



**DEFENSE HEALTH BOARD  
MEETING  
NOVEMBER 14, 2011  
Hilton Crystal City at  
Washington/Reagan National Airport  
Chesapeake Hall  
2399 Jefferson Davis Highway  
Arlington, Virginia 22202**

**November 14, 2011**

1. **ATTENDEES - ATTACHMENT ONE**
2. **NEW BUSINESS**
  - a. **Administrative Session**

**Discussion:**

Ms. Christine Bader, Defense Health Board (DHB) Director, provided an overview regarding the recently-established DHB subcommittee assigned to conduct a review of the Dover Air Force Base Mortuary. The Secretary of Defense requested completion of the report within 60 days following the first meeting of the subcommittee. Ms. Marianne Coates, DHB Senior Communications Advisor and Creative Computing Solutions, Inc. contractor, reminded members to forward any media inquiries to her.

Following, members reviewed the response received from Dr. Jonathan Woodson, Assistant Secretary of Defense for Health Affairs (ASD(HA)), regarding three of the recent DHB recommendations related to tranexamic acid (TXA), Tactical Evacuation Care (TACEVAC), and the Combat Ready Clamp™ (CRoC™). The ASD(HA) suggested that while the rationale employed in the TXA recommendation is well supported in the medical literature, TXA should not be administered in missions outside special operations settings, in which evacuation times exceed the optimal administration time for TXA. The response memorandum from the ASD(HA) highlighted the added stressors resulting from logistics, training, and implementation.

Discussion ensued regarding these considerations and Dr. Donald Jenkins, Trauma and Injury Subcommittee Chair, stated that he would return to the Subcommittee and Committee on Tactical Combat Casualty Care (CoTCCC) to discuss issues related to evacuation time and protocols for any theater. Members agreed that additional data should be identified and that a stronger, more clarified recommendation should be provided to the ASD(HA). Specific suggestions by members for the revised recommendation include:

- Acknowledge that the Joint Theater Trauma Registry (JTTR) lacks needed prehospital data.
- Acknowledge the increased training and logistical burdens associated with implementing the recommendations.

- Communicate the importance of prehospital documentation to the Line and recommend as a mandated activity.
- Examine any available data from the U.S. Army Institute of Surgical Research regarding casualty evacuation times.
- Examine the significant benefit of administering TXA within one hour following injury event (versus the current three hour recommendation).
- Determine the proportion of evacuations that are longer than 39 minutes, as well as the alternative protocol in such a situation. Include in the response a statement that the TCCC Guidelines serve as standard protocols for all theaters( not just Afghanistan) and evacuation times vary significantly across theaters.
- State where personnel are currently stationed as well as temporary conditions (such as a dusty, windy day) that may lead to evacuation setbacks.
- Recommend that TXA should be made available if there is a reasonable expectation that casualty evacuation would be delayed exceeding one hour.
- Identify any specific population subsets (such as the Rangers) that should start using TXA, despite that the recommendation was not approved for conventional forces by the ASD(HA).

The members then reviewed the response from the ASD(HA) regarding the TACEVAC recommendation, in which the ASD(HA) requested definitive evidence to improve TACEVAC care in theater. Dr. Gandy suggested that the Subcommittee be informed of the resources used by the Office of the ASD(HA) (OASD(HA)) to evaluate whether insubstantial data exist (such as JTTR queries), and stated that the cited 39-minute average evacuation time would not account for instances in which no evacuation occurred due to hostile fire or weather limitations. A member expressed concern that the current recommendations focused heavily on acquisition rather than clinical issues. Members agreed that the CoTCCC should gather adequate data and reword the current recommendation. Dr. Eve Higginbotham suggested that the Board would benefit from an open dialogue with the ASD(HA). Specific suggestions from members for revising the TACEVAC recommendation include:

- Emphasize data associating improved patient outcomes with increased provider training.
- Examine British Medical Emergency Response Team (MERT) internal study data.
- Reword recommendations to clearly convey a focus on analysis of personnel staffing on existing platforms.

In a meeting with Ms. Bader, the ASD(HA) requested clarification regarding the placement of the CRoC™ on lower extremities and its continued use throughout evacuation. Ms. Bader indicated that clarification was provided regarding the placement and that the CoTCCC could make an amendment to the CRoC™ recommendation memorandum language to address his concerns about evacuation. Such an amendment would note that if the CRoC™ is used, it should be continued through the TACEVAC phase.

Members discussed the way ahead in drafting recommendations, and agreed that the inclusion of appendices with supporting data, where necessary, and the establishment of a dialogue between the ASD(HA) and DHB, to ensure the Board responds to all questions and needs, would be helpful.

