

Name: Jack Sariego

**INTRODUCTION:**

The U.S. military population differs from the general population in a variety of areas, including cancer risk factors and access to medical care. Both of these factors may manifest as differential rates and stage of cancer presentation between civilian and military populations.

**METHODS:**

This was a retrospective analysis of cancer presentation by stage in military members, military dependents, and the non-military population. Data were gathered using insurance information presented to the American College of Surgeons National Cancer Database (ACS NCDB). Patients with Veterans Administration, Tricare, or other military insurances were grouped as “Military” and all other insurances grouped as “Civilian.” Stage distribution was recorded, as was racial designation.

**RESULTS:**

Between 2000 and 2011, The ACS NCDB recorded 6,603,798 cancer cases of all types. Only 3.1% of all enrolled patients had “military” insurance. Patients with military insurance were older at the time of presentation, presented with later stage disease, and were more likely to be non-Caucasian. These differences were all statistically significant. The racial dichotomy was true for both the early-stage and later-stage cohorts.

**CONCLUSIONS:**

There is a differential cancer presentation rate between patients with civilian insurance and those with military insurances, and this may be extrapolated to the general civilian and military/military dependent population. There is also a racial dichotomy that is evident in all patients but is most marked in the military cohort.

**Learning Objectives**

1. Critically evaluate the differential presentation of cancer patients in civilian and military cohorts
2. Ability to examine the differential influence of race on military and civilian cancer patients
3. Propose possible reasons for the dichotomy in presentation between civilian and military cancer patients

Name: Jeff Harrison

Role: Presenter

Organization: University of North Florida

Name: Bernard James Kerr

Organization: Central Michigan University

Role: Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Research in the health profession in 2013 has suggested that health professionals are expected to be skilled, aware, and knowledgeable of over 500 administrative and executive competencies as identified by the nation's leading professional organizations and societies. However, unlike clinical professionals who must maintain specified competencies in order to maintain state and national licensure and certification standards -- medical administrators have less of a requirement for specific and implicit competency attainment. In a profession where more than 12% of our nation's workforce is currently employed in the health profession, how does this competency attainment take place? After briefly presenting a summary of suggested administrative competencies as offered by the nation's leading professional organizations, this oral session presents information on professional, didactic, personal and service opportunities to acquire and maintain competencies in the nation's fastest growing - and most challenging - profession.

Learning Objectives

1. Describe the opportunities that exist to healthcare professionals in the environment to accomplish continuing health education.
2. Recognize the snapshot in time that an individual currently occupies in his or her current professional development life cycle.
3. Recognize the snapshot in time that an individual currently occupies in his or her current professional development life cycle.
4. Demonstrate how examples of mentoring, personal experience, observation, recognized didactic instruction, graduated/doctoral education, formalized Continuing Health and/or Medical Education (CHE/CME), community volunteerism, and professional organizations support professional development.
5. Identify optimal opportunities for professional development based on an individual's current state of competencies and proficiencies.

List of Participants and Their Roles in the Abstract

Name: Joyce Johnson

Organization: Private Practice

Name: Joseph Acosta

Organization: Philippine Air Force

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

On November 8, 2013, Super typhoon Haiyan hit ground in the Philippines. Estimates are that more than 6,000 people perished, most of these due to a storm surge that reportedly approached 5 meters in some areas. The city of Tacloban was destroyed by the storm surge. Other parts of the country, such as the Camotes Islands, a rural pair of isolated islands about 40 miles from Tacloban, were also hit by the typhoon's wind and rains, but not the storm surge. These remote islands, accessible only by water, had a practice of emergency preparedness drills, and had only one death.

The disaster response to the typhoon was an international effort, including both military and civilian, of several dozen nations and many more NGOs. The United States military transported life-saving food, water and shelter, to many parts of the affected areas.

This presentation will discuss some of the pre-storm preparedness activities in the remote Camotes islands, the impact of the storm, both short-and-long term, and the activities of the U.S. and other militaries in the overall disaster response activities.

Learning Objectives

1. Identify three common stages of community response to Typhoon Haiyan and other disaster settings.
2. Describe the role of the U.S. and other militaries in the Typhoon Haiyan response.
3. Discuss the medical and public health activities, both military and civilian, in each of the stages.

List of Participants and Their Roles in the Abstract

Name: Matthew Berniard

Name: Matt Lawrence

Organization: Naval Medical Center Portsmouth

Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

**Objectives:** Peripheral intravenous (PIV) access is a common procedure in the emergency department (ED). However, conditions such as obesity, hypovolemia, and extremes of age can often make access difficult by the traditional landmark technique. The use of ultrasonography has improved the success of PIV placement in this setting. The Naval Medical Center Portsmouth Emergency Department started an US-Guided Peripheral IV Access program for emergency nurses, U.S. Navy corpsmen, and physicians.

**Methods:** This was a prospective, observational study of emergency providers performing US guided PIV placement. After a training session, all ED nurses, corpsmen, and physicians began utilizing the US for difficult IV access patients. All complications, location of access, and previous experience level were recorded. The choice of a transverse, longitudinal, or a combination approach was also recorded. Descriptive statistics were used to analyze data.

**Results:** We observed no significant differences in ability and efficacy with ultrasound (US)-guided peripheral IV access when comparing success rates between emergency medicine physicians, nurses, and technicians. In the novice user, a short-axis or a novel combination of a short and long-axis method appears to be the most successful. We noted improved success when veins in the upper arm were accessed (basilic, cephalic, or brachial) rather than the antecubital (AC) or forearm in all users regardless of experience level.

**Conclusion:** ED physicians, nurses, and corpsmen can successfully place US-guided peripheral catheters for venous access. Developing a program to train emergency providers in US-guided venous cannulation is viable, easy, and safe.

Learning Objectives

1. Describe how to institute a program for teaching ultrasound-guided peripheral IV access to providers (technicians, nurses, and physicians)
2. Describe how to maintain a program for teaching ultrasound-guided peripheral IV access to providers
3. Describe the best approach to teach the novice user how to obtain peripheral IV access with ultrasound

List of Participants and Their Roles in the Abstract

Name: Ian L Valerio

Organization: Walter Reed National Military Medical Center (WRNMMC)

Role(s): Submitter; Presenter

Name: MARK E FLEMING

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background: Massive soft tissue loss secondary to combat trauma is a difficult clinical challenge. This report outlines combination regenerative modalities-dermal regenerate matrices with spray skin regenerative therapy. Methods: After IRB and FDA approval, a one-time application of Recell autologous cell harvesting/spray skin device(Avita Medical) was authorized. This retrospective case review highlights the aforementioned technology. Results: A 29 year-old male suffered blast-related injuries(2010). His treatment course was complicated by necrotizing fasciitis resulting in skin loss compromising almost 80% TBSA and triple-limb amputations. Recently, this combat casualty underwent ventral hernia repair, with a resulting skin deficit of  $>600\text{cm}^2$ . Dermal regenerate matrices were applied to the defect, establishing a "neodermis". A (6:1)split-thickness skin graft combined with spray skin via an overspray technique was applied to the  $600\text{cm}^2$  abdominal wound and  $140\text{cm}^2$  skin graft donor sites (total surface area treated  $>740\text{cm}^2$ ). Spray skin expansion effectively covered  $>300\text{cm}^2$  per  $2\text{cm}^2$  of donor skin processed. At 4-months follow-up, all recipient sites were completely healed, stable, and without evidence of complications. Conclusion: Combined regenerative therapies in addressing combat traumatic soft tissue losses has been illustrated. Through conversion of full-thickness injuries to partial thickness via application of dermal regenerates, spray skin regenerative technology can be employed for skin coverage. As with prior military conflicts, this case report supports feasible clinical innovations that may be adapted for civilian medical treatments.

Learning Objectives

1. Regenerative Medicine Applications to Combat Casualty Care
2. Civilian and Military Collaborations in Reconstructive Care
3. Advancements and Innovations in Military Care and Translation to the Civilian Sector

List of Participants and Their Roles in the Abstract

Name: Ian L Valerio

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Role(s): Submitter; Presenter

Name: J Marshall Green III

Organization: Walter Reed National Military Medical Center

Role(s): Non-presenting contributor

Name: Jennifer Sabino

Organization: WRNMMC

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background: Vascularized osseous constructs/flaps have a dual-based blood supply (i.e. bipartite perfusion). Our group will outline the application of indocyanine green (ICG) fluorescence angiography to objectively evaluate the bipartite perfusion pattern of vascularized osseous flaps. Methods: A retrospective review was completed on osseous flaps where intraoperative ICG angiography was used to assess their perfusion patterns.

The types of flaps, their success/failure rates, and perfusion-related complications were assessed. Results: Over a 38-month period, 16 osseous free flaps evaluated with intraoperative ICG angiography to assess their corresponding bipartite perfusion patterns. Osseous flaps evaluated included 9 osteocutaneous fibulas, 1 osteocutaneous fibula revision, 2 osseous-only fibulas, 2 scapular/parascapular with scapula bone, and 2 quadricep-based muscle flaps containing a vascularized femoral bone component. All flap reconstructions were successful, with the only perfusion-related complications being 1) a case of delayed partial skin flap loss, and 2) a successfully avoided near miss. The near miss consisted of a vascular pedicle compression secondary to mandibular hardware placement that was easily identified via this tool and replaced to ensure adequate perfusion to the osseous flap. Conclusions: Intraoperative fluorescence angiography is useful in angiosome mapping, aiding in flap design, assessing soft tissue flap perfusion, and evaluating vascular pedicle or perforator flow. Our group has successfully extended the application of this intraoperative tool to critically assess vascularized osseous constructs/flaps for confirmation of bipartite endosteal and periosteal blood flow in an effort to reduce adverse outcomes related to preventable perfusion-related complications.

Learning Objectives

1. Application of assessment tools within operative setting to improve reconstructive outcomes
2. Bipartite blood flow and perfusion pattern in bone flaps proof of concept
3. Prevention of perfusion-related complications and improving clinical or research outcomes

List of Participants and Their Roles in the Abstract

Name: Nigel Bush

Organization: DoD National Ctr for Telehealth & Technology

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background: A “Hope Box” is a therapeutic tool employed by behavioral health clinicians with patients who are having difficulty coping with negative thoughts and stress. We developed a “Virtual” Hope Box (VHB) smartphone app containing a suite of tools collectively providing support, distraction, inspiration, relaxation, and coping, through multimedia.

Methods: We employed a cross-over, counterbalanced design, in which 18 behavioral health patients, in treatment at a large VA medical center for Borderline Personality Disorder, Bi-polar Disorder, Treatment Refractory Depression or PTSD, used both personalized “conventional” hope boxes (CHBs) and VHBs as part of their therapy. Providers helped patients tailor the VHB to each patient’s needs. Patients then used their CHBs and VHBs away from the clinic.

Results: Compared to the CHB, more patients a) used the VHB regularly; b) found the VHB beneficial and helpful; c) said they were likely to use the VHB in the future and; d) would recommend the VHB to peers. Patients cited the helpfulness of VHB with managing distress, negativity, hopelessness, anger, and various other symptoms. Participating behavioral health clinicians were unanimous in their praise for the VHB as an eminently useful therapeutic tool.

Conclusion: While a smartphone app may not be a substitute for in-person care, it does have the advantage of 24-7 accessibility for when that care is not available. We believe that the virtual hope box smartphone app offers clinicians and their patients a valuable tool to supplement face-to-face treatment for stress and negative thinking.

Learning Objectives

1. To recognize the emerging utility of mobile personal technologies as accessory to behavioral health treatment.
2. To understand the process of developing and testing a mobile technology health application.
3. To appreciate the value of clinician involvement in patient use of health-related smartphone app.

List of Participants and Their Roles in the Abstract

Name: David Kauvar

Organization: Dwight D. Eisenhower Army Medical Center

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Counterinsurgency (COIN) operations are likely to remain a part of the expeditionary activities of US forces for the foreseeable future. The success of such operations is predicated on a deployed intervening force's ability to promote the legitimacy of the indigenous government as a source of stability and security for the populace. The experience presented here suggests that relatively underutilized forward-deployed military medical assets can successfully engage in indigenous healthcare capacity building, enhancing local health security and legitimacy and contributing in novel ways to the broader COIN mission.

