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The Naval Operational Medical Lessons Learned Center (NOMLLC) newsletter is an “initial impression” summary that identifies key observations and potential lessons from various collection efforts. These observations highlight potential shortfalls, risks or issues experienced by units that may suggest a need for change. The observations are not service-level decisions. In addition, some information in this newsletter has been compiled from publicly available sources and is not official Navy policy. Although the information has been gathered from reliable sources, the currency and completeness of the information is subject to change and cannot be guaranteed. Your comments on any topics addressed in this newsletter or the website are welcomed. Please direct questions or comments to LCDR Mary Graves or Mr. Gerry Williams at (850) 452-7716 DSN: 922-7716.
Medical Lessons Learned Website Updates

If you have logged onto the website recently you will notice that it looks surprisingly different. The Joint Lessons Learned Information System (JLLIS) standardized the format of most of the Military Lessons Learned Websites. This update contains significant changes but the observations and document library are still available for you to search and add information as needed. A keyword filter box has been added that allows you to find all observations, documents and community of practice (COP) pages in a single search on each of the LL websites.

The goal of this implementation was to provide the users with the most commonly used features displayed prominently in the center column for easy access. Your Medical Lessons Learned team stands ready to facilitate all of your questions and concerns with this new interface. You may contact us by calling (850)452-7716 or by using this email link.

Many DoD organizations have converted their email addresses using new naming conventions. The new naming conventions help identify the member as being in the military, DoD civilian, or contractor by using .mil, .gov, and .ctr following their name within their email address. To ensure you continue to receive newsletters from NOMLLC, members should review their JLLIS profile and make any necessary updates.

You can review and edit your profile by clicking your name in the upper right corner of the JLLIS Home Screen or by clicking here.
Sailors of the Nimitz-class aircraft carrier USS Carl Vinson (CVN 70) and the embarked Carrier Air Wing (CVW) 17 recently returned from a scheduled deployment to the Western Pacific and U.S. Central Command area of responsibility. The mission of the Carl Vinson Carrier Strike Group focused on maritime security operations and theater security cooperation efforts, which helped establish conditions for regional stability.

The Senior Medical Officer (SMO) for this cruise was COL Boyd, the first Air Force physician to serve as a SMO onboard a carrier. He acknowledges his prior service as a Naval Flight Officer as the reason he was able to seamlessly transition to the shipboard medical atmosphere.

The CARL VINSON Cruise Report for their WESTPAC Deployment of 2011-12 is a brief summary of the most significant issues as compiled by the Medical Department Staff. The lessons learned and insight provided would be extremely helpful to those who have never deployed on a shipboard platform. During their deployment the medical staff of the CARL VINSON were challenged with a suspected Norwalk VGE outbreak following a port visit to Hong Kong, the phasing out of their VITROS chemistry analyzer for a new Piccolo analyzer, and developing a system that allowed them to efficiently screen more than 1,000 tiger cruise requests, resulting in less than 10 tigers needing to be seen during the cruise.

Specific lessons are highlighted in the box below or you can view all 30 lessons by clicking here.

- SMO’s key to high Medical Readiness
- Keys to managing Supplies
- Keeping everyone in the loop for MEDEVACS
- Have a plan for the PHA / PE Process
- Do your FHP Planning early
- Telemedicine for Fracture Care
- Best practice for Chronic Medications
- What every Admin Officer needs to know

Medical Lessons Learned Realigns to BUMED

On July 16th, the Naval Operational Medical Lessons Learned Center realigned from the Navy Medicine Support Command M5 directorate to the BUMED M3 Directorate. This was part of the larger Navy Medicine Enterprise Re-Organization.

RDML McCormick-Boyle explain in an email to the BUMED staff that, “The realignment is designed to enhance accountability, command and control, and ensure representation of Navy equities both across the enterprise and throughout the Fleet.”

The Lessons Learned Center anticipates that this move will allow for enhanced access to after action information and will provide more options to the issue resolution process. RDML McCormick-Boyle’s comments can be viewed by clicking here.
The Combat Logistics Battalion 22 (CLB-22) deployed as the Logistics Combat Element (LCE), 22d Marine Expeditionary Unit (22d MEU). The battalion was embarked onboard the Bataan Amphibious Ready Group (BATARG) which was responsible for providing maritime security operations and theater security cooperation efforts in the U.S. 5th and 6th Fleet areas of responsibility.