**Action/POC:** Determine potential response strategy to ASD(HA) regarding TACEVAC and TXA recommendations/Dr. Dickey.

**b. Opening and Administrative Remarks**

**Discussion:**

Dr. Nancy Dickey, DHB President, welcomed Board members and public attendees. Ms. Christine Bader, DHB Director, called the meeting to order as the DHB Alternate Designated Federal Officer. Following a moment of silence to honor Service members, Board members introduced themselves and Ms. Bader provided administrative remarks.

**Action/POC:** None.

**c. Information Brief: Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury**

**Discussion:**

CAPT Paul Hammer, Director, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE), provided a briefing regarding the recent activities and way ahead for DCoE. He reviewed the vision, strategic plans, current initiatives, emerging areas of interest, and future governance of DCoE, as well as his recent trip to Afghanistan. CAPT Hammer indicated that DCoE staff did not initially understand organizational alignment and expectations due to a vague value proposition. As such, DCoE leadership redefined DCoE's value proposition to establish DCoE as a principle integrator in improving diagnosis and treatment of psychological health and traumatic brain injury (TBI). For example, DCoE will translate evidence-based research into information that can be utilized for clinical care, clinical education, and further research. CAPT Hammer indicated that DCoE aspires to develop a Joint Theater Neurotrauma System, similar to the Joint Theater Trauma System, through which DCoE would collect and analyze data while developing clinical practice guidelines (CPGs) and similar support tools. Following, CAPT Hammer discussed the role of DCoE's activities related to surveillance, prevention, screening and assessment, diagnosis, treatment, rehabilitation, and reintegration. These include: a TBI exposure tracking system, involvement in the joint publication on total force fitness, a mood tracker mobile application, Co-Occurring Conditions Toolkit: Mild TBI and Psychological Health, the Real Warriors Campaign, and annual conferences.

CAPT Hammer then discussed the work of Gray Team Four. Gray Team Four was chosen to review issues related to mental health prevention and treatment stigma, sleep hygiene, standards of practice in TBI and behavioral health, the role of leadership, and feasibility and deployment of a behavioral health directive type memorandum. Its experts included representatives from the Service Chiefs, Combatant Commands, and the Chairman of the Joint Chiefs of Staff. Recommendations included embedded TBI care and behavioral health providers for high risk units, automated neuropsychological assessment metrics use for return to duty, nutritional supplement use, unit resilience training, and psychological first aid.

Dr. Jenkins inquired whether DCoE had shared any of its tools with the civilian and public sectors. CAPT Hammer stated that the materials are all freely available on DCoE's website and that DCoE provides training to civilian providers regarding how to relate to the military population. He also noted, in response to a question from Dr. Higginbotham concerning patient empowerment, that DCoE encourages patients to submit feedback on providers.

**Action/POC:** None.

**d. Information Brief: Battlefield Analgesia**

**Discussion:**

Dr. John Gandy provided a brief overview of the history of battlefield analgesia, the current uses and benefits of ketamine compared to alternative pain medications, and the future of battlefield analgesia. He noted that although morphine has been the predominant method of pain management, there are now options available which may better control pain. For example, he discussed the controversial introduction of the "fentanyl lollipop." Dr. Gandy reviewed the benefits of utilizing alternative medications to combat pain in a multimodal approach, but suggested that current use of these new medications is generally limited to special operations forces. In addition to various new medications, Dr. Gandy also discussed new routes of medication administration for ease of use, including transdermal, intranasal, and transbuccal. He noted that efforts to incorporate these methods into protocol have been unsuccessful.

Following, Dr. Gandy reviewed the specific attributes of ketamine, an NMDA receptor antagonist and a derivative of phencyclidine. Unlike most anesthetics, ketamine stimulates cardiac function rather than depressing it, while pharyngeal-laryngeal reflexes are maintained. He highlighted the uses of ketamine as a single agent surgical anesthesia in developing countries, as well as for peri-operative pain management, cancer breakthrough pain, and migraine headaches. After reviewing safety notes, side effect information, and dosages, Dr. Gandy presented a proposed change to the TCCC guidelines, which he would present to the CoTCCC and Trauma and Injury Subcommittee for further deliberation and a vote.

Discussion ensued regarding the proposed protocol. Dr. Gandy noted that ketamine is approved by the Food and Drug Administration for the use and dosages which he is recommending. He also highlighted study findings in which fixed doses of ketamine were administered, eliciting additional discussion pertaining to the proper dosage. Dr. Bullock cautioned against the use of ketamine in casualties with brain injury, to which Dr. Gandy indicated that he had found conflicting evidence regarding the effects of ketamine on TBI patients, and therefore preferred not to recommend its use in such casualties. Dr. Higginbotham suggested that recommendations exclude the use of ketamine on casualties with any suspected eye injury. She also noted that eye exams should be conducted prior to administering ketamine.

**Action/POC:** Discuss and vote on the proposed amendment to the TCCCC Guidelines/CoTCCC and Trauma and Injury Subcommittee.