In this presentation, an outline of the primary concepts and theories of counterinsurgency and the role of forward-deployed medical assets will be reviewed. The rationale for healthcare capacity building as a part of COIN will be presented and the successes and failures of previous attempts (such as Medical Civic Action Programs) will be discussed.

The capacity-building experiences of a Joint Special Operations Task Force Forward Surgical Element in Tarin Kowt, Afghanistan will be presented. Three major areas will be emphasized; the training of indigenous healthcare providers, assistance of indigenous health facilities with capability-expansion, and the medical education of indigenous military forces.

The real-world results of these engagements are presented, and critical enablers and roadblocks are identified and discussed. Recommendations for the continuation of successful efforts are made as is a call for the creation of doctrine to guide future efforts.

Learning Objectives

1. Describe the primary concepts and operational issues in expeditionary counterinsurgency operations.
2. Understand the role of operational medical support of expeditionary counterinsurgency operations.
3. Understand the potential for significant medical operational contributions to the broader counterinsurgency fight.

List of Participants and Their Roles in the Abstract

Name: Karen Lawrence

Organization: Washington University

Role(s): Submitter; Presenter

Name: Monica Matthieu

Organization: Department of Veterans Affairs

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Traumatic Brain Injury (TBI) has become known as the signature wound of the OIF/OEF conflicts. TBI patients report significant post-injury decreases in psychosocial factors, e.g., perceived health and quality of life (Heltemes et al., 2012). Civic service has been shown to positively impact psychosocial factors in civilian and elder populations (Yamaguchi et al., 2008; Morrow-Howell et al., 2003). Mental health and psychosocial impacts of civic service on returning veterans have not been extensively studied and the differential impact on veterans with and without TBI is unknown.

The Mission Continues, a national non-profit organization, offers a 6-month volunteer opportunity for post-9/11 veterans at community-based organizations across the United States. The purpose of this study is to describe the mental health and psychosocial outcomes from an OEF/OIF veteran cohort who completed the civic service program.

Computations from the pre-/post- internet-based survey design include cross tabulations and bivariate analyses. Fellows (n= 404) are typically ages 31-35 (41%) with over half being male (68%) and 32%, female.

Approximately half of Fellows are Caucasian with African Americans making up the majority (26%) of minority populations, and 22% of Fellows reporting being of Hispanic/Latino ethnic background. Preliminary results indicate that 23% of fellows reported a TBI diagnosis. Statistically significant findings include fellows with TBI reporting lower levels of physical and mental functioning and perceived self-efficacy, and more severe PTSD and depressive symptoms than counterparts. However, veterans with and without TBI showed similar high levels of perceived social support and resources.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Anthony H Dekker  
Organization: DoD  
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Name: Chideha Ohuoha  
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Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Substance use disorders are common in the Active Duty Service Member (ADSM) population. Other Co-Occurring disorders like Post Traumatic Stress Disorder (PTSD), Traumatic Brain Injury (TBI) and psychiatric diagnoses complicate the evaluation and treatment of substance use disorders. Evaluation and treatment of ADSM with SUD has challenged the military with an increasing frequency over the past ten years. Civilian programs often have low yield in regard to sustained sobriety. Interventions using military facilities with comprehensive services for co-occurring disorders in a vertical fashion have improved outcomes. 300 consecutive ADSM were admitted for SUD. 82% had co-occurring disorders of PTSD, TBI or chronic pain syndromes. All received comprehensive evaluations for addiction, psychiatric care and co-occurring disorders. Multidisciplinary care included Medication Assisted Therapy (MAT), Integrative Medicine services (yoga, acupuncture, manipulation, meditation, etc). The program utilizes Provocative Intervention which challenges the patient in the group milieu with motivational interviewing techniques. Over the course of 21 months of monitoring 12% experienced a relapse (>5 drinks/ male or >4 drinks female; or any illegal substance use with observed urines for ETG and UDS) over the 21 month evaluation period. 7 patients were referred to psychiatric inpatient care for psychiatric crisis. 7 members chose to leave the program prior to completion. 41 had left the military during this study period. The discussion will review the evaluation and intervention process.

Description of distinguishing factors regarding rank and branch will be provided. An all military milieu with provocative intervention has a positive impact on the long term effect of treatment in regard to sustained sobriety.

Learning Objectives

1. understand the relationship of PTSD, TBI and psychiatric diagnoses and substance use disorders
2. review the diagnostic assessment for comprehensive substance use treatment in ADSM
3. identify the modalities of treatment that correlate with improved prognosis in substance use treatment of ADSMs

List of Participants and Their Roles in the Abstract

Name: Rigo Hoencamp  
Organization: Leiden University Medical Centre  
Role(s): Submitter; Presenter

Name: Floris Idenburg  
Organization: Haaglanden Medical Centre, dept of Surgery  
Role(s): Non-presenting contributor

Name: Jaap Hamming  
Organization: LUMC  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Background: To improve care for battle casualties, we analyzed the surgical workload during the Dutch deployment to Uruzgan, Afghanistan. This surgical workload was compared with the surgical residency training programs in the Netherlands. Methods: Patient data from the trauma registry (2006-2010) at the Dutch Role 2 medical treatment facility (MTF) were analyzed. The case logs of chief residents from the general surgery training program in the Netherlands were used as comparison. The surgeons and anesthesiologists were asked about their medical preparedness, deployment experiences, and the impact of their deployment after their return. Results: The trauma registry query resulted in 2,736 casualties, of which 60% (1,635/2,736) were classified as disease non-battle casualties and 40% (1,101/2,736) as battle casualties. During the study period 1,427 casualties (336 pediatric cases), requiring 2,319 surgical procedures. Residents had limited exposure to injuries requiring a thoracotomy, craniotomy, nephrectomy, IVC repair and to genital trauma. Impact on mental health and social support network was reported as negative by 11/40 surgeons and anesthesiologists. Conclusions: The injuries treated at the Dutch Role 2 MTF were often severe and highly demanding. The current civilian resident training does not anticipate the minimum required competencies of a fully trained military surgeon. The recognition of military surgery as a subspecialty within surgery in the Netherlands, should be considered. Team work and crew resource management should also be part of the training matrix. The introduction of a North Atlantic Treaty Organization Military (and Disaster) Surgery standard may contribute to achieving this aim.

Learning Objectives

1. The learner will be able to explain the challenges in training of military specialists (in a Dutch perspective)
2. The learner will be able to discuss the workload at a medical treatment facility in Afghanistan
3. The learner will be able to list the core competences of a military surgeon

*Accelerated Resolution Therapy (ART) for Treatment of Pain Secondary to Combat-Related Post-Traumatic Stress Disorder (PTSD)*

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List of Participants and Their Roles in the Abstract

Name: Kevin Edward Kip	Role(s): Non-presenting contributor
Organization: University of South Florida	Name: Alisha Abhayakumar
Role(s): Submitter; Presenter	Organization: Cary Academy
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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

**Background:** As many as 70% of veterans with chronic pain treated within the U.S. Veterans Administration system may have post-traumatic stress disorder (PTSD), and up to 80% of those with PTSD may have pain. We describe pain experienced by U.S. service members and veterans with symptoms of PTSD, and report on the effects of Accelerated Resolution Therapy (ART); an emerging, brief exposure-based therapy, on pain reduction secondary to treatment of PTSD.

**Methods:** A randomized controlled trial of ART versus an Attention Control (AC) regimen was conducted among 45 U.S. service members/veterans with symptoms of combat-related PTSD and pain secondary to PTSD. Participants received a mean of 3.7 sessions of ART.

**Results:** Mean age was 41.0 years and 20% were female. Most veterans (93%) reported pain. The majority (78%) used descriptive terms indicative of neuropathic pain, with 29% reporting symptoms of a concussion or feeling dazed. Mean pre/post change on the Pain Outcomes Questionnaire (POQ) was  $-16.9 \pm 16.6$  in the ART group vs.  $-0.7 \pm 14.2$  in the AC group ( $p=0.0006$ ). Among POQ subscales, treatment effects with ART were reported for pain intensity (effect size = 1.81,  $p=0.006$ ), impairment in mobility (effect size = 0.69,  $p=0.01$ ), and negative affect (effect size = 1.01,  $p=0.001$ ). The largest reduction in pain after treatment with ART was among participants with a history of head trauma.

**Clinical Significance:** Veterans with combat-related PTSD have a high prevalence of pain, including neuropathic pain. Brief treatment of combat-related PTSD among veterans by use of ART appears to significantly reduce concomitant pain.

Learning Objectives

1. Understand the theoretical basis and basic components of the Accelerated Resolution Therapy (ART) protocol used in the treatment of post-traumatic stress disorder (PTSD).
2. Recognize the magnitude and types of pain prevalent in service members and veterans with symptoms of combat-related PTSD.
3. Identify the clinical rationale for use of Accelerated Resolution Therapy (ART) in the treatment of chronic pain secondary to symptoms of combat-related PTSD.

List of Participants and Their Roles in the Abstract

Name: John Lichtenberger

Organization: Uniformed Services University

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Warfare in the modern era is a complex and evolving entity, requiring a paradigm shift on many levels including medical imaging. The changing landscape of war is a fundamental challenge to the US military, and nowhere is this evolution more evident than in the delivery of medical care to the ill and injured in the combat environment. Devastating injuries from modern weaponry and endemic infectious diseases from remote environments meet rapidly developing diagnostic, surgical and evacuation capabilities. Radiologists serving in the US military bring imaging technology and expertise to the battlefield, where they encounter a range of pathology that shares many similarities of the civilian experience. It is the divergence of this pathology from conventional or typical practice that warrants special focus. This presentation will highlight these divergent and atypical aspects of thoracic imaging encountered by the deployed military radiologist, centered on three main topics: trauma, infectious disease, and post-mortem imaging. A brief overview of medical and radiologic capabilities in the deployed military setting will provide perspective to the cases presented. Blast injury, atypical infections, and unique aspects of imaging in the deployed environment will be highlights of this presentation.

Learning Objectives

1. Describe the pathogenesis of blast lung injury and its imaging appearance
2. Identify key infectious diseases more common in the current US deployed environment than in the continental US
3. Elaborate on atypical aspects of medical imaging in the deployed medical setting

List of Participants and Their Roles in the Abstract

Name: Doudou FALL

Organization: Military Hospital of Ouakam

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

February 1, 2011, Corporal DIOUF, 37 years old, passenger of a non-armored VLRA vehicle with three comrades executing a routine mission, passed through a landmine in the anti-armored vehicle. The incident occurred in southern Senegal in the context of fighting between Senegalese Armed Forces and armed groups. Admitted to the advanced surgical unit 30 hours after being injured, he suffered following injuries: right foot: subtalar dislocation, left foot: calcaneal open fracture type Gustillo IIIB with the following treatment: debridement, antibiotics, dislocation reduction, blood transfusion, painkillers, tetanus immunization.

His comrades presented similar clinical injuries. Corporal DIOUF' post-operative outcomes have been simple concerning the right foot. However, several complications occurred regarding the left foot. Infection developed in bone and tissular necrosis. As a result, five surgical interventions consisted with debridement and antibiotic treatment performed unsuccessfully. Twenty seven months after the incident, the AOFAS (American Orthopedic Foot and Ankle Society) score was 50. Persistent, painful infection associated to the long time hospitalization took significant psycho-social effects on him. Psychological support program has been implemented to meet his agreement about a leg amputation surgery. Currently, twelve months after the amputation, Corporal DIOUF is wearing prosthesis and he feels better life. Performing amputation at early stage should be discussed in circumstances of severe injuries by landmine, with considerable bone and tissular damage. That treatment could avoid lengthy hospitalization and chronic infection impacting psycho-socially in a war wounded's daily life.

Learning Objectives

1. Describe the Senegalese Armed Forces MEDEVAC system
2. Indicate the role of The Military Hospital of Ouakam
3. Interpret the importance of Psychological support program in a Military

List of Participants and Their Roles in the Abstract

Name: MARK E FLEMING

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Role(s): Submitter; Presenter

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Organization: Walter Reed National Military Medical Center (WRNMMC)

Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Introduction: Combat wounds are characterized by extensive zones of injury, massive soft tissue loss, osseous destruction and gross contamination. Following the resuscitation, decontamination and stabilization phase, the acute and sub-acute periods involve resource intensive primary reconstruction efforts to stabilize the wounds and injuries. However, initial reconstructive efforts may only be a temporizing measure as final reconstruction may not be indicated during these periods of intense inflammatory and catabolic states. Long term a number of secondary reconstruction measures are indicated and necessary to aid in the wounded warriors recovery, return to duty and/or reintegration. Through a case series, we will highlight the use of current and future regenerative medicine modalities currently being employed for primary and secondary reconstruction

Methods: A review of combat casualty care cases utilizing various regenerative medicine modalities that have been employed at our institution for primary and secondary reconstruction measures.

