workers/personnel, especially with mission-essential roles?

A DoD will protect our active duty members and other mission critical personnel through the administration of vaccines and antivirals, the provision of personal protective equipment and the implementation

of community disease mitigation measures to limit spread of the virus.

Q What are DoD's essential services and how will they be maintained in the event of absenteeism?

A DoD must be able to sustain its national security mission across the globe, even during a pandemic. Keeping sick people at home, especially children, is critical to limiting disease spread. Allowing caregivers to stay home to provide for sick family members also is critical.

Mission critical personnel, including forward-deployed forces, health care providers, etc., will be given first priority for vaccines, antivirals and personal protective equipment. Arrangements are underway to help facilitate the ability to allow DoD employees to work from home through telework.

Q Is DoD involved in vaccine or medication production? Monitoring of the spread of the disease/virus? Containing the outbreak?

A DoD is not directly involved in the manufacture of FDA-approved vaccines or medications. However, DoD has acquired, as has HHS, advanced supplies of medical countermeasures and will distribute these in the event of a pandemic.

Q Who will assist HHS? DoD, DoD Civilians, Guard or Reserve?

A Support to civilian authority, when officially requested and available, will be provided through a combination of Title 10 active duty and/or civilian DoD employees. Title 32 National Guard are primarily State assets.

Q This is an interagency approach. How are the different agencies ensuring proper task distribution, interagency communication? Should we expect to see response exercises addressing this? How

are preparations done with other countries?

A Federal agencies worked collaboratively in developing the National Implementation Plan for PI and continue to work together in implementing many of the tasks identified in the plan. Indeed, only through close coordination of the many agencies within the U.S. government, including DoD, can we, as a nation, address the many challenges of a pandemic.

Q Timetables are mentioned in the Implementation Plan. Does this mean DoD is not ready to deploy now if necessary? Is there a prioritization regarding which components will be ready first? The Implementation Plan is dated August 2006. Did the clock start back then?

A The timelines for the taskings identified in the Implementation Plan accompanying the National Strategy for PI, use May 2006, the date of its publication, as the starting date.

(The DoD PI Plan was published in August 2006.) We have completed or almost completed many of the tasks where DoD has the lead.

Q The Plan includes Pre-Scripted Requests for Assistance, the same vehicle used during a Hurricane Response. Is the approach to deal with a pandemic leveraging off the approach to deal with a natural environmental disaster?

A DoD has been working with HHS, DHS, and other federal agencies to develop playbooks and to write prescribed Requests for Assistance for military support to accompany a number of catastrophic incidents, including hurricanes and pandemic influenza.

Q How can preparations limit the effects of a pandemic when the source or means of transmission are unknown?

A Our knowledge about how a future PI outbreak might behave is based upon our previous experience with pandemics during the 20th century, as well our knowledge and experience of annual seasonal

influenza. Yes, there are still many unknowns, but we are using the best available science to guide our preparedness efforts.

Q What can each person do to help now? What about in the event of a pandemic?

A There is a lot everyone can do to prepare themselves today – knowledge and preparation is power when it comes to Pandemic Influenza. Persons should learn as much as they can about the disease and how it is spread. Many measures can be taken at home and in the workplace to limit spread of the virus through ordinary hygiene, such as frequent hand washing and staying at home if you are sick.

Q If a pandemic arises, where can people go for information?

A There's no need to wait until a pandemic arises, people can start learning more now by referring to the DoD PI Watchboard at: www.dod.mil/pandemicflu

DoD has aligned its critical planning in accordance with the national strategy pillars and priorities outlined in the National Strategy for Pandemic Influenza

Pillar One Preparedness and Communications

DoD will continue planning for a pandemic and will communicate its expectations and responsibilities to all members of the Department. DoD will produce and stockpile vaccines, antiviral and Medical Materiel, and establish distribution plans for these items. DoD will continue to advance scientific knowledge and to accelerate development of effective countermeasures.