**e. Information Brief: Rabies Response**

**Discussion:**

LTC Steven Cersovsky, Director, Epidemiology and Disease Surveillance, U.S. Army Public Health Command, provided a briefing regarding the public health response following a recent Soldier fatality due to rabies exposure. He reviewed the details of the case, in which a 24 year-old Soldier contracted rabies from exposure to a rabid dog while deployed to Afghanistan between May 2010 and May 2011. He began showing symptoms in August and passed away two weeks after the rabies diagnosis was confirmed. Following the death, the U.S. Army Medical Command (MEDCOM) representatives initiated a case contact investigation, resulting in the provision of post-exposure prophylaxis treatment to 24 individuals. Additionally, it was determined that many members of the unit had unreported animal contact and possible exposure to additional infected animals. As such, MEDCOM and the Army Surgeon General launched a phased response to identify and address the wide range of potentially exposed troops.

LTC Cersovsky described the phased investigation approach. Phase I included contacting all Service members or individuals who may have been in contact with the particular individual involved in the case during the previous 18 months. Phase II involves identification of all active case findings of Service members deployment worldwide who may have been exposed to rabies, but did not report exposure; this phase is currently ongoing. The final phase, which is also ongoing, includes the identification of passive case findings and global outreach via internal and external communication channels. Lastly, LTC Cersovsky reviewed the way ahead with regard to education and prevention efforts. Discussion ensued regarding the value and benefits of rabies vaccination to Service members.

**ACTION/POC:** None.

**f. Information Brief: Omega-3 Deficiencies and High Risk Behavioral Disorders**

**Discussion:**

The Board received an overview of omega-3 highly unsaturated fatty acids (HUFAs) from CAPT Joseph Hibbeln, Acting Chief, Section on Nutritional Neurosciences Laboratory of Membrane Biochemistry and Biophysics, National Institute on Alcohol Abuse and Alcoholism. He emphasized the mental and physical benefits of an omega-3 rich diet, and provided an overview of the data supporting these benefits. CAPT Hibbeln stated that the widespread omega-3 fatty acid deficiency is as important to public health as lowering cholesterol. He then reviewed published literature from 63 countries demonstrating a correlation between omega-3 HUFA deficiency and the risk of death, stroke, major depression, homicidal tendencies, and bipolar disorder. Additionally, data suggest that omega-3 may prevent arrhythmia and reduce the risk of heart attack and cardiac arrest, while also preventing impulsive high risk behavior and reducing depression.

CAPT Hibbeln noted that while adequate diet research can take many years to collect, current research suggest that the U.S. Military Service member diet is substantially deficient in omega-3

fatty acids. He reviewed possible modalities for increasing omega-3 HUFAs in Service members' diets, including capsule supplementation, fresh seafood and omega-3 enriched manufactured food products. CAPT Hibbeln indicated that supplements may be problematic due to compliance issues; fresh seafood would be difficult due to resource and location constraints; and omega-3 enriched manufactured food products would be expensive. However, the "Super Chicken" project which will modify chicken, eggs, and pork products to be high in omega-3 HUFA and low in omega-6 would allow Service members to maintain their current diet, while receiving higher levels of omega-3.

**Action/POC:** None.

**g. Information Brief: DoD Nutritional Research Activities**

**Discussion:**

Dr. Scott Montain, Deputy Chief, Military Nutrition Division, U.S. Army Research Institute of Environmental Medicine (USARIEM) outlined DoD nutritional research activities, including nutrition physiology, ration sustainment testing, and dietary supplement research. He indicated that the main contributors to DoD research are the Combat Feeding Directorate (ration development) and USARIEM (nutritional requirements). The USARIEM mission is to support the Army Surgeon General in prevention through improved nutritional awareness and monitoring.

Dr. Montain discussed several fundamental research objectives and highlighted ongoing research endeavors at USARIEM. Areas of focus include the mission to enhance Service member health, performance, and resilience through optimized nutrition as well as the study of nutrition requirements of recovery, reset, and medical readiness. Dr. Montain provided several examples of ongoing nutritional and dietary supplement research at USARIEM. Dr. Montain indicated that a study is being conducted to determine whether higher protein diets protect musculoskeletal health during prolonged energy restriction, and whether requirements vary based on the level of exercise. Similarly, another study will examine the effects of different protein sources on bone health. Dr. Montain noted that compliance in taking dietary supplements is an ongoing issue and as a result, nutritional supplements may not provide adequate support.

Discussion ensued regarding the ongoing nutritional studies. Dr. Jenkins inquired whether USARIEM collaborates with the Air Force and the other Services to study new recruits while in training, to which Dr. Montain responded that historical data for comparison was limited, and that although some studies have been conducted with trainees, command support is difficult to obtain. Maj Gen (Ret) George Anderson recommended studying the nutritional status of military members based on occupations. Dr. Carmona agreed and noted that the large body of sports nutrition literature may be valuable. Dr. Montain concluded by emphasizing the importance of improving nutrition education for Service members.