Results: The use of spray skin technology, bio-artificial dermal substitutes, extracellular matrices, nerve conduits, mesenchymal and adipose derived stem cell therapy and wound modifying measures have all been employed in the primary and secondary reconstruction of combat wounded patients with excellent outcomes.

Conclusions: During the past decade reconstructive surgeons have adapted a variety of innovative regenerative medicine therapies to aid in the primary and secondary reconstruction of our wounded warriors. Despite the extent of their initial catastrophic injuries, traditional as well as novel primary and secondary reconstructive measures employing regenerative medicine therapies have played a vital role in their continued recovery, rehabilitation and reintegration.

Learning Objectives

1. Recognize the barriers to recovery and reintegration.
2. Recognize the current and future regenerative medicine modalities available for primary and secondary reconstruction of combat casualty wounds.
3. Compare and contrast primary and secondary reconstruction.

List of Participants and Their Roles in the Abstract

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Role(s): Submitter; Presenter

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Organization: WALTER REED NATIONAL MILITARY MEDICAL CENTER  
DEPARTMENT OF ORTHOPEDICS

Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Introduction: Battlefield injury survival rates have continued to improve from those of all prior wars, directly contributing to increased volumes of traumatic wound reconstructions. Intraoperative fluorescent angiography is an objective tool for war-related tissue injury assessment that can predict poorly perfused tissues, thus providing early identification and reduction of perfusion-related complications.

Methods: A retrospective review of traumatic and reconstructive cases employing intraoperative fluorescent angiography was performed. Data analyzed included indication for use, procedure success/failure rates, and perfusion-related complications.

Results: A total of 186 cases were reviewed, consisting of 123 extremity flaps, 41 extremity combined bony and soft tissue injury and/or amputation revision cases, 13 craniofacial flaps, and 9 abdomen/GI cases utilizing intraoperative fluorescent angiography to assess tissue viability over the 3-year period. Percentage of cases where intraoperative modifications were made based on intraoperative ICGLA findings consisted of 15.7% of extremity pedicle flaps, 12.5% of extremity free flaps, 15.4% of craniofacial free flaps, and 33% of GI/abdominal cases. These modifications directly resulted in detecting and preventing a significant portion of perfusion-related issues intraoperatively.

Conclusions: Intraoperative fluorescent angiography has been an objective, useful adjunctive tool for assessing military trauma and related injuries. Our expanded indications for its application include: 1) guidance of debridement in heavily contaminated wounds, 2) assessment of avulsive tissue injuries, 3) detection of vascular and/or microvascular compromise in soft tissue and osseous flap reconstructions, 4) in reducing and preventing perfusion-related complications in trauma, amputation closures, and reconstruction procedures, and 5) post-operative wound and reconstruction assessment if delayed perfusion-related issues arise.

Learning Objectives

1. Improving outcomes in trauma and reconstructive surgery
2. Medical and surgical decision making to improve outcomes within intraoperative settings
3. Expansion of indications for assessing tissue perfusion through use of intraoperative fluorescent angiography

List of Participants and Their Roles in the Abstract

Name: Robert Eugene Van Meir

Organization: Northwest Detention Center

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

ABSTRACT

What are ethics, why do ethics exist, and why can ethical decision making be so difficult? These questions are part of this ethics presentation. The objectives are to help mental health professionals as well as other health professionals understand how their own key values can influence the process. Several of the major components that make up the process of making ethical decisions will be explored. Participants will be presented a step by step ethical decision making model to aid in explaining the where, when, why, and how they arrived at the resolution of different ethical issues. The audience will be presented with a case example that will highlight the model.

Learning Objectives

1. Identify the impact values have on ethical decision making.
2. Develop a standardized systematic model of ethical decision making.
3. Recognize, interpret, and explain the decisions that a professional makes.

List of Participants and Their Roles in the Abstract

Name: Kevin Edward Kip

Organization: University of South Florida

Role(s): Submitter; Presenter

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background. Current recommended first-line treatments for post-traumatic stress disorder (PTSD) were validated in civilian populations, and are relatively lengthy.

Methods. We pooled patient data from two studies of Accelerated Resolution Therapy (ART), an emerging, brief exposure-based therapy. Both studies were completed with nearly identical civilian and military treatment and assessment protocols. Treatment response for symptoms of PTSD was compared by civilian versus military status, and stratified by gender and participants with sexual trauma.

Results. Mean age was 40.1 vs. 42.0 years in civilians ( $n=70$ ) vs. military participants ( $n=55$ ), respectively. Females represented 85.7% of the civilian study vs. 16.4% in the military study ( $p<0.0001$ ). Compared to civilians, military participants had more head trauma (36.4% vs. 8.6%,  $p=0.0003$ ), poorer sleep quality ( $p<0.0001$ ), and higher Arousal subscale scores on the PCL checklist ( $p=0.007$ ), and among females, more sexual trauma (77.8% vs. 26.7%,  $p<0.0001$ ) and higher symptom severity. Mean PCL scores before/after treatment with ART were 53.3/30.2 among civilians compared to 57.0/40.5 among military participants ( $p=0.25$ ). Among females with sexual trauma, mean reductions on the PCL were substantial and similar between civilian ( $-22.5 \pm 16.7$ ) and military ( $-21.2 \pm 12.7$ ) participants ( $p=0.87$ ).

Conclusions. In an average of less than 4 treatment sessions, treatment with ART appears to result in substantial, comparable reductions in symptoms of PTSD in civilian and military patients. This includes treatment for civilian and military sexual trauma.

Learning Objectives

1. Understand the theoretical basis and basic components of the Accelerated Resolution Therapy (ART) protocol used in the treatment of post-traumatic stress disorder (PTSD).
2. Recognize differences in types of traumatic exposures and clinical presentation between civilian and military personnel, and by gender.
3. Identify the clinical rationale for use of Accelerated Resolution Therapy (ART) in the treatment symptoms of PTSD in civilian and military adults, including treatment of sexual trauma.

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Name: Steve Witt

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List of Participants and Their Roles in the Abstract

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Role(s): Submitter; Presenter

Name: Barbara Quinn  
Organization: Sutter Medical Center, Sacramento, CA  
Role(s): Presenter

Name: Dian Baker  
Organization: School of Nursing CSU Sacramento  
Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Non-ventilator associated hospital-acquired pneumonia (NV-HAP) is an understudied disease, with potential for improved health outcomes and quality of life, shortened hospital length of stay, and financial savings. A descriptive, quasi-experimental study held at Sutter Health, Kaiser Permanente, and the Department of Veterans Affairs determined the incidence of NV-HAP and associated risk factors for its development, and the effectiveness of enhanced basic oral nursing care versus usual care to prevent NV-HAP. Logistic regression was performed to assess the likelihood that Veteran and civilian patients would develop NV-HAP after admission. The following factors contributed to the development of NV-HAP: elderly (mean age 72), low body mass index, albumin

Learning Objectives

1. Discuss the significance of Non-Ventilator Hospital Acquired Pneumonia (NV-HAP).
2. List 3 modifiable risk factors for NV-HAP
3. Explain the importance of medical and nursing interventions in prevention of NV-HAP

List of Participants and Their Roles in the Abstract

Name: William Joel Meggs

Organization: Brody School of Medicine at East Carolina University

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Objective: Participants will know the clinical symptoms, of a sample of 1991 Gulf War Veterans who suffer from Gulf War Illness (GWI); participants will know case definitions of GWI. Participants will know efficacy of medications used to treat GWI.

Methods: A case definition of GWI was used to screen veterans of the 1991 Gulf War. After informed consent, veterans meeting inclusion criteria were scheduled for a clinic visit. Standardized history and physical examinations were performed, medication use was recorded, an exposure history was taken, and symptoms were scored using a 10 cm visual analogue scale. Means  $\pm$  standard errors of visual analogue scores were calculated and compared according to medication use. Statistical analysis compared groups using t-tests.

Results: 42 Gulf War veterans were enrolled. Symptoms were sleep disturbance, chronic fatigue, arthralgias, myalgias, irritability, difficulty with memory, headaches, difficulty concentration, inappropriate anger, and nasal congestion. Exposure histories included pyridostigmine bromide, vaccines, SCUD missile attacks, chemical alarms sounding, oil well fires, and pesticide sprays.

100% had rhinitis on examination was rhinitis. Treatments included psychotropic, analgesic, and anti-inflammatory medications. Number of medications ranged from 0 to 11. Visual analogue scores were not significantly different for those taking more than 2 medications relative to 2 or less except for greater fatigue (86.2 $\pm$ 36.6 cm versus 58.2 $\pm$ 33.8 cm, p=0.003) and difficulty with sleep (86.9 $\pm$ 21.8 versus 66.7 $\pm$ 29.7, p=0.02) in those taking 2 or more medications. Conclusion: Chronically ill Gulf War veterans taking > 2 medications were not improved. More effective treatments for GWI are needed.

Learning Objectives

1. Participants will know the signs and symptoms of Gulf War Illness
2. Participants will know abnormal physical examination findings in Gulf War Illness
3. Participants will know what medications are currently used to treat Gulf War Illness and their efficacy.

List of Participants and Their Roles in the Abstract

Name: Kerry Latham

Organization: WRNMMC

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background: Creating an aesthetically pleasing subtotal nasal reconstruction with a functional airway is a challenging clinical problem. While various options exist, staged reconstructions via autologous nasal reconstruction techniques are preferred as they typically portend superior results. Our collaborative military and civilian surgical team will discuss cross-bridging and team building between governmental and civilian medical providers to optimize outcomes in complex facial reconstruction.

Method: A 22-year-old patient injured in Afghanistan with a subtotal nasal defect presented to the Walter Reed National Military Center for nasal reconstruction. After evaluation by our multi-disciplinary team, a series of surgical stages for restorative nasal reconstruction were outlined. Surgical stages included the following techniques: septal-pivotal flap, radial forearm flap, forehead flap for nasal framework coverage, and division/inset of the forehead flap. Secondary contouring procedures focused on debulking/shaping the flap with concern of nasal aesthetic units was then performed. Medical modeling and artistic principles were also utilized.

Results: Over the 2-year course of military team care, the patient underwent 10 procedures. Through the sequence of procedures completed, the patient has been able to achieve a functional and aesthetically acceptable nose. Pictures and video will illustrate the steps of subtotal nasal reconstruction in order to optimize and achieve the best outcome possible.

Conclusion: Traumatic nasal injuries resulting in subtotal nasal loss are difficult, challenging reconstructions. Casualties and/or patients suffering from such severe nasal deformities and disfigurements can achieve a functional, attractive nasal reconstruction through staged team care described herein.

Learning Objectives

List of Participants and Their Roles in the Abstract

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& Integration  
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Role(s): Non-presenting contributor

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Name: Francis O'Connor  
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Role(s): Non-presenting contributor

Name: Peter Lisman  
Organization: Towson University  
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Name: Anthony Beutler  
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Role(s): Non-presenting contributor

Name: Josh Kazman  
Organization: Uniformed Services University of the  
Health Sciences

Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Musculoskeletal pain (MSKP) is common among returning warfighters. Various risk factors (RFs) for MSKP include injury, deployments, and demands such as wearing body armor. New data show modifiable RFs such as compromised movement patterns and inadequate core stability (CS) may also be RFs for MSKP. Identification of modifiable RFs may translate into training/deployment programs to minimize MSKP.

Purpose: to assess the relationship between movement patterns, CS, and post-deployment MSKP in returning US Marines.

Methods: Male Marines from Camp Lejeune, NC were consented and underwent functional movement and CS testing using the Functional Movement Screen (FMS) within one month post-deployment (N=398). 7 FMS movements were graded on a 0-3 scale (0=pain to 3=optimal movement, no pain), yielding a maximal score of 21 points (mean  $\pm$  SD). Armor use, injury patterns, and demographics were analyzed.