Pillar Two Surveillance and Detection

DoD is conducting influenza surveillance at laboratories within the United States and on its installations worldwide. Policies have been developed, or are under development, to enhance detection capabilities to the lowest possible level. Systems are in place that can identify outbreaks of disease in deployed forces.

Pillar Three Response and Containment

DoD will ensure policies and guidelines are in place to limit the spread of a pandemic influenza outbreak and to mitigate health, national security, economic and social impacts. Examples include: clinical guidelines concerning the screening, diagnosis, treatment and management of patients with confirmed infection or suspected exposure have been developed along with policy guidance for commanders to exercise emergency health powers.

DoD will continue to develop plans and policies that contribute to an active, layered defense and will work diligently to ensure our nation is prepared to face a future pandemic threat.

Department of Defense Program Protects Human Research Participants

By Caroline Miner, FHP&R Health Science & Force Optimization and Gina Pattison, FHP&R Staff

Service members and their families are more likely than members of the general public to be sought by researchers for participation in research studies and surveys because of their unique experiences. The U.S. Food and Drug Administration (FDA) is responsible for regulating studies of new drugs and devices (<http://www.fda.gov/comments/reg.html>), but less commonly known is whether anyone is regulating other kinds of research or regulating all the companies and government agencies collecting personal information. There are, in fact, a host of rules and regulations that apply when the federal government is involved in research or other information

collection. For example, whenever federal dollars are used for research on human subjects, whether by a university researcher with a federal grant, a research firm with a federal contract, or by the government directly, regulation requires that the research be reviewed to ensure it is ethically appropriate and in compliance with all laws. In DoD, the Human Research Protection Program (HRPP) conducts these reviews. The HRPP is composed of a network of Institutional Review Boards (IRBs), Exemption Determination Officials (EDOs) and oversight offices. The oversight office for research conducted or funded by offices under the purview of the Under Secretary of Defense

(Personnel & Readiness) is FHP&R. Oversight for the Army, Navy and Air Force are run through their offices of the Surgeon General. To learn more about the HRPP, visit <http://fhp.osd.mil/hrpp.jsp>.

The Privacy Act requires protection of the information once it is collected.

All information collection, including research surveys, interviews and focus groups, are subject to information management control requirements. These rules help ensure quality standards for DoD information requests, seek to eliminate duplication of effort, and promote coordination of effort across the Services. Finally, the Privacy Act requires protection of the information once it is collected.

Service members who have been with DoD for a long time may have received a Status of Forces Survey (SOFS) from Defense Manpower Data Center (DMDC) and Dr. Chu, the Under Secretary of Defense for Personnel and Readiness USD (P&R). The SOFS begins with a privacy act notice and a consent form. The privacy act notice tells Service members that the data, once received, will be stored in a system that is controlled and protected.

The consent form, which includes HRPP contact information, tells Service members that the survey procedures have been reviewed to ensure protection of their data and that the consent form itself has been reviewed to ensure full disclosure of the purpose and uses of the survey. Finally, the Report Control Symbol in the upper right hand corner tells Service members that the survey meets scientific quality standards and that it is an official DoD information collection. ♦



U.S. Air Force Photo

Colonel (Dr.) Michael Henderson monitors Capt. Scott Frost's treadmill test in the clinical sciences division at the USAF School of Aerospace Medicine. Professionals in the division cardiac evaluation program conduct extensive tests on hundreds of aviators each year to locate cardiac problems.

A Conversation with Dr. Salvatore Cirone

Program Director, DoD Health Science and Force Optimization

Q&A by Gina Pattison, FHP& R Staff

Q When Congress puts many millions of dollars into DoD medical research budget, how do you determine how to spend it?