Throughout most of the deployment, the BATARG conducted disaggregated operations, either across COCOM's or dispersed within the same theater. Certain CLB-22 capabilities were "one of one" assets and thus impossible to duplicate on multiple ships to accommodate disaggregated operations. Their AAR captures pertinent lessons learned from their deployment and discusses how they overcame challenges. Specific medical observations are identified below.

- Assigning medical personnel to advance parties
- Green-side medical care
- Providing medical care to MEU subordinate elements
- Shock Trauma Platoon (STP) employment

While deployed to the Sangin Valley, Helmand province, Afghanistan the 3d Reconnaissance (Recon) Battalion conducted company level counterinsurgency operations. Their AAR points out that a Marine was the first responder for every single casualty during the deployment and stresses the importance of pushing medical training down to every sailor and marine. To view their lessons and After Action Report click here.

Regimental Combat Team 5's (RCT-5) After Action Report (AAR) covers their deployment to Afghanistan in support of Operation Enduring Freedom (OEF) from 16 August 2011 to 4 August 2012. This report provides a concise roll-up of medical lessons learned across the regiment during its deployment. All the issues identified below can be viewed by clicking on the appropriate hyperlink. The RCT5 AAR Brief can be viewed by clicking here.

RCT 5 Medical Observations:

Access to medical department instructions, orders and policies
Preventive Medicine
Medical evacuations and casualty tracking
Medical holding and billeting
Medical Civil Military Operations
Host National Military medical development
CASEVAC coverage and laydown
Operational Stress Control and Readiness (OSCAR) Mentor/Extender training

Additional Health Service Support information collected from OEF deployments can be found by visiting the OEF HSS AARS/Observations Topical Site.
Pre-deployment Training Assessments of Navy Medicine Personnel Deploying to Afghanistan

Role 3 Multi-National Unit and the Role 2 units in southern Afghanistan have Navy Medicine personnel deploying as individual augmentees (IA’s). In order to ensure that they receive the unit-specific medical training outlined in the US Central Command (CENTCOM) requirements, the Naval Expeditionary Medicine Institute (NEMTI) provided its inaugural Role 3 and Role 2 training in January and March 2012 respectively. NOMLLC was tasked to collect feedback on the NEMTI training after the attendees were performing their deployment duties to identify the usefulness of the training and areas for improvement. The feedback provided within the NOMLLC Report highlighted the benefits of utilizing instructors with recent mission-relevant experience. Recommended areas for improvement included: tailoring the training, upgrading NEMTI facilities, and reviewing the Navy Knowledge Online (NKO) and Army pre-deployment training content. Findings were provided to Navy Medicine leadership and training stakeholders for preparing future deployers. Changes were implemented for the summer 2012 training.

Trauma training serves as the foundation for the management of combat-related injuries. As a result, pre-deployment training standards, guidelines, and requirements have been developed by U.S. Central Command (CENTCOM), Navy Personnel Command (NAVPERS), and Bureau of Medicine & Surgery (BUMED) for deploying medical personnel. A majority of these requirements which are categorized by BUMED as phase-one requirements are intended to be completed before detaching from the member’s sourcing command.

In June of 2012 the Naval Operational Medical Lessons Learned Center (NOMLLC) conducted a collection focusing on the completion of pre-deployment phase-one medical training for personnel scheduled for deployment to Kandahar Role III, Multinational Medical Unit or as a member of Forward Surgical Team located in Afghanistan. This collection was designed to provide Navy Medicine leadership insight into the compliance with phase-one training and act as a tool to aid in identifying pre-deployment training issues that may require corrective action.

The internet-based questionnaire was distributed to personnel who had less than 30 days before reporting to their first intermediate stop prior to deployment. The results of the report included responses from 202 or 85% of the scheduled deploying personnel. Demographics of the respondents included 139 active duty and 63 reservist, which included 25 Medical Corps 60 Nurse Corps, 16 Medical Service Corps, and 101 Hospital Corpsmen.

The results of that survey are summarized in a July 2012 report and may be viewed by clicking here.
Combat Ready Clamp (CRoCTM)

Hemorrhage remains a major cause of death on the battlefield. While deaths from extremity hemorrhage have been reduced dramatically by the application of tourniquets, deaths from high extremity wounds are still a leading cause of mortality in the current conflict in Afghanistan. Tourniquets may be difficult or impossible to apply at these sites and QuikClot Combat Gauze may not always be effective at controlling the hemorrhage. The Combat Ready Clamp™ (CRoC™) is a U.S. Food and Drug Administration (FDA) approved medical device indicated for the control of hemorrhage in the inguinal area that is not amenable to the application of a tourniquet.