Results: Stepwise regression analyses showed 5 variables explained up to 31% of the variance in MSKP. Body armor use ( $p < 0.001$ , standardized beta ( $\beta$ ) =0.33), number of deployments ( $p=0.47$ ,  $\beta=0.16$ ), previous back injury ( $p < 0.001$ ,  $\beta=0.24$ ), previous knee injury ( $p < 0.001$ ,  $\beta=0.21$ ), and previous ankle/foot injury ( $p=0.04$ ,  $\beta=0.13$ ) were positively associated, while FMS scores ( $p=0.002$ ,  $\beta=-0.25$ ) were negatively associated with MSKP. Age, height, weight, and body mass index were not related to MSKP.

Conclusions: FMS scores in returning US Marines are similar to athletes, but vary widely. Low FMS performers and those reporting greater weekly body armor use had the highest post-deployment MSKP. These results may be informative for “pre-habilitation” during pre-deployment training to decrease post-deployment pain.

Funding source: Office of Naval Research Grant.

Learning Objectives

1. Describe factors associated with deployment-related musculoskeletal pain
2. Identify potentially modifiable risk factors for deployment-related musculoskeletal pain
3. Interpret data analysis results of the relationship between functional movement screen and pain in returning troops

List of Participants and Their Roles in the Abstract

Name: Alex Bennett  
Organization: National Development and Research Institutes  
Role(s): Presenter

Name: Enrique Rodriguez Pouget  
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Role(s): Non-presenting contributor

Name: Andrew Golub  
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Role(s): Submitter; Presenter

Name: Peter Britton  
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Name: Luther Elliott  
Organization: NDRI  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Name: Andrew Rosenblum  
Organization: NDRI  
Role(s): Non-presenting contributor

This presentation explores prescription opioid (PO) overdose and overdose risk among recent veterans returning from Iraq and Afghanistan with a focus on misuse reduction, overdose prevention and response, and targeted outreach to the veteran population. PO overdose is a major public health concern today within the general population and among veterans. Veterans' experiences are uniquely affected by combat exposure, military values, and reintegration challenges as well as persistent pain management and mental health concerns. Thus, prevention programs need to be tailored to the particulars of their circumstances.

This presentation describes the typical risk and protective factors and common overdose risk variations experienced by recent veterans based on 50 in-depth interviews with veterans who experienced a non-fatal overdose. The presentation also introduces a new scale, the Overdose Risk Behavior Scale (ORBS), adapted from existing literature and based on our interviews in order to measure current overdose risk among PO-using veterans. The ORBS is ultimately intended for field use to identify veterans developing an overdose risk, possibly months in advance. Starting soon, the study will follow a panel of 250 PO-using veterans and contemporaneously track changes in ORBS scores. Qualitative interviews with an embedded subsample of 32 members of the panel will be used to learn more about the context of change in overdose risk.

The conclusion presents implications for outreach programs from existing literature and our research to date and discusses the potential future implications of findings from the upcoming longitudinal research.

Learning Objectives

1. Describe the typical experience and common variations in the experience of overdose among recent veterans from precursors through overdose and subsequent treatment.
2. List those overdose risk factors that are most common among recent veterans.
3. Explain the types of outreach program features and implementation that should be most effective in addressing opioid misuse, preventing overdose, and reversing overdoses among recent veterans.

List of Participants and Their Roles in the Abstract

Name: Saunya N Bright

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Full Range Leadership Model (FRLM) combined with Air Force Smart Operations for the 21st Century (AFSO21) principles were used to motivate, improve and expand an Air Force Nutritional Medicine Food Service Operation. The FRLM was used to motivate staff to make improvements to processes and expand services that had not been updated over an extended period of time. Although staff members had varying backgrounds, levels of experience and sources of motivation, leadership was able to facilitate a change by taking note of individual influencers, defined needs and safety considerations. A predominately transformational style augmented with transactional leadership elements helped the organization grow into a collaborative team which facilitated changes to increase efficiency. A shared vision was developed that encouraged individual buy-in and ownership into the success of the food service operation. AFSO21 process improvement "6S" principles of "Sort, Straighten, Shine, Safety, Standardize and Sustain" were used to transform the food service operation based on ideas of the staff. The use of combined FRLM and AFSO21 principles created the proper environment for standard work practices, visual controls, and the elimination of inefficiencies. Additionally, a higher value was placed on safety while staff and customer satisfaction improved. The facility updates resulted in increased productivity. Although staff decreased 30%, there were no gaps in services due to improved organization.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Alicia Gill Rossiter

Organization: University of South Florida

Role(s): Submitter; Presenter

Name: Rasheeta Chandler

Organization: University of South Florida

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Purpose: Test an instrument aimed at identifying military specific contributors to intimate relationship deterioration/divorce in women in the military. Background: The Pentagon expressed concerns regarding the increasing divorce rate of women in the military—7.8% as compared to 3% of men. There is speculation about contributing factors to divorce in this population, hence the need for a measurement tool. Methods: The Chandler-Rossiter (C & R) survey was developed in an attempt to explain increased divorce rates. The survey was formatted electronically and a link was provided to eligible women. Results: A feasibility study of the C&R divorce survey was piloted with a convenience sample of women veterans (N=27), of which 25% (n=6) were divorced while in the military. Deployment, PTSD, sexual trauma, spousal infidelity, anxiety or stress assimilating back into the marriage/family was reported as the leading contributors to divorce. Divorced Women were more likely to report experiencing military sexual assault or attempted sexual assault in comparison to those who were not divorced who primarily reported sexual harassment. Analysis included calculating frequencies (quantitative) & determining major themes (qualitative). Conclusions & Implications: Service related experiences of women in this study supports the need for continued and improved sexual harassment/sexual assault prevention training in the armed forces and implementation of a universal debriefing program tailored for all returning women veterans. Additional studies conducted using this survey can help determine predictors of divorce for diverse populations of women and be adapted for data collection with men. Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Sean Robert Maloney

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Role(s): Submitter; Presenter

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Role(s): Non-presenting contributor

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Organization: U.S. Navy Reserve

Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Recent studies have proposed an important role for vitamin D in reducing the risk of infection by assisting in the suppression of viruses and by controlling the inflammatory response. A low vitamin D state may have a detrimental effect on the immune system's ability to activate auto reactive T cells and may increase the inflammatory reaction to Epstein Barr virus. The aim of this chart review was to see if serum 25 OH vitamin D<sub>3</sub> levels in service members with acute pharyngitis were lower in those who had positive rather than negative monospot tests.

A retrospective chart review was conducted on the medical records of service members who presented to sick call at Camp Lejeune, NC with acute pharyngitis from October 8, 2010 until June 30, 2011. Mean serum 25 OH vitamin D<sub>3</sub> levels were compared between those with positive and negative monospot test results. Of 25 records reviewed, nine (36%) service members had positive results, and they were found to have lower vitamin D levels ( $M = 21.59$ , 95% CI [15.00, 28.18]) than those with negative test results ( $M=29.78$ , 95% CI [ 23.42, 36.14]),  $t(23)= 1.81$ ,  $p = .042$ . Only 1 of the 9 with positive test results had normal serum 25 OH vitamin D<sub>3</sub> levels (30 ng/ml or greater) compared with 9 of the 16 with negative test results. Optimal vitamin D stores may play a significant role in reducing the risk of developing acute mononucleosis but larger, prospective studies will be needed to verify these findings.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Lauren Oliveira

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Organization: Naval Medical Center Portsmouth

Role(s): Non-presenting contributor

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Role(s):

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Objectives:

The operational environment is void of advanced diagnostic imaging and testing. However, military emergency physicians are called on to treat critically ill trauma patients and provide medical care for team members. Point-of-care ultrasound can provide immediate information to make time critical decisions. Furthermore, proficiency in ultrasound can aid in evaluating common complaints thus avoiding an evacuation during dangerous conditions. We sought to perform the first tri-service survey to assess the current needs of ultrasound training in the austere environment.

Methods:

Active duty emergency medicine physicians in the US Navy, Air Force, and Army were surveyed using a validated, electronic program. We queried what percentage used ultrasound during their last deployment, the mean level of perceived proficiency in each ultrasound application, and the mean rated utility of each application for future deployments.

Results:

165 emergency medicine physicians responded. The applications most frequently used were the FAST (Focused Assessment with Sonography for Trauma) exam, echocardiography, biliary, and soft tissue. The applications rated as most useful for a future deployment were the FAST exam, thoracic, echocardiography, IVC (inferior vena cava), soft tissue, central vascular access, ocular, and biliary. For these applications, the average proficiency was high for all except IVC and ocular.

Conclusion:

Pre-deployment training should continue to emphasize the FAST exam, central vascular access, soft tissue, thoracic, biliary, and echocardiography. Training should place an increased emphasis on IVC and ocular, as these applications were rated as highly useful with lower levels of average proficiency among users.

Learning Objectives

1. What percentage of Navy, Air Force, and Army emergency medicine physicians used point-of-care ultrasound during their last deployment
2. The level of proficiency among Navy, Air Force, and Army physicians in each point-of-care ultrasound application.
3. The rated utility of each point-of-care ultrasound application for future deployments among Navy, Air Force, and Army emergency medicine physicians.

List of Participants and Their Roles in the Abstract

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Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The main principle of Hyperbaric oxygen therapy(HBOT) is based on giving pure oxygen at the level higher than atmospheric. Increasing number of indications are approved of HBOT as defined by clinical experiences. HBOT therapy is getting familiar in multistep therapies in the multiclinic approaches like thermal burns, crush injuries, skin grafts and flaps and other acute traumatic ischemias. In the acute traumatic conditions as like crush injuries, HBOT improves tissue oxygenation and limits the complications due to poor circulation and tissue hypoxia, initiated new capillary formation also, reduces the infection rate. HBOT also prevents further tissue damage. By preparing an rich blood feeding host for skin grafting and fleping, decreasing scar formation and acceralating wound clouse, HBOT also contributes to the reconstruction phases and steps in the musculoskeletal trauma care. We discussed treatment steps both in acute and reconstruction periods and the efficacy of HBOT on a case of A 22-year-old naval soldier, left hand dominant , admitted from the emergency department with the complaint of crush injury to his third and fourth fingers between crane pulley and steel rope in the marine trailer. He had distal fingertip amputation with third distal interphalangeal joint dislocation, severe pulpa and sterile/germinal matrix injuries concomitant fourth distal phalanx fracture. Wound was contaminated with sea water, mud and rust particules. HBOT is performed in monospace steel chamber with the duration of 90 minutes at 2.4 ATA.

Learning Objectives

1. we discuss hyperbaric oxygen therapy steps in acute traumas
2. we explained the indications and the role of HBOT in acute crush injury of fingertips
3. we reported the effectiveness of the HBOT in fingertip crush injuries

List of Participants and Their Roles in the Abstract

Name: Rita D'Aoust

Organization: University of South Florida College of Nursing

Role(s): Presenter

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Role(s): Submitter; Presenter

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Organization: University of South Florida

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Name: Lawrence Braue

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Name: Dianne Morrison-Beedy

Organization: University of South Florida College of Nursing

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

There is a significant nationwide nursing shortage. The Registered Nurse plays an integral role in healthcare delivery and is associated with improved patient outcomes and satisfaction making them fiscally advantageous to hospitals. There is a growing population of veterans facing employment challenges following discharge from active duty. In 2011, roughly 20,000 medics and corpsman were unemployed. Individuals with military medical training receive high quality, nationally accredited training at military service training schools, on the job training at military medical centers, as well as extensive medical field training and experience in support of conflicts, humanitarian aid missions, and general primary care. In focus groups with military veterans conducted by the project staff, participants identified a number of issues that were important to them regarding recruitment of military veterans into nursing programs. The issues raised included items seen as barriers to enrollment in and successful progression through graduation from nursing school. We created V-CARE: Creating Access to Registered Nurse Education for Veterans to assist these talented service members to utilize their education and training without having to start their nursing education at the beginning. Academic credit is awarded for appropriate military education and training allowing applicants to enter the nursing program as transfer students. Clinical laboratory and simulation sessions have been modified to build on service members' education and experience and a transitional course has been created to support these learners in the transition from a medic/corpsman paradigm to that of the registered nurse. Additional supports have been built into the program.