A Since 1993, Congress has added substantial funds to the DoD Defense Health Program budget for medical research in response to constituents, lobbyists and advocacy organizations. Historically, most of these funds were earmarked for research on breast cancer, prostate cancer, ovarian cancer and blood cancers. Congress also allocates other funds and provides a list of illnesses or conditions to apply them to, leaving it to DoD to determine how to allocate funds among them. We have been assigned the job of managing implementation to the U.S. Army Medical Research and Materiel Command (USAMRMC) at Fort Detrick in Maryland. The funds go to this organization's Congressionally Directed Medical Research Program. USAMRMC will advertise online for research idea summaries. DoD experts invite the researchers with the best ideas to submit a proposal. Those proposals are sent nationwide to subject matter experts to rate them on technical merit. The highest rated proposals are submitted to a DoD panel that considers non-technical aspects, such as military relevance. The panel ranks the proposals and applies available funds to the top ranked ones. Ultimately, the USAMRMC commander has final approval on what gets funded.

Q What is the Human Research Protection Program and what does it do?

A The Health Science and Force Optimization (HS&FO) capability area manages the Human Research Protection Program (HRPP) for the Office of the Under Secretary of Defense for Personnel and Readiness

OUSD(P&R). The HRPP reviews all research activities conducted or sponsored by P&R components to ensure the research is ethically appropriate and conducted in compliance with statutory and regulatory requirements. P&R sponsors and conducts a wide range of research involving human subjects; for example, the Uniformed Services University of the Health Sciences (USUHS) sponsors medical research related to battlefield health care, TRICARE Management Activity (TMA) sponsors research related to improving health care for DoD beneficiaries, P&R policy offices sponsor research related to policy issues like combating veteran unemployment and other P&R offices sponsor congressionally directed research into hot topics like improving care for returning wounded warriors or monitoring programs for preventing sexual harassment.

Q What about research at DoD medical centers?

A Deputy Assistant Secretary of Defense for Force Health Protection & Readiness, Ellen Embrey oversees DoD's clinical investigation programs or CIPs. My team handles that for her day-to-day. Many major Service medical centers have CIPs as does our prime continuing medical education organization, Uniformed Services University of the Health Sciences (USUHS). These programs aim to advance knowledge on preventing and treating illness and trauma, give clinicians in training an opportunity to become involved first hand in application of science to health care and support national accreditation of our medical education programs where clinical investigation training is valued highly. In addition to routine and continuing oversight, we make about three audit visits a year to various

medical centers with CIP programs. Annually, Ms. Embrey receives briefings on CIP implementation from each Service and USUHS.

Q What is DeployMed ResearchLINK?

A DeployMed ResearchLINK is a Web site that was established to inform Service members, researchers and health care providers, leaders and interested others about DoD and other federally-funded research on deployment-related health issues. DeployMed ResearchLINK presents information on deployment medical research conducted and supported by federal research programs within DoD, VA and HHS related to deployments from the 1990-91 Gulf War forward. Visit the site at <http://fhp.osd.mil/deploymed>.

Q How does DoD work with the Departments of Homeland Security and Agriculture and the Food and Drug Administration to ensure U.S. food and agriculture are secure?

A As a participant in the Food and Agriculture Government Coordinating Council (GCC), DoD works with DHS, USDA, the FDA and other federal and state government agencies to increase security of the entire agriculture and food spectrum from farm to fork. The GCC's objective is to provide effective coordination of agriculture and food security strategies, activities, policy and communication across government and between the government and the private food and agriculture sector to support the nation's homeland security mission. The GCC plays a coordination role with the public health and clinical communities in the event of a terrorist act involving the food supply. ♦

Simulation Center Improves Combat Casualty

by Lt. Brian Haack, USN DMRTI

Two years ago, Combat Casualty Care Course (C4) Officer in Charge, Cpt. Troy Vaughn had an idea to convert an old, run-down warehouse into a state-of-the-art simulation center to improve the training students get at C4. "I just had an idea for an under-utilized warehouse—the guys [C4's Non-commissioned Officers] made this happen." Vaughn said, "They did all the grunt work that made this a reality. Even though I know them, and I know what they're capable of, I'm still amazed by how well this turned out."