The effectiveness of the CRoC™ was recently validated in a published report. The July 2012 report, Evaluation of the Combat Ready Clamp to Control Bleeding in Human Cadavers, Manikins, Swine Femoral Artery Hemorrhage Model and Swine Carcasses provided sufficient data to support continued fielding of the CRoC™ as means of controlling junctional hemorrhage in battlefield casualties. The complete findings of the study can be reviewed by clicking the above hyperlink.

The Tactical Combat Casualty Care (TCCC) guidelines currently recommend the use of a CRoC™ on lower extremity wounds that are not amenable to tourniquet application and cannot be controlled by hemostatic dressings. To view the instructional video describing the proper techniques for application of the CRoC™, click here.

PHOENIX EXPRESS 2012 After Action Report and Guidebook

Phoenix Express is an annual exercise based out of the NATO Maritime Interdiction Operation Center in Souda Bay, Greece. This exercise, which focuses on interoperability and multinational cooperation between the 13 participating countries, provided an opportunity for the participants to exchange best practices and share proven techniques. The US medical teams involved in Phoenix Express 2012 were able to provide combat lifesaver training and share casualty evaluation techniques. A mass casualty exercise allowed participants to test and evaluate their new skills. Medical issues identified during this exercise are provided in the After Action Report. Additional medical information can be found in the Phoenix Express 2012 Guidebook.
Concussion Management in Deployed Settings: Critical Updates 2012

Traumatic Brain Injury (TBI), often called the signature wound of the Iraq and Afghanistan wars, occurs when a sudden trauma or head injury disrupts the function of the brain. Most reported TBI’s among Operation Enduring Freedom service members have been caused by improvised explosive devices (IEDs).

In an effort to assist medical personnel in the diagnosis of concussion or mild Traumatic Brain Injury (mTBI), the Defense and Veterans Brain Injury Center has developed the 2012 Concussion Provider Kit, designed for use in a deployment setting. The kit includes an updated Concussion Management Algorithm and an updated version of the Military Acute Concussion Evaluation (MACE). In addition to the kit, two separate training presentations were also developed to provide an overview of the updated changes to the algorithm and the MACE exam. These presentations may be viewed by clicking on links below.

Concussion Management in Deployed Settings: Critical Updates 2012
Military Acute concussion Evaluation Training

Additional information, tools, and fact sheets that are referred to in the Concussion Management Algorithm may be viewed by visiting the DVIBC website or by clicking on the below links provided.

- Acute Stress Reaction Fact Sheet - Designed to provide background on Acute Stress Reaction (ASR) for the primary care provider
- Acute concussion educational brochure - All service members diagnosed with concussion in-theater should be given detailed discharge information about signs and symptoms of concussion
- Neurobehavioral Symptom Inventory (NSI) - The NSI is a validated measure that captures information on 22 common subjective complaints which may occur following a traumatic brain injury
- Line Leader Fact Sheet - Instructions for line leaders and commanders on when to evaluate service members for possible TBI after an incident (Available as PDF only)
- ICD-9 Coding Guidance for Traumatic Brain Injury - Fact Sheet - Pocket Card
- Neurocognitive assessment tool (NCAT) clinical recommendations - Provides detailed guidance on indications for NCAT testing
- Mobile Applications
  - Mild Traumatic Brain Injury (mTBI) Pocket Guide (providers)
  - Co-occurring Conditions Toolkit (providers)
  - T2 Mood Tracker (patients)
  - Breathe2Relax (patients)
- Patient Education Materials
  - Healthy Sleep
  - Improving Memory
  - Mood Changes
  - Signs & Symptoms Fact Sheet
Army Medical Resources and Information

This US Army Public Health Command has developed a pamphlet that provides general information for maintaining health and performance during military operations. The Army Guide to Deployment Health contains health threat information and countermeasures, which cover a range of topics from pre-deployment packing to combat operational stress, that are based on lessons learned and the most current information available. To download the pamphlet, click here. To find more information concerning deployment health, visit the Navy & Marine Corps Public Health Center or the United States Army Public Health Command websites.