Learning Objectives

1. Discuss the purpose behind the need for expanding the pool of registered nurses to fill the nationwide nursing shortage.
2. Discuss the V-CARE program and its benefits to medics and corpsmen
3. Describe the V-CARE program and the impact on transitioning medics and corpsmen into the BSN role

List of Participants and Their Roles in the Abstract

Name: Henry Lin  
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Walter Reed National Military Medical Center  
Role(s): Submitter; Presenter

Role(s): Non-presenting contributor  
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Name: Michael Stany  
Organization: WRNMMC

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Walter Reed National Military Medical Center (WRNMMC) at Bethesda is piloting a project perioperative software (LiveData™) which provides interoperability with existing Military Treatment Facility inpatient Electronic Medical Record (Essentris™) & Surgical Scheduling System (S3) & already meets Department of Defense Information Assurance Certification & Accreditation Process (DIACAP) requirements at reasonable costs to improve operative productivity, efficiency and patient-centered safety. The included modules are:

- OR-Schedule Board: a real-time view of the day's surgical cases, enabling staff to accommodate real-time change in case duration & move to different rooms to optimize full use of all operating rooms.
- PreOp Board: a consolidated, dynamic, operational view of patient status and preoperative case workflow, including checklists with detailed verification for the entire perioperative status to view easily & address potentially delayed milestones quickly to prevent delays in cases.
- OR-Dashboard: an integrated display of patient data from hospital medical records and physiological devices with automated surgical workflow and patient safety information including Active Time Out®, a real-time, interactive surgical safety checklist.
- Other Modules allow dynamic, operational view of patient status include the PACU Board & Family Waiting Board.
- future Analytics: comprehensive data analysis and reporting transforms real-time operational data into actionable quality, compliance, and efficiency intelligence.

Learning Objectives

1. Understand the potential power of perioperative software to improve operating room productivity, efficiency, & patient safety.
2. Understand the need to acquire this software's interoperability at reasonably low cost & utilize existing hospital information systems (current inpatient & ambulatory medical record & surgical scheduling system).
3. Understand the obstacles in achieving Dept of Defense Information Assurance Certification & Accreditation Process (DIACAP) requirements & its significant length of time.
4. Understand the obstacles in providing this software to other Military Treatment Facilities.
5. Understand the impact of contract lengths in successfully implementing software improvements that improve patient care.

List of Participants and Their Roles in the Abstract

Name: Barbara Helen Anderson  
Organization: Herren Associates  
Role(s): Submitter; Presenter

Name: Patricia Carter  
Organization: Booz Allen Hamilton  
Role(s): Presenter  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

There is a hidden disconnect in the health care system. Much of the long term care received by patients with complex chronic conditions is provided by family caregivers (FCG) who are under resourced, often untrained, and minimally included in care planning. As the elderly population increases with the aging of the Baby Boomers more patients will have complex chronic diseases in the future and fewer FCGs will be available to provide care. Patients are at risk for medical errors and new models for better care and coordination will be essential. This session will provide unique insights into implications for care to the chronically ill, including Service members and Veterans.

This session reviews FCG demographics, the unique characteristics of FCGs of Service members and Veterans, the types of care typically provided by FCGs, the factors that are increasing the need for FCGs, the barriers that limit effective interaction between practitioners and FCGs, and the potential impact on efforts to re-design care models that aim to increase delivery of care into the home. The session concludes with an interactive exploration of the barriers to effective practitioner / FCG engagement (e.g., legal limitations to sharing information, lack of FCG information in medical records, potential burden on practitioners) and recommendations to overcome these barriers.

Learning Objectives

1. Describe the current state of family caregiving in general, the unique situation of family caregivers in a military context.
2. Explain the factors that are driving the need to increase proactive engagement of family caregivers in disease management and the potential implications for patient care.
3. Identify the systemic barriers to proactive engagement of family caregivers and develop recommendations for overcoming those barriers.

List of Participants and Their Roles in the Abstract

Name: Jörg Ruff

Organization: German Air Force Center for Aerospace Medicine

Role(s): Submitter; Presenter

Name: Thilo Zweigner

Organization: German Air Force Center for Aerospace Medicine

Role(s):

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Expertise in Aerospace Medicine and Altitude Medicine for the German Federal Armed Forces has to be provided by the German Air Force Center of Aerospace Medicine. It supports flying operations in Army, Navy, and Air Force and operations in or from high altitudes in specialized, special and mountain forces. For these customers the expertise has to cover a broad specter of human sciences from multi-specialty clinical medicine and physiology to psychology, sports sciences, forensic toxicology, ergonomics and aerospace engineering. Ongoing operations, new scenarios, and progress in technology permanently create new problems to be solved and questions to be answered. Own resources, on the other hand, with regard to staff, equipment, methods and professional sub-specialties available within the own organization are limited, and so is the budget available. Co-operation with other institutions, with external partners, military and civilian as well as national and international therefore is mandatory. These partnerships both for the own institution and the partners are beneficial in so far, as experience and methods can be exchanged, equipment can be used more efficiently by sharing it, while pooling allows for greater impact. The partnerships range from single projects with limited scope to long-term strategic partnerships. With the Institute of Aerospace Medicine, German Centers for Air and Space (DLR), Cologne a strategic partnership is under way. Apart from research projects it will include common use of newly built infrastructure and the development of a post graduate training program in Aerospace Medicine.

Learning Objectives

1. describe German Air Force Center of Aerospace Medicine
2. identify long-term strategic partnerships
3. know post graduate training program in Aerospace Medicine

List of Participants and Their Roles in the Abstract

Name: Thuy TT Trinh  
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Name: Thi P Chu  
Organization: DOD PEPFAR Vietnam  
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Name: Hung Ngo M  
Organization: DOD PEPFAR Vietnam  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Issues: Blood safety is a great need for both civilian and military health care system. In order to support Ministry of Defense/Military Medical Department (MOD/MMD) of Vietnam to develop a strategy for its blood safety program and to follow recent issued regulation of the ministry of health (MOH) on blood safety, DoD PEPFAR and PACOM supported MMD to carry out an assessment on current situation of blood safety in the Vietnam military.

Description: in March 2014, constructed data collection forms were sent to all 30 military hospitals that focused on personnel, trainings, equipment, quality assurance, blood safety procedure and blood units used in 2013. Of these hospitals, three were assessed at the site using the same forms and observation was done.

Results: Six (20%) of them were regular collection sites (5 of them has been supported by DoD PEPFAR since 2006), 19 (63%) were collected blood for emergency uses. The three selected hospitals had well trained staff, one of them can be a military central blood bank, one can be a collection site with some needed upgrade on infrastructure, equipment and recoding practice.

Conclusions: MMD should classify blood facility by function based on hospital mission then standardize equipment, procedure and testing methodology following the MOH regulation for blood safety for each site. Importantly, MMD should develop a strategy on blood safety in collaboration with the national program, DoD PEPFAR and PACOM.

Learning Objectives

1. To share findings from the assessment on the blood safety in the Military of Vietnam
2. To provide recommendation on direction of blood safety for specific hospitals
3. To provide recommendation for development of strategy for blood safety in the Vietnam military

List of Participants and Their Roles in the Abstract

Name: Jean Otto

Organization: Armed Forces Health Surveillance Center

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Remotely piloted aircraft (RPA), also known as drones, have been used extensively in the recent conflicts in Iraq and Afghanistan. Although RPA pilots in the U.S. Air Force (USAF) have reported high levels of stress and fatigue, rates of mental health (MH) outcomes in this population are unknown. We calculated incidence rates of 12 specific MH outcomes (six diagnoses and six counseling codes) among all active component USAF RPA pilots between 1 October 2003 and 31 December 2011, and by various demographic and military variables. We compared these rates to those among all active component USAF manned aircraft (MA) pilots deployed to Iraq/Afghanistan during the same period. The unadjusted incidence rates of all MH outcomes among RPA pilots (n=709) and MA pilots (n=5,256) were 25.0 per 1,000 person-years and 15.9 per 1,000 person-years, respectively (adjusted incidence rate ratio=1.1, 95% confidence interval=0.9-1.5; adjusted for age, number of deployments, time in service, and history of any MH outcome). There was no significant differences in the adjusted rates of any MH outcomes, including post-traumatic stress disorder, depressive disorders, and anxiety disorders between RPA and MA pilots. Military policymakers and clinicians should recognize that RPA and MA pilots have similar MH risk profiles.

Learning Objectives

1. Cite the frequency of mental health outcomes among remotely piloted aircraft (RPA) pilots in the US Air Force (USAF)
2. Recognize how the risk of mental health outcomes among RPA pilots compare to those of manned aircraft pilots
3. Discuss disincentives for reporting a mental health outcome among USAF pilots

List of Participants and Their Roles in the Abstract

Name: Ronald Burke

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Role(s): Submitter; Presenter

Name: Bob Walters

Organization: DoD Veterinary Service Activity

Role(s):

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The NATO Standardization Agency was created to coordinate standardization efforts among NATO nations to enhance interoperability during multi-national military operations. Force Health Protection is an important component of these standardization efforts as it affects the daily lives of all NATO service members whether the mission is combat operations, humanitarian assistance, or peace-keeping. The One Health interface (the interaction of humans, animals, and the environment) is an area of Force Health Protection that especially requires standardization as it involves coordination of multiple professional disciplines (e.g., physicians, veterinarians, environmental engineers) whose responsibilities often vary depending on national military doctrine. The Food and Water Safety and Veterinary Support Panel and the Countering Improvised Explosive Devices – Military Working Dog Panel are two NATO groups where One Health coordination efforts are especially apparent. Ongoing standardization efforts include development of Clinical Practice Guidelines to assist physicians in providing emergency care to military working dogs when veterinarians are not immediately available, improving food safety and food defense across the entire spectrum of food service (“farm to fork”) and enhancing the ability of military commanders in meeting water safety requirements during rapid contingency operations.

Learning Objectives

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

The rescue of wounded persons in combat environments under austere conditions is a most demanding challenge for military medical personal (i.e. emergency physicians, paramedics, or emergency medical technicians) Therefore, medical competence and procedures have to be trained under stressful conditions and in a military context. Meanwhile, simulation is recognized as a valuable tool in various medical specialties even in military training.

The Bundeswehr Hospital Hamburg has implemented a prototype medical simulation center for medical team training. Training situations including patient transport in a small, combat vehicle as well as preclinical and clinical care are simulated to train and check the performance of medical team. This kind of training has improved the competence of Bundeswehr medical teams in various missions. However, limited objective parameters are available to measure training success, improved competence or stress resilience of trainees. These parameters are needed to compare the performance of trained teams, to implement a standard and to assess learning curves. To overcome this shortage, an integrated approach is presented, which includes learning curve analysis (CUSUM), psychological testing, mental training, physiological parameters (heart rate variability, skin resistance), potential laboratory markers (cortisol) and mental training procedures (coping strategies). Moreover, this approach will allow to evaluate new training techniques e.g. to cope stress reactions at any time. The dimensions of quality in education will be discussed in this context.

Learning Objectives

1. Define acquired medical competence after training in medical simulation centers
2. List physiological parameters with respect to stress reactions in medical simulation
3. Discuss dimensions of quality in medical education

List of Participants and Their Roles in the Abstract

Name: Ulrich Schotte

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Rabies, the oldest known viral zoonotic disease of mankind, is still significantly underreported and neglected throughout the world, posing a serious public health threat especially in developing countries. The disease is caused by different lyssavirus species with a lethality of 100% in unvaccinated individuals. The “classical” rabies virus (RABV) is particularly important for public health through dog-mediated rabies.

During the ISAF mission a patient was admitted to the French Field Hospital in Kabul. After the patient died, brain tissue samples were transferred to the German Veterinary Laboratory in Mazar-e Sharif. The Fluorescent Antibody Test (FAT) on brain smears was positive, and rabies diagnosis was confirmed by the Rabies Tissue Culture Infection Test (RTCIT) at the WHO Collaborating Centre for Rabies Surveillance and Research at the Friedrich-Loeffler-Institute, Germany. Partial sequencing and subsequent molecular phylogenetic characterization revealed a 99% sequence identity to the “arctic like”-lineage of RABV occurring in the geographical origin of the patient.