**Action/POC:** None.

**h. Information Brief: Joint Task Force National Capital Region Medical – Integration of Services**

**Discussion:**

VADM John Mateczun, Commander, Joint Task Force National Capital Region (NCR) Medical (JTF CAPMED) provided an update regarding the Base Realignment and Closure (BRAC) integration of health services within the NCR. He reviewed the construction and relocation progress at Walter Reed National Military Medical Center (WRNMMC) and Fort Belvoir Community Hospital (FBCH), to include a summary of efforts to ensure that the facilities meet world-class standards. VADM Mateczun discussed the transition to a single civilian personnel workforce and highlighted the benefits of the Wounded Warrior lodging. He noted that the reassignment and transition of over 30,000 enrollees from the former Walter Reed Army Medical Center to other NCR medical treatment facilities was successful. One benefit was the consolidation of all referrals and improved referral management.

VADM Mateczun discussed the way ahead for medical networks in the Military Health System including WRNMMC. There is a plan to execute a joint medical information management/information technology platform that would facilitate sharing of medical records and clinical data. Similarly, functions have been consolidated to reduce overlap between WRNMMC and FBCH, such as creating one common call center.

The ASD(HA) and many members commended VADM Mateczun for his leadership. Dr. Dickey inquired about the deadline to complete outstanding renovations and construction, to which VADM Mateczun responded that the President's budget submitted to Congress, includes funding for NCR BRAC through 2016 to allow for necessary updates. In response to a question from Dr. Higginbotham, VADM Mateczun noted that JTF CAPMED is collaborating with the Harvard Business School and the Harvard Kennedy School to create a monograph and case study of the NCR BRAC transition.

**Action/POC:** None.

**i. Information Brief: United States Military Joint Trauma System Assessment**

**Discussion:**

Dr. Michael Rotondo, Chairman of the American College of Surgeons Committee on Trauma (ACS COT), provided a briefing pertaining to his recent review of the Joint Trauma System (JTS) and report to U.S. Central Command (CENTCOM). He began with an overview of the history and purpose of the ACS and the COT. Following, Dr. Rotondo reviewed the sites which he and his review team visited on their recent two-week tour of the Joint Theater Trauma System (JTTS) in Afghanistan and Germany. He indicated that although high-quality clinical care is being delivered in theater, there is little integration of infrastructure across systems. Dr. Rotondo reviewed the overarching principles of systems theory and concluded that this lack of coordination within JTTS is problematic.

In their final report to CENTCOM, the review team made several detailed recommendations to improve the current JTTS system of care. Dr. Rotondo provided a brief overview of those recommendations, which include: assigning JTS as the statutory lead agency with authority to set policy and enforce standards of excellence; improving clinical information sharing; developing an electronic medical record that is secure and instantly visible throughout JTTS; implementing an overarching performance improvement and patient safety plan; streamlining the institutional review board process; increasing the balance between combat skills and trauma training; and developing a more effective team transition manual. Dr. Rotondo indicated that obtaining the commitment of leadership through the proposed transformation of the JTS, and developing a plan for the sustainment of the new system, would be integral to success. He noted that ACS intends to publish *Joint Trauma System: Development, Conceptual Framework, and Optimal Elements* in January or February 2012.

Dr. Carmona suggested that it would be beneficial to collaborate with Allied Forces to determine any challenges for Allied surgeons which may result due to differing best practices. Dr. Rotondo agreed. Dr. Jenkins offered the support of the Trauma and Injury Subcommittee for any efforts or challenges moving forward. RADM Delany recommended researching and documenting additional information regarding policy and structural analysis to better understand the JTS structure for future conflicts. COL Katherine Richardson, British Service Liaison Officer noted that the findings are in line with the British perspective. Board members agreed that there is a challenge on a multinational level and the next step should be determining the most productive way to collaborate with Coalition partners to improve the current system.

**Action/POC:** Determine the way ahead for the DHB to address issues and recommendations raised by Dr. Rotondo/Dr. Jenkins.

### **1. Administrative/Closing Remarks**

#### **Discussion:**

Dr. Dickey thanked the members and public attendees for their participation. Ms. Bader provided administrative remarks regarding activities for the evening, after which the meeting was adjourned.

**Action/POC:** None.

### **3. NEXT MEETING**

The next DHB meeting will be held February 21-22, 2012 at the Marriott San Antonio Rivercenter Hotel in San Antonio, Texas.

**4. CERTIFICATION OF MINUTES**

I hereby certify that, to the best of my knowledge, the foregoing meeting records are accurate and complete.

  
Nancy W. Dickey, MD  
\*President, Defense Health Board

  
Date

\*at the time of the meeting