The Soldier's Guide to Mountain Warfare, was developed for personnel training for, or operating in, a mountainous environment. It reflects more than ten years of combat experience from the mountains of Afghanistan. An entire chapter of this publication is devoted specifically to medical concerns. The book stresses that Injuries or illnesses in mountainous terrain can be more serious than in other environments because of the harsh atmosphere, limited evacuation areas, and difficulty in providing security at evacuation sites. The book gives symptoms, treatment and prevention measures for chilblain, acute mountain sickness (AMS), high-altitude pulmonary edema (HAPE), and other conditions. Special considerations for medical evacuation (MEDEVAC) in mountainous terrain are also discussed. To access a PDF copy of this publication, click here.

The 115th Combat Support Hospital (CSH) and the 485th Preventive Medicine Detachment were deployed to Camp, Dwyer, Afghanistan in support of Operation Enduring Freedom. Their combined End of Tour (EOT) AAR provides observations, insights, lessons, and best practices identified during their deployment. Some of the key topics discussed include; understanding the assigned NATO mission, uncertainty as to when preventive medicine support should be shut down in a closing theater, disposition of excess medical equipment and personnel resiliency in the Emergency Room. Many of the lessons in this AAR have also been identified by Navy personnel in the same theater. The Army Medical Department AMEDD Center for Lessons Learned milBook Forum and LL website would be a valuable additional resources for medical deployers of any service. Key lessons from the 115th CSH are identified below, or you can view all 40 lessons by clicking here.

- Preventive medicine services in a closing theater
- Issues of continuity for leadership
- Lack of soldier clinical skills
- Resiliency training for emergency room personnel

The study focuses on the tourniquets most commonly carried and used by US Military personnel. A total of 824 tourniquets were collected and examined between May 2010 and February 2012. Specific findings include:

- The Combat Action Tourniquet (CAT) was used in 75% of the cases, the Special Operations Forces Tactical Tourniquet (SOFTT) was used in 20% of the cases, and other tourniquets represent 5% of the total.
- Six generations of the CAT have been fielded. Generations 5 & 6 are being used with increased frequency.
- Three generations of the SOFTT have been fielded. Gen 2 is currently the most commonly used.
- Two or more tourniquets were applied in 71% of cases (range = 2-8). On average, 2.55 tourniquets were applied per case.
- Lower extremity tourniquet application was more than twice as common as upper extremity application (2.3:1 ratio).

DMMPO Recommendations:

- Military training centers should utilize data from this presentation to educate deploying medical personnel.
- First Responders should be aware that tourniquet use on the battlefield often exceeds two per casualty.
- Although CAT & SOFTT are the predominant tourniquets used by warfighters, first responders should also be familiar with other tourniquets that might be encountered.

Medical Materiel Quality Control Message

The Defense Medical Materiel Program Office (DMMPO) issued a DOD Medical Materiel Quality Control Message (MMQC-10-1221) dated 18 June 2012, identifying potential counterfeit Combat Application Tourniquets (CAT). Defense Logistics Agency (DLA) has become aware of similar materiel manufactured to closely resemble C-A-T tourniquets. Markings and symbols, including the specific C-A-T National Stock Numbers (NSN) can be similar or identical. There is a concern that these devices have been mixed in with US Forces equipment and first aid kits. The MMQC provides guidance on the discovery, removal, and turn-in of counterfeit tourniquets, and can be read by clicking here.
Regional Command East, Combined Joint Task Force (CJTF) – 1 Surgeon’s section (CJSURG) information paper discusses the experiences and insights from the support of Operation Enduring Freedom (OEF) XII in Afghanistan from May 2011 – April 2012. The report covers some of the major lessons learned by CJTF-1, and recommendations for future units.

Some of the topics discussed within the CJSURG seven subordinate sections with relevance to Navy Medicine deployers in the same/similar roles include:

- Clinical operations (CLINOPS)
  - Personnel and training requirements for Brigade Surgeons, Sexual Assault Forensic Examiner and Nurse Examiner (SANE/SAFE)
  - Electronic medical record documentation for providers not collocated with supervisory health care provider
  - Rabies post-exposure treatment standards of care
- Patient administration (PAD)
  - Patient tracking system for intra-theater patient tracking
  - Pre-deployment training requirements for PAD personnel
- Health sector reconstruction and development (HSRD)
  - Management and assessment of HSRD efforts
- Medical operations (MEDOPS)
  - Medical rules of eligibility and regulation of local national patients
- Medical logistics (MEDLOG)
  - Tables of distribution and allowance for equipment
  - Cold chain management
- Health information systems
  - Medical Command, Control, Communications and Computers (MC4) systems training and equipment requirements
- Medical combined action (MCA)