After a little help from the Navy's Mobile Construction Battalion 22, the C4 staff pulled together and morphed this old warehouse into what is now known as the Tactical Simulation Center, or TAC-SIM.

TAC-SIM turned out so well in fact, that when it went live, the C4 staff wasn't even the first to use it. When the instructors at the U.S. Army's 232 Medical Brigade needed a training site to hold their annual "Best Medic" competition, TAC-SIM won them over unanimously.

One of the things that makes TAC-SIM so special is that instructors no longer have to produce make-believe symptoms and time-tables for treat-

ment. Now the simulated patient runs a computer program that accurately simulates expected physiologic responses to injury and subsequent treatment. A wide variety of patient trauma scenarios can be run on the simulators according to C4's Training Platoon Sergeant, Sergeant First Class Florez-Artola who explains the value of training with these computer-driven simulators, "We no longer have to consider the errors caused by human nature. If an instructor is tired at the end of the day, he can't speed things up, or make it easy on the student just to finish. The last student of the day gets the same quality of training that the first student got, because the simulator is running the same program."

Perhaps the most impressive thing about these simulators is that if a simulated patient indicates the need for a certain treatment, the student actually has the opportunity to perform the needed procedure.

The student no longer simulates the procedure, so the training staff is no longer asked to provide hypothetical



Photo by Lt. Brian Haack

First Class Alan Butler (right) works with a technology team member from Medical Education Technologies Inc. (left) as they tailor a Combat Trauma Simulation Scenario at the Combat Casualty Care Courses, Tactical Simulation Center (TAC-SIM).

judgments on techniques that were never actually performed.

Defense Medical Readiness Training Institute's (DMRTI) Dean of Academic Support is Nurse Corps Commander Jose Gonzalez. He thinks the realism of the new training format is far more practical than former methods.

"If the students think a patient needs a catheter, they actually have to insert one. The decision to use a catheter opens the door to other things that have to be checked, like urine output, the presence of blood and a lot of other things. If the student misses something important, the patient will get worse. They don't need to ask the instructor to drive the scenario anymore," said Gonzalez.

Jay Anton, agrees that C4 is unusually realistic in its approach to trauma training. He is the Chief Technology Officer and Vice



Photo by Lt. Brian Haack. U.S. Air Force

President at Medical Education Technologies, Inc.

His staff from Medical Education Technologies was on hand during the grand opening of the TAC-SIM to help the C4 staff fine tune their scenarios and to address unusual engineering concerns for the first C4 class using the TAC-SIM and the Trauma simulations.

Mr. Anton believes that the C4 staff's approach to training is special; "They are one of the premier military sites that use our Combat Trauma Patient Simulation (CTPS) System as it was designed to be used." Anton later added "It will revolutionize the way military medical personnel train.."

The TAC-SIM also addresses the challenges of pre-hospital care with

a brand new urban warfare tactical movement environment that adds measured stressors including noise, smoke, darkness, foul smells and enemy fire to the list of concerns that front line Corpsman and Medics must contend with when treating patients in the urban warfare environment.

Hospital Corpsman Second Class Donald Struckmeyer supervises the Tactical Urban Warfare Environment in the TAC-SIM," For a line corpsman or medic, it's all about applying treatments quickly to prolong life until you can evacuate that patient to a surgical level of care. What we do here is add real world problems to the medical challenges," Struckmeyer said.

"It's noisy, dark, there is smoke everywhere and the place stinks to high heaven; and just when you

think you're on track, someone points a rifle through a doorway and starts shooting at you. If you get all the medicine right, and forget the tactical part, you and your patient will probably die together," he added.

The TAC-SIM also includes a self-supporting maintenance lab that allows the C4 staff to protect and maintain their equipment. They can also modify their training scenarios as needed to make training more indicative of current doctrine.