To prevent human rabies an interdisciplinary risk assessment should define preventive measures before deployment. Besides preventive vaccination and adequate post exposure prophylaxis, risk mitigating measures should also include the training in preventive behavior.

Advanced molecular laboratory diagnostics support both prevention and control measures not only through rapid confirmation but also to provide additional molecular epidemiological information.

This tragic human rabies case highlights that infectious diseases including zoonosis in the area of operation can be a serious health threat for deployed soldiers. This case shows the importance of close international cooperation inside NATO and their confederates and beyond.

Learning Objectives

1. recognize clinical presentation of Rabies in humans and animals
2. explain the epidemiology of Rabies and related lyssaviruses
3. discuss preventive measures on a interdisciplinary basis

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Many military MTFs provide care for primarily healthy active-duty populations. In these settings clinical emergencies, including adult/pediatric cardiopulmonary arrest and emergent obstetric situations can be relatively infrequent occurrences. Maintaining a robust and coordinated response to these types of low-frequency, high-acuity events is beset by multiple challenges, but given the high-stakes involved, achieving such a response is of the utmost importance. We present a comprehensive model developed at Naval Hospital (NH) Naples targeted at achieving a high-quality response to clinical emergencies in settings where the frequency of such events is low. The model focuses on establishing a sustainable drilling program for conducting high-fidelity simulations using equipment readily available at MTFs. Six points of emphasis include 1) utilization of a team approach designed with special attention to functioning optimally at times of minimum staffing, 2) implementation of a system for maintaining uniform emergency equipment throughout the institution with centralized instead of departmental process ownership, 3) minimization of administrative barriers to conducting frequent drills involving multiple departments, 4) utilization of provider-designed and supervised drill scenarios tailored to the challenges of the specific facility with emphasis on both cognitive and motor tasks, 5) adoption of a discreet feedback system for addressing identified systemic deficiencies in a timely fashion and 6) taking pro-active measures for fostering a “culture of readiness” at the institutional level. Given that many MTFs face similar challenges in this arena, we believe that our model may have wide applicability within military medicine.

Learning Objectives

1. Recognize obstacles to optimal performance when responding to clinical emergencies in low-volume MTFs
2. Appreciate the importance of high-fidelity simulation and the role subject-matter experts play in such scenarios
3. Understand that expensive simulation equipment is not necessary for designing high-fidelity drills
4. Recognize the importance of sustainability and repetition in clinical emergency readiness planning

List of Participants and Their Roles in the Abstract

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Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

**BACKGROUND:** At a 2013 Military Operational Medical Research Program (MOMRP) interim progress review (IPR) of competitively awarded PTSD research, numerous investigators expressed their concern with DoD IRB delays and described deleterious impacts on their studies. **METHODS:** Ten IPR attendees, to include experienced researchers and key government stakeholders, voluntarily held several subsequent teleconferences to discuss perceptions of DoD IRB regulations and processes. **RESULTS:** Investigators understood and accepted the importance of IRBs to protect patients from unnecessary risks and to ensure patients can make informed choices about study participation. However, investigators perceived the DoD research regulations as excessive and confusing. The IRB review process was viewed as more opaque, unpredictable, slow, and adversarial than what they experienced in other settings, including other US government settings. To illustrate, we offer several brief examples. **CONCLUSION:** DoD IRB delays often appear in the service of managing institutional risk, rather than protecting research participants and balancing the risk and benefits of research. IRBs may see more risk associated with moving quickly than risk related to delay, choosing to err on the side of deliberation and what appears to be increased bureaucracy. However, IRB delays can negatively impact the conduct of research, sometimes reducing the likelihood a study will achieve an adequate sample size and arrive at a clear answer. In these cases, the review process harms study participants: time, transportation, childcare costs and other participant burdens are for naught. Secondly, an inefficient IRB process comes at unnecessary public expense, may inadvertently incentivize leaders to bypass the research process altogether and implement un- or under-tested interventions to help their patients, stifles the military's ability to answer time-sensitive and mission-relevant research questions, and reduces confidence that funding DoD research will be a wise return on investment.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Karen Chaves

Organization: Agency for Healthcare Research and Quality

Name: Jeffrey Brady

Organization: Agency for Healthcare Research and Quality (AHRQ)

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Affordable Care Act is improving the access to health care for all Americans. However, even if you have access to health care, many patients, especially low income and minority patients, experience poor quality of care. Health care quality depends on good communication between providers and patients. But many patients feel unprepared to talk with their doctor. This presentation will focus on tools and resources for improving patient-centered care and patient-centered outcomes. These include evidence-based resources and information from the Agency for Healthcare Research and Quality's Patient Centered Outcomes portfolio for researchers and providers, and consumer information such as Tips to Help Prevent Medical Errors, Questions to Ask Your Doctor, and others. Quality health care is a team effort and patients play an important role. These resources are useful for health care providers and administrators to help nurture a health care environment that is more patient-centered and improve the delivery of health care for all Americans.

Learning Objectives

1. Identify resources appropriate for specific health care settings for improving patient centered care.
2. Identify funding opportunities for conducting patient centered outcomes research.
3. Understand the dimensions of patient centered care and data in the U.S.

List of Participants and Their Roles in the Abstract

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Role(s): Submitter; Presenter

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Organization: DoD Veterinary Service Activity

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Animal health is integral to economic, food and health security. Globally, 70% of people living in poverty rely on livestock for their livelihood and experts estimate that 75% of emerging infectious diseases originate in animal populations. Veterinary medicine is often an economic security for livestock owners, where its value is realized as marketed production gains. However, health and food security are also strengthened by a healthy animal population as zoonotic disease transmission is decreased and high quality protein sources are stabilized. The geopolitical conditions that foment instability and conflict are also associated with food, health and economic insecurity likely due to the breakdown of systems. Healthy animal populations require functioning animal health systems, administered through public-private partnerships. Stability Operations should leverage Veterinary Services' animal health expertise to strengthen animal health systems within the partner nation. Traditionally, US Army Veterinary Support to Stability Operations involved delivery of veterinary care to livestock, but this approach has been criticized for having negative impacts on local animal health systems. A capacity building approach for Veterinary Services' Global Animal Health engagements was developed through a professional education initiative in partnership with the University of Georgia. US Army Veterinary Services now integrates global veterinary medicine competencies into the Veterinary Corps Officer training lifecycle. This global health engagement model has been leveraged to implement "One Health" activities in support of operations in the Horn of Africa and has the potential to develop coastal community engagement strategies in support of the US pivot to the Pacific.

Learning Objectives

1. Explain how animal health is a key component of global health security strategy
2. Describe how veterinary activities and engagements have transitioned from health care delivery to a capacity building model
3. Explain how the DOD veterinary engagement model can be leveraged to support the US Global Health Agenda

List of Participants and Their Roles in the Abstract

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Name: Aaron Kite-Powell  
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Name: Howard Burkom  
Organization: Johns Hopkins Applied Physics Laboratory  
Role(s): Presenter

Name: Julie Pavlin  
Organization: Armed Forces Health Surveillance Center  
Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The US Department of Defense has used ESSENCE Service-wide for syndromic surveillance since 2006. Since that time, staff have implemented technical and scientific improvements to expand the breadth of data available, improve performance, and integrate new analytic capabilities. To enable timely system improvements, the Defense Health Services Systems (DHSS) started a scrum methodology that prioritizes user suggestions into a sprint. Sprints are initiated approximately every 6 weeks, and improvements can be released before starting the next sprint. Since 2012, many changes have been incorporated through the sprints including technical fixes and visual improvements, but also significant progress on ICD-10 conversion, improving search capabilities and site selections, and expanding the fields available to create a user-defined disease category and allowing sharing of that category among all ESSENCE users. DoD and partner researchers at the Johns Hopkins University Applied Physics Laboratory continue investigations to improve the accuracy, timeliness and usefulness of ESSENCE. In 2014, DHSS is beginning an integration effort to use new algorithms that fuse a variety of health indicators to improve the specificity of alerting and also include new data fields to determine the potential severity of an outbreak. Priorities for the future include improving timeliness in accessing data, exploiting time-of-encounter information for better sensitivity, utilization of different data sources such as phone consults, and automated data quality indicators for instant notification of a data delay. This presentation will include a review of ESSENCE capabilities and the impact of improvements on public health surveillance.

Learning Objectives

1. The learner will be able to describe ESSENCE capabilities.
2. The learner will be able to better interpret syndromic surveillance data displayed in ESSENCE.
3. The learner will be able to explain the improvements in ESSENCE.

List of Participants and Their Roles in the Abstract

Name: Remington Lee Nevin  
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Role(s): Submitter; Presenter

Name: Elspeth Cameron Ritchie  
Organization: Department of Behavioral Health Wash DC  
Role(s): Presenter  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Mefloquine (previously marketed in the U.S. as Lariam®) is a quinoline derivative antimalarial with significant intoxicating and neurotoxic potential. Initially developed by the U.S. military over 40 years ago, mefloquine's approved product label was recently mandated by the U.S. Food and Drug Association (FDA) to carry a boxed warning (or "black box") cautioning that the drug's adverse neuropsychiatric effects could last years after use or could even be permanent. In response, mefloquine has been declared the antimalarial of "last resort" by the Department of Defense (DoD), and even banned outright within certain military organizations.

In this session, presented by two leading authorities on the mental health effects of mefloquine, the history of the drug's development and use within U.S. military populations are discussed, and the key psychiatric and neurological features of mefloquine intoxication and its chronic neurotoxic sequelae are described. Considerations are discussed to aid the military healthcare professional in the recognition of mefloquine intoxication and diagnosis and management of its chronic toxicity syndrome (or toxidrome), including recommendations for obtaining additional specialist referrals.

The mefloquine toxidrome may complicate and confound diagnosis of other conditions comorbid with military service and deployment, particularly posttraumatic stress disorder, traumatic brain injury, somatoform and personality disorders, and therefore has significant relevance in forensic psychiatry and in U.S. military disability evaluations. The potential role of mefloquine intoxication and the chronic toxidrome in cases of violence and suicide among U.S. military personnel are also discussed.

Learning Objectives

1. Describe key neuropsychiatric features of mefloquine intoxication and the chronic mefloquine toxicity syndrome.
2. Identify relevant clinical considerations in the recognition of mefloquine intoxication and the diagnosis and management of the mefloquine toxidrome.
3. Recognize the significance of mefloquine intoxication and the mefloquine toxidrome to forensic psychiatry and U.S. military disability evaluations.

List of Participants and Their Roles in the Abstract

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Organization: National Center on Homelessness Among veterans  
Role(s): Non-presenting contributor

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Organization: US Department of Veteran Affairs  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Ending Homelessness among Veterans is a national priority requiring a comprehensive and sustained effort. Homeless Veterans are significantly sicker and more complex than the general population and our traditional approach to care has not always worked. Over 40% of homeless Veterans go to the emergency department and 1 in 4 are hospitalized annually. The Homeless-PACT (HPACT) model has taken an evidence-based and data-driven approach to identifying highest-risk, highest-cost homeless Veterans cycling through ERs and inpatient wards who are not getting needed care and engaging them in a high-intensity, integrated services model that both stabilizes them clinically and expedites movement to permanent housing. H-PACTs have been implemented in over 50 VA facilities and actively manages >10,000 Veterans who are either currently homeless, actively transitioning to stable housing or at imminent risk of becoming homeless. The H-PACT model emphasizes enhanced, low-threshold access to care, wrap-around services that incorporate both clinical and social needs, community-linked case management, data systems tracking and decision-assist tools, and population-tailored care. Outcomes to date include: (a) high-intensity ambulatory services engagement with Veterans averaging 4.0 primary care visits, 1.5 specialty visits, and 6.0 team visits annually; almost 90% are receiving mental health services; (c) a 24% reduction in emergency department visits (2,249 fewer encounters) and 27% reduction in hospitalizations (440 fewer admissions); and expedited stable housing placements. The program demonstrates how an integrated health systems capacity and strategic approach to ending homelessness can be leveraged to provide effective, efficient and meaningful care to this high-risk, complex and disadvantaged population.