If needed, they can even write new scenarios that reflect late-breaking emerging doctrine—that is—they are now able to write and validate training objectives to reflect what is happening in Iraq and Afghanistan today, before those treatment modalities become doctrine. ♦



TC2: Improving Battlefield Technology

Advances in battlefield technologies have made it possible for electronic communication and record keeping to take place from even the most remote environments.

In May 2007, the Theater Medical Information Program began to deploy the Theater Medical Information Program Composite Health Care System Caché (TC2), an upgrade to the Composite Health Care System New Technology (CHCS-NT).

TC2 offers several advantages over CHCS-NT, including better supportability, expanded capability for documenting care and improved patient visibility.

TC2 allows health care providers to document and view inpatient medical data collected in theater

anytime, anywhere, worldwide.

TC2 gives providers at combat support hospitals the same capability as the military's fixed facilities for inpatient documentation.

TC2 provides the capability for recording treatment notes (both pre- and post-operative); ordering and viewing of test results and compiling discharge summaries for wounded or ill service members.

When TC2 patient encounters are completed, they are sent to the Theater Medical Data

Store, where they can be viewed through the NIPRNet as part of a consolidated chronological patient record.

They are also put into the classified Joint Medical Workstation (JMeWS), where they support medical surveillance, and medical command and control, and are available for viewing through the SIPRNet.

In the future, records will be transmitted to the AHLTA Clinical Data Repository, where they will become part of Service members' life-long electronic medical record.

DoD-GEIS, through the efforts of all its partners

- Conducts active global health surveillance for infectious diseases that might affect our military personnel and their departments.
- Carries out preventive programs to reduce or eliminate the risk of infectious diseases.
- Trains DoD and non-DoD health personnel (at their expense) in DoD laboratories and other DoD facilities and programs.
- Develops, in conjunction with other health programs, a robust core of preventive health/medicine (including epidemiology) expertise.
- Educates DoD personnel on the risk of infectious diseases and the actions which can help reduce the risk.
- Sustains and strengthens DoD's detection and diagnostic capability, especially in the continental United States and overseas laboratories operated by DoD.
- Sustains and strengthens DoD's response system for addressing threats to military personnel and their families.

A Look at DoD-GEIS

The Global Emerging Infections Surveillance and Response System

DoD-GEIS is designed to strengthen the prevention and surveillance of and response to infectious diseases that are a threat to military personnel and families, have the potential to reduce medical readiness or present a risk to U.S. national security.

DoD-GEIS mission is to increase DoD's emphasis on prevention of infectious diseases, strengthen and coordinate its health surveillance and response efforts and run a centralized coordination and communication hub to help organize DoD resources and link with U.S. and international efforts.



The DoD-GEIS Director directs the Tri-Service staff of the central hub which helps coordinate prevention, surveillance, and response efforts internally and externally; encourages and assists education, training and research efforts in DoD; and facilitates communication and information flow across DoD.

The central hub leverages the surveillance and response assets of a network of DoD service hubs and overseas medical research units. In addition to these facilities, the DoD-GEIS consortium in the United States includes the U.S. Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, Maryland; the U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, Maryland and the Naval Environmental Health Center, Norfolk, Virginia. DoD-GEIS has established strong working relationships with the U.S. Centers for Disease Control (CDC) and international health agencies.

These partnerships with U.S. and non-U.S. public and private sector agencies links the DoD response system with the overall U.S. and international system for addressing infectious disease threats worldwide.

DoD-GEIS was established in June 1996, when President William J. Clinton expanded the DoD mission to include support of global health surveillance, training, research and response to emerging infectious disease threats. Clinton called on DoD to strengthen its global disease reduction efforts through: centralized coordination, improved preventive health programs and epidemiological capabilities and enhanced involvement with military treatment facilities and United States and overseas laboratories. ♦

Understanding Embedded Fragments

By Scott Stearns, FHP&R Staff Writer

The increasing effectiveness of military medicine on the battlefields of Iraq and Afghanistan is having a significant impact on the health of our combat forces. Through the advancement in technology and the heroic efforts of health care providers at all levels, Service members injured on the battlefield have an increased chance of surviving their wounds.

One of the consequences of an increased survival rate is the fact that more Service members are living with embedded fragments received during combat. These fragments, received through wounds from Improvised Explosive Devices, direct fire weapons or other battlefield threats, are raising concerns about the long-term implications of living with certain embedded metal fragments.

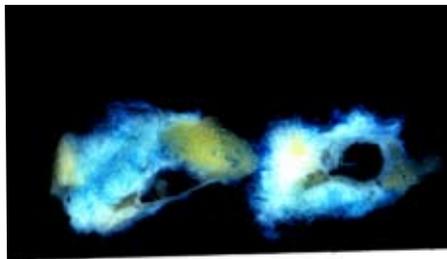


Photo courtesy of Dr. Jose Centeno at AFIP
Photo of the tissue removed from the shoulder. The black area in the center is the foreign body-depleted uranium remnant.

We know that the vast majority of metal fragments present no long-term health risks due to their chemical composition.

Military arsenals around the world are increasing their reliance on modern technology. The search for more effective munitions has led to the use of many unique heavy metals on the battlefield. Metallurgical advancement is leading military forces around the world to use metal alloys in armor penetrating munitions and to replace the lead in certain forms of ammunition. Metal alloys may

present potential problems for health care professionals who are concerned about long-term exposure to embedded metal fragments.

Following the 1990-1991 Gulf War, DoD realized that embedded fragments from combat operations were an exposure where the long-term health effects were not fully understood. A series of medical investigations were funded to look specifically at embedded fragments, such as depleted uranium and tungsten/cobalt/nickel alloys. Two recent independent studies, conducted by the Armed Forces Radiobiology Research Institute and the U.S. Army Center for Health Promotion and Preventive Medicine, have demonstrated that the tungsten/cobalt/nickel alloy used in some armor-piercing munitions may pose a long-term health risk in the form of embedded metal fragments. Currently there is no evidence that this alloy is being used by our adversaries in Iraq or Afghanistan.

Animal studies indicated that rats implanted with a tungsten/cobalt/nickel alloy pellet developed cancerous tumors, but scientific research has also shown that some chemicals that cause cancer in rats do not cause cancer in humans.

While the health effects of embedded fragments of the tungsten/cobalt/

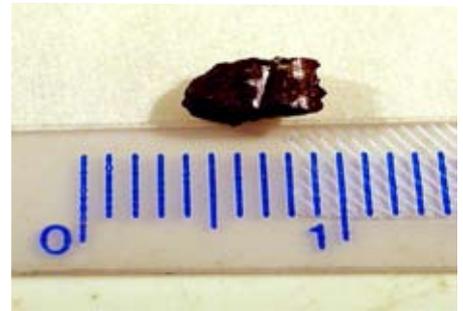


Photo courtesy of Dr. Jose Centeno at AFIP
Fragment from the Bio-Inorganic Toxicology and Microspectroscopy Lab that analyzes metal fragments removed from Service members and veterans, that are suspected of being depleted uranium.

nickel alloy warrant further study, and it is too early to draw definitive conclusions from these results, it was the opinion of a Health Affairs Advisory Panel (which included representatives from the military Services and the Department of Veterans Affairs) that there was sufficient scientific basis to require analysis of all metal fragments resulting from combat/terrorist operations that were removed from DoD personnel in DoD medical facilities based on surgical indications.