Learning Objectives

1. To identify features unique to homelessness that drive adverse outcomes and make care more difficult to deliver
2. To describe both obstacles and opportunities within an integrated health system to providing care and expediting housing solutions for this population
3. To understand key elements within the H-PACT model that distinguish its approach and describe key outcomes associated with its national implementation
4. To understand the importance of metrics in promoting systems change and transforming care

List of Participants and Their Roles in the Abstract

Name: David Marcozzi

Organization: USASOC

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Almost 90% of all combat deaths occur before the casualty reaches a Medical Treatment Facility (MTF) and of those deaths—up to 24% are potentially preventable. Therefore, the fate of the warfighter lays often in the hands of the providers first to care for the casualty—the medic, corpsman, pararescue, or fellow soldier.

Implementing Tactical Combat Casualty Care (TCCC) evidence-based guidelines throughout the 75<sup>th</sup> Ranger Regiment reduced this preventable death rate to 3%. Providing good medicine with good tactics on the battlefield is essential to maintain the security of providers, improve patient survival and reduce suffering.

Under the Army Institute for Surgical Research, the Joint Trauma System (JTS) promotes improved outcomes by promoting evidence-based trauma care delivery systems. Recently included within the JTS continuum of trauma care approach was point of injury (POI) care—and the Prehospital Data Registry was established. Through this Registry, JTS has begun to analyze and improve POI care. One such analysis conducted, from AUG 13 to FEB 14, found that 49% of conscious GSW/amputation casualties did not receive pain medications. This information was then conveyed to CENTCOM providers. Notable, this year GEN Dunford directed all CENTCOM medical personnel to maintain proficiency in TCCC guidelines. Applicable on any battlefield, these guidelines save lives and reduce pain. All services have a role in battlefield medicine, and jointly approaching this critical area will improve the force and support our most critical resource--the warfighter.

Learning Objectives

1. Describe Tactical Combat Casualty Care
2. Explain the Prehospital Trauma registry
3. Discuss jointly advancing battlefield point-of-injury care

List of Participants and Their Roles in the Abstract

Name: Charlotte Marie Lewis

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Role(s): Submitter; Presenter

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Organization: US Coast Guard

Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Annually, one third of United States Coast Guard (USCG) active duty Service Members relocate to a new duty station. The positive culture of transfer to promote leadership and professional opportunity may adversely affect the culture of healthcare, in which the cost of travel to obtain services exceeded approximately \$4,500,000 between fiscal years 2011 and 2013. With access to health insurance via TRICARE and healthcare via civilian and Department of Defense treatment facilities, why are Service Members traveling to obtain care? How far and frequently are they traveling? Is mission readiness affected?

USCG focuses an initial scope of rising cost research on a population with potentially elevated healthcare use: beneficiaries enrolled in the Special Needs Program (SNP). The SNP provides enrollment, non-clinical case management, and duty assignment consultation for Service Members with dependent family members with special needs (medical, physical, psychological, and/or educational).

Survey analyses qualify SNP best practices, quantify dependent family members' demographics, define access to care and services reflective of condition, frequency of care, and travel, and delineate actionable process improvement steps for non-clinical case management, program oversight, and compliance with policy.

These findings, utilized in conjunction with TRICARE operations guidance and Department of Defense Exceptional Family Member Program policy, assist in efficiently, and transparently, standardizing SNP policy and procedures to enhance the ability of dependent family members with special needs to access resources, ensure continuity of care during relocation, and potentially reduce travel to obtain healthcare costs.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Derek Smolenski

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Suicide rates in the US military have been increasing over the last decade. A hypothesized cause of this increase is deployment in support of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). This retrospective cohort study used administrative data for approximately 4.1 million Service members (SMs) from the Air Force, Army, Marine Corps, and Navy, both Active and Reserve components, from 2001 – 2007 and mortality data from 2001 – 2009 to compare rates of suicide between SMs who had and had not deployed. Additionally, rates were adjusted for sex, race, and age in a direct comparison with US population data. The survival analysis did not identify an association between deployment and suicide. This was consistent both for SMs who were still affiliated with the military and for SMs who had separated from the military. Rates of suicide were higher for SMs after separation from service. SMs who separated before completing four years of an enlistment or commission had the highest rates of suicide. Rate comparisons against US population data showed that while the rates of suicide were increasing in the cohort for both deployed and non-deployed SMs, the adjusted rates were either below or approximately equal to the rates in the civilian population over each year of the cohort. In conclusion, we did not observe an association between deployment and the rate of suicide in this cohort. The elevated rates of suicide among SMs who exited the military early indicate a population that may benefit from enhanced intervention.

Learning Objectives

1. Define a time-dependent explanatory variable.
2. Interpret a hazard ratio.
3. Identify a population at increased risk for suicide.

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Alcohol misuse is the most common mental health problem in the U.S. military and arguably the military's most pressing health concern. Alcohol misuse affects at least one in five soldiers in garrison. Mental health screening of active duty service members returning from deployment suggests that a substantial proportion of service members endorse alcohol misuse, but an alarmingly low number are referred to treatment for a substance use concern.

Current military health system policy and programs are well situated to identify and treat service members with alcohol use disorders, but are not designed to identify and treat unhealthy sub-threshold alcohol misuse. Research and best practices pertaining to identifying and differentiating alcohol misuse and alcohol use disorders is discussed with an emphasis on screening and referral of alcohol misuse in military primary care. Challenges associated with identifying alcohol use problems in the military environment are addressed and recommendations are provided. Brief alcohol interventions are effective at reducing alcohol risk and of particular relevance to military readiness have been shown to improve presenteeism. An evidence based approach of Screening, Brief Intervention, and Referral to Treatment (SBIRT) for addressing alcohol misuse in primary care is presented.

Learning Objectives

1. Gain a working knowledge of policy and clinical issues related to alcohol use disorders in the military health system
2. Identify and differentiate alcohol use disorders
3. Introduce an approach for screening, brief intervention, and referral for alcohol misuse in military primary care

List of Participants and Their Roles in the Abstract

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Organization: Federal Bureau of Prisons

Role(s): Presenter

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Organization: Federal Bureau of Prisons

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Managing the health of 220,000 federal inmates within the Federal Bureau of Prisons' (BOP) 119 institutions from Puerto Rico to Hawaii with 3,800 healthcare staff has many challenges. Challenges include managing over 12,000 inmates with chronic hepatitis C viral (HCV) infection; high cost of treatments; management of increasing geriatric inmate populations; maintaining a wide scope of Clinical Practice Guidelines; and, recruiting and maintaining a robust healthcare team. Discussion will include a look into these challenges and how the BOP has planned, met, and is working to conquer these issues.

Learning Objectives

1. Recognize the difficulty managing very large patient populations with chronic hepatitis C viral infection
2. Identify the difficulties in managing an aging geriatric inmate population
3. List of comprehensive set of Clinical Practice Guidelines
4. Explain challenges in maintaining a health service work force in 119 institutions from Puerto Rico to Hawaii

List of Participants and Their Roles in the Abstract

Name: Elspeth Cameron Ritchie

Organization: Department of Behavioral Health Wash DC

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Long War began with 9/11. PTSD, TBI and suicide have emerged over the thirteen years of war as monumental issues for our service members, veterans and their families. In the early years of the wars in Afghanistan and Iraq, unanticipated and extended deployments were extremely taxing for military families. The murders and murder/suicides at Ft Bragg in 1992 highlighted the perils of rapid return from the battlefields in Afghanistan to civilian life. Investigations showed continuing problems with access to care, as well as the reluctance of career minded Soldiers to seek treatment. In response to those and other events, training and systems were put into place to prepare Soldiers for re-deployment. For example, in order to improve access to care, the Army and other Services have dramatically increased their number of mental health providers. Stigma, however, is a persistent problem. The rising suicide rate has been a major concern for all in the Army. The combination of unit and individual risk factors include: the high operations tempo, feelings of disconnectedness on return home, problems at work or home, pain and disability, alcohol, and easy access to weapons. The military has begun to achieve their goal of reducing the suicide rate among active duty, but not in the National Guard. Family members are clearly effected by the long war as well. Fortunately there are emerging effective treatments for PTSD and TBI. These include the established evidence-based therapies, as well as new integrated approaches.

Learning Objectives

1. Describe psychological effects of combat.
2. List different evidence-based approaches for PTSD.
3. Understand the challenges of differentiating between TBI and PTSD.

List of Participants and Their Roles in the Abstract

Name: Elspeth Cameron Ritchie

Organization: Department of Behavioral Health Wash DC

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

For women, 9/11 ushered in an increasing role in the US military. Technically only recently have women officially been allowed into combat occupations. However it is now widely accepted that women have been in combat since long before 9/11. Military women also make up a high proportion of medical personnel. Overall medical personnel have less exposure to direct combat, but more to the consequences of the casualties of war. These include not just wounded Soldiers and Marines, but enemy combatants and local casualties of bomb blasts and shootings. Many deployed mothers find injured and dead children especially heart-rending. This presentation looks to 1) to highlight the medical (with a focus on reproductive and gynecological systems) challenges for women in military service and on deployment; 2) focus on mental health issues for military women; and 3) translate it into actionable information for clinicians.

Learning Objectives

1. List reproductive and urogenital issues for deployed women.
2. Describe mental health issues arising from combat and deployment for women.
3. Know how to prepare Soldiers and other service members for staying healthy in deployment.

List of Participants and Their Roles in the Abstract

Name: Samuel Schaffzin  
Organization: USPHS/CMS  
Role(s): Submitter; Presenter

Name: Skip Payne  
Organization: Division of the Civilian Volunteer Medical Reserve Corps  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Health Occupations Students of America (HOSA) – Future Health Professionals is a national student organization made up of more than 160,000 secondary and post-secondary students who are interested in pursuing careers in health care. HOSA's two-fold mission is to promote career opportunities in the health care industry and to enhance the delivery of quality health care to all people. Since 2006, the USPHS Commissioned Corps and the Office of the Surgeon General have been educating HOSA members on public health issues and the role of the federal government in promoting disease prevention, improving health promotion, and eliminating health disparities. This session will highlight how USPHS Commissioned Corps officers are currently working with HOSA at the national, state, and local levels to carry out a number of initiatives. Presenters will discuss ways in which USPHS Commissioned Corps officers and health professional members of our sister services can collaborate with and engage the next generation of public health and healthcare leaders. They will explore ways to encourage all HOSA advisors and students to join and be actively involved in what has become a powerful and long standing USPHS/Uniformed Services-HOSA Partnership.

Learning Objectives

1. Discuss ways to engage the next generation of public health and healthcare leaders.
2. Introduce the HOSA-Future Health Professionals as an example of an organization that can contribute to the public health pipeline
3. Describe ways in which USPHS, its sister services, and HOSA can work together to educate the next generation of medical and public health professionals about key public health issues.
4. Identify related mentorship possibilities for both students and uniformed service members to participate in across the country.

List of Participants and Their Roles in the Abstract

Name: Valisha Price

Organization: United States Marshals Service

Prisoner Operations Division

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

More than 1.5 million people in the United States (US) are incarcerated. Compared to the general population, incarcerated persons are more than twice as likely to be infected with the human immunodeficiency virus (HIV). Moreover, it is estimated that more than 1 in 5 HIV-infected Americans have been previously or are currently incarcerated. The USMS is distinguished from other correctional systems in that it uses local, city, and county jails to house its prisoners until they are sentenced and transferred to the Federal Bureau of Prisons. USMS prisoners can be transferred to multiple jails during the judicial process, possibly disrupting the continuum of care. Furthermore, correctional practitioners have not adopted a standard model for prescribing HIV medications. Although prisoners in the USMS have seroprevalence rates that are comparable to the general population, little is known about their hospitalization rates and predictors. A retrospective data-analysis was conducted to determine the number of HIV-related hospital admissions, average length of stay among USMS prisoners over a one-year period, then a comparison to the national average as provided by a comparable population, national co-hort, the HIV Research Network (HIVRN). A second retrospective data-analysis was then conducted to determine nonadherence to the United States Department of Health and Human Services (DHHS) Antiretroviral Treatment Guidelines in USMS pretrial prisoners by identifying the number of prisoners who received one or more non-recommended medications. Finally, demographic correlates of nonadherence to the DHHS Antiretroviral Treatment Guidelines in USMS pretrial prisoners were identified.