DoD recognizes that some munitions may contain metals and alloys that may pose a long-term toxicological hazard when retained in the human body. This allows health care providers to correctly diagnose and manage any future medical problems related to this issue. ♦

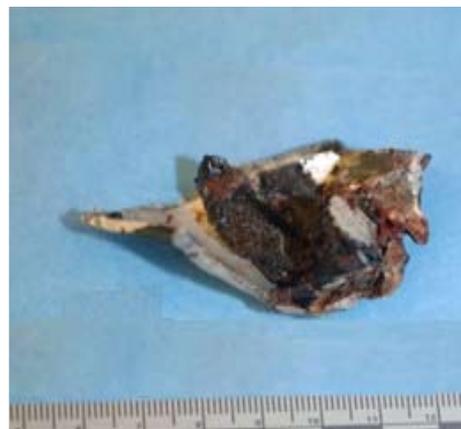


Image use courtesy of Dr. Lisa Pearce, AFIP
Embedded metal fragments provided by the Office of the Armed Forces Medical Examiner following removal of the fragments.

even more robust as its development continues. "Future versions of the bidirectional interface will expand to include patient problem lists, encounter notes, procedures, vital signs, family histories and potentially digital radiographic and other images," Kellett said.

BHIE's predecessor, the Federal Health Information Exchange (FHIE), allowed one-way secure transfer of medical information from DoD to the VA. Between them, the two systems have handled more than a million medical queries. In July 2007 providers made more than 85,000 queries through the BHIE and FHIE. Kellett thinks that this heavy usage is evidence that both the DoD and the VA find the information valuable in providing health care for wounded Service members and other beneficiaries, whether they receive their care in the Military Health System or in VA facilities.

"We are committed to providing responsive and sensitive support to Service members as they transition from active duty to veteran status and we are working to make the transition as seamless as possible," Kellett said. "The ability to share electronic health information is key to patient safety and continuity of care for separated Service members, disabled Service members receiving care from the VA and beneficiaries receiving care from both agencies."

Because we live in a society that has become accustomed to computerized fund transfers and electronic bill paying, it might be hard to understand why electronic health information exchange is so difficult. Exchange depends on the adoption of agreed upon specifications for how the data is defined, structured and communicated. The dataset is large and most of its elements are not yet standardized with regard to data structure or definition.

The entire national health care community is working toward

adopting common standards, which would enable sharing of data. DoD and VA are key contributors to this effort. To share computable electronic health information DoD and VA must standardize their data and agree on interagency codes for different data sets, such as pharmacy, allergy and laboratory data. But for some patients, exchange of medical information can't wait for the perfect future.

"Since February 2007, DoD has taken significant steps to ensure better continuity of care for our most severely wounded, ill and injured Service members," Kellett said. It is particularly important for medical records to move with these patients. Many of them go from the combat theater to Landstuhl Regional Medical Center in Germany, and then to a trauma center at Walter Reed Army Medical Center, the National Naval Medical Center or Brooke Army Medical Center. For those patients who then transfer to one of the VA's four polytrauma centers, medical data exchange is a priority.

"When a patient transfers from one of the DoD medical centers to a VA polytrauma center, their digital radiology images are also

transferred, along with a scanned copy of their paper medical records," Kellett said. "This helps ensure that all VA providers have access to the health data needed to expedite care for these patients."

In addition to these viewable records, the departments also exchange computable pharmacy and allergy data between DoD's Clinical Data Repository and the VA's Health Data Repository. As the standards for information sharing continue to mature, Kellett says the ability to exchange computable clinical information will keep expanding. BHIE makes health information viewable, but the progress made in real-time bidirectional exchanges of computable clinical information brings DoD and VA closer to the ultimate goal of complete electronic interoperability to support continuity of care.

"We have laid the ground work for even greater progress in the future," Kellett said.

"All of our collaborative efforts are focused on a single goal – enhanced quality and continuity of care for the men and women of the armed forces serving or having served our country."

FHP&R IN ACTION: Global Civil-Military Medicine



Photo by Senior Airman Shaun Emery, USAF

Patients line up in Pisco, Peru to get their prescriptions filled by members of Joint Task Force - Bravo. DoD deployed medical teams from Honduras and Texas to Peru to provide aid in the aftermath of an 8.0 magnitude earthquake that struck the area August 15, 2007.