Learning Objectives

1. Describe United States Marshals Service prisoner hospitalization rates compared the general population.
2. Describe United States Marshals Service prisoner length of hospitalization stay (LOS) compared to the general population.
3. Discuss nonadherence to the DHHS Antiretroviral Treatment Guidelines in USMS pretrial prisoners.
4. Identify demographic correlates of nonadherence to the Department of Health and Human Services (DHHS) Antiretroviral Treatment Guidelines in USMS pretrial prisoners.

List of Participants and Their Roles in the Abstract

Name: Christina Marie Hylden  
Organization: San Antonio Military Medical Center  
Role(s): Submitter; Presenter

Name: Travis Burns  
Organization: San Antonio Military Medical Center  
Role(s): Non-presenting contributor

Name: Daniel Stinner  
Organization: USA Institute of Surgical Research  
Role(s): Non-presenting contributor

Name: Johnny Owens  
Organization: Center for the Intrepid  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Purpose: Blood flow restriction (BFR) training, venous outflow restriction during low resistance exercises, is a safe and effective method to improve strength in lower extremity trauma patients. Its indications continue to expand as more research is completed and further clinical results are published.

Methods: Seven post-traumatic patients were treated at a single institution with the same BFR protocol. All patients had isokinetic dynamometer testing indicating persistent thigh muscle weakness despite previous treatment with traditional therapy. The patients underwent two weeks of therapy with a BFR training protocol: a venous tourniquet set at 110mmHg while performing leg extensions, leg press, and reverse leg press. All affected extremities were re-tested after two weeks (six treatment sessions). Dynamometer measurements were done with flexion and extension at two speeds.

Results: All patients demonstrated improvements in strength and power of the treated extremity after two weeks of occlusion training. There were improvements shown in peak torque, power, and total work for both knee flexion and extension. Peak torque improved an average of 17-33%. Power improved an average of 37-76%, and total work improved an average of 36-48%.

Conclusion: BFR training is a tool to help restore strength in patients with post-traumatic muscle weakness. For individuals who cannot participate in high-resistance exercise, it is an option that leads to effective thigh muscle strength gains at low resistance levels. The indications for BFR training in a rehabilitation setting are just beginning to be explored.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Ashleigh Kristin McCabe

Organization: Navy and Marine Corps Public Health Center

Role(s): Submitter; Presenter

Name: Gosia Nowak

Organization: Navy and Marine Corps Public Health Center

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The EpiData Center (EDC) at the Navy and Marine Corps Public Health Center has established daily electronic laboratory case identification processes. Electronic laboratory case identification, when used as part of an automated electronic laboratory reporting system, improves efficiency and completeness of reporting and improves public health awareness. The EDC's processes identify laboratory positive cases of reportable medical events within Health Level 7 (HL7) formatted chemistry, microbiology, and pathology records. Cases for all Department of Defense (DOD) beneficiaries tested at fixed-military treatment facilities are extracted using Standard Query Language (SQL) and Statistical Analysis Software (SAS) algorithms. These algorithms are designed based on reportable event guidelines, DOD specific data analysis, and preventive medicine (PM) subject matter expert input. Once extracted, case information is available through the Disease Reporting System – internet version (DRSi) and made available to impacted personnel across all services. Daily case lists are distributed to PM personnel at DOD surveillance hubs for high level visibility. The EDC compiles monthly, quarterly, and annual reports indicating which laboratory positive cases with a corresponding medical event report. Electronic laboratory case identification is used by the EDC and DOD public health entities to conduct surveillance for diseases including influenza, sexually transmitted infections, and other reportable diseases.

This presentation will explore in detail 1) the processes establishing the electronic laboratory case identification algorithms, 2) how laboratory positive cases feed to a reportable disease warehouse, and 3) how these data have been integrated into military public health surveillance activities on a routine and ad hoc basis.

Learning Objectives

1. understand the processes establishing the electronic laboratory case identification algorithms
2. understand how laboratory positive cases feed to a reportable disease warehouse
3. learn how these data have been integrated into military public health surveillance activities on a routine and ad hoc basis

List of Participants and Their Roles in the Abstract

Name: Dana Lee

Organization: Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury

Role(s): Submitter; Presenter

Name: Wanda L Finch

Organization: DCoE/DHCC

Role(s): Non-presenting contributor

Name: Monique Worrell

Organization: Defense Centers of Excellence

Role(s):

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Real Warriors Campaign, launched in 2009, is a multimedia public awareness campaign designed to encourage service members and veterans coping with invisible wounds to reach out for appropriate care or support. Sponsored by the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, the campaign successfully utilizes stakeholder analysis, social marketing theories, and integrated digital strategy, and a network of local, national, and international partners to engage service members, veterans, and families.

The presentation will address the important role of health professionals in supporting the transition and adjustment of service members during any deployment phase. In addition, the presentation will highlight best practices for using digital platforms to engage with military audiences to encourage help-seeking behaviors and use of psychological health resources.

Learning Objectives

1. Learn best practices for developing a digital strategy (i.e., social media, interactive website, mobile site, and application) to communicate the positive aspects of seeking treatment for psychological health concerns within military culture to a constantly mobile, transitioning community of stakeholders.
2. Understand the benefits of using social media channels and other digital platforms to educate audiences on psychological health tools and resources available to service members, veterans and military families.
3. Recognize the importance and role of health professionals in supporting service members with psychological health concerns, and describe digital partnership efforts, resources and health communications strategies that resonate with military audiences.

List of Participants and Their Roles in the Abstract

Name: Marina Khusid

Organization: Deployment Health Clinical Center, DCoE

Role(s): Submitter; Presenter

Name: Meena Vythilingam

Organization: Deployment Health Clinical Center

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Prevalence of deployment related mental health conditions is high. Sixty two percent of Service members with history of deployment have at least one mental health condition, and 49% of these receive two or more distinct psychiatric diagnoses. Traditional approaches to the treatment of these conditions are limited by modest response rates, adverse effects, poor compliance and polypharmacy. The chronic, debilitating and complex nature of traumatic stress related mental health conditions results in high long-term personal and societal costs, which in turn makes the development of cost-effective self-management modalities of great public health importance.

Mindfulness meditation is safe, affordable, and easy to learn self-management approach. An increasing body of evidence supports the use of mindfulness meditation as an adjunct to standard care for common mental health conditions in Service members and Veterans. This presentation will discuss clinical studies evaluating the efficacy of mindfulness meditation interventions for the management of depression, posttraumatic stress disorder, substance use disorder, tobacco use disorder, anxiety, sleep disturbance, and chronic pain.

Neurobiological research elucidating the mechanism of action of mindfulness meditation will be presented. We will also offer an interpretation of research findings from the perspective of clinical recommendations, regarding the use of meditation as a self-care adjunct in management of common mental health conditions in Service members and Veterans. Recent research trends will be discussed and future directions suggested.

Learning Objectives

1. Interpret current research evidence related to efficacy and safety of mindfulness meditation for mental health conditions
2. Understand neurobiological mechanisms of action of mindfulness meditation
3. List clinical indications for mindfulness meditation use as self-care in promoting psychological health

List of Participants and Their Roles in the Abstract

Name: Marina Khusid

Organization: Deployment Health Clinical Center, DCoE

Role(s): Submitter; Presenter

Name: Monique Worrell

Organization: Defense Centers of Excellence

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Several recent systematic reviews suggest that exercise is effective in management of major depressive disorder (MDD). The clinical practice guidelines by the American Psychiatric Association and the Veterans Affairs and Department of Defense recommend exercise as either adjunct or primary treatment for various patient populations and clinical presentations of MDD. Clinical guidance is lacking, however, regarding exercise type, duration and frequency that is optimal for depression management.

This session will address: (1) exercise benefits and mechanisms of action for improving psychological health, (2) comparative effectiveness of exercise to psychotherapy and pharmacotherapy, (3) specific indications for exercise use as monotherapy or adjunctively for various degrees of MDD severity and recurrence, (4) dosing and safety considerations. Additionally, aerobic exercise and resistance training effects on depressive symptoms will be compared, as well as exercise benefits for conditions commonly co-occurring with depression, such as chronic pain, or another psychiatric illness. Specific considerations in management of children, adolescents, pregnant and lactating women, and elderly will be discussed.

Learning Objectives

1. Describe mechanisms of action and therapeutic effects of exercise on psychological health. These include beneficial biologic responses, such as increase in endorphins and brain circulation, and psychological and clinical effects like improvement in positive affect, sleep and quality of life, and reduction in negative emotions, fatigue, and chronic pain.
2. Understand current empirical evidence regarding specific indications for monotherapy and adjunctive use of exercise in patients with mild, moderate, and severe MDD, and the role of physical activity in relapse prevention and disorder progression.
3. Identify safety, adherence, adverse effects, and acceptability of exercise as self-management strategy for depression.

List of Participants and Their Roles in the Abstract

Name: Amanda Edwards-Stewart  
Organization: National Center for Telehealth and Technology  
Role(s): Submitter; Presenter

Name: Julie Kinn  
Organization: National Center of Telehealth and Technology  
Role(s): Non-presenting contributor

Name: David Cooper  
Organization: National Center for Telehealth and Technology  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

According to the latest Pew Internet Project report, as of January 2014, 85% of American adults used the internet, 90% had a cell phone, 58% had a smartphone, 32% owned an e-reader, and 42% owned a tablet computer<sup>1</sup>. High-tech adopters, especially over-the-horizon technology adopters, tend to be young in age and male. A large percent of Service Members (SMs) fit this demographic and their technology use has been found to be largely equivalent with that of civilian consumers<sup>2</sup>. This same group however, tends to be low in terms of seeking out mental health treatment despite equivalence with civilian rates of emotional disturbances. As seeking mental health service in the military is still stigmatized, various organizations in the military are attempting to address this by merging over-the-horizon technologies with healthcare self-help solutions. The hope is that SMs who do not seek out mental health treatment due to stigma might be more comfortable using self-help technology solutions that use innovative technology. The technologies we will be discussing include geo-fencing in mobile devices to help support substance abuse problems, big data solutions for health information to identify trends, using video gaming engines to build a virtual environment to support weight loss, as well as using near field communication to help patients quickly transfer mental health information to their providers via their mobile phones. We will also discuss the applications and challenges of using these technologies in a clinical setting.

Learning Objectives

1. To discuss the relationship between Service Member demographics and their technology adaption and use.
2. To communicate various high-tech advances in mental health, self-help solutions.
3. Help participants learn about new and anticipated technologies and how they will impact clinical practice.

List of Participants and Their Roles in the Abstract

Name: Amanda Edwards-Stewart  
Organization: National Center for Telehealth and Technology  
Role(s): Submitter; Presenter

Name: Julie Kinn  
Organization: National Center of Telehealth and Technology  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Background: Smartphone tools are found in almost every facet of medicine. Surveys from nearly 1400 physicians showed that 75 percent use their smartphone to research medications at least once a week. In a 2013 poll of physicians, 93 percent believe that mobile health apps could improve a patient's health outcome and 89 percent are likely to recommend a mobile health app to a patient<sup>1</sup>. Military healthcare providers, however, often work under significant regulatory restrictions with their technology use because of security concerns and other military-specific issues. Furthermore, while we know civilian medical provider technology use statistics, no literature exists identifying military provider's technology use.

Method: The present study investigates military behavioral health provider's use of technology. Forty-five providers between the ages of 26 to 68 were interviewed. Sixty-two percent were female; 50 percent were G.S. Civilians with 14.6 percent Active Duty. Forty-three percent had a Ph.D. or equivalent and 46 percent had a master's degree.

Results: Fifty-four percent of providers own personal smart phones but only 6 percent report using these phones in practice. Of those who use smartphones in practice, 67 percent use mobile apps that accompany empirically supported manualized treatments, such as PE Coach for Prolonged Exposure in the treatment of posttraumatic stress disorder.

Conclusion: Military provider's technology use, in the support of treatment, is limited. Several mobile applications exist to support gold standard treatments such as Prolonged Exposure. Education and training efforts should be made to increase use of such technologies among DoD and VA providers.

Learning Objectives

1. To understand the percent of military providers current use of smart phones in practice.
2. To recognize the utility of using mobile applications that support gold standard treatments in clinical practice.
3. To encourage education and training efforts of technology use in practice among DoD and VA providers.

List of Participants and Their Roles in the Abstract

Name: Amanda Edwards-Stewart  
Organization: National Center for Telehealth and Technology  
Role(s): Submitter; Non-presenting contributor

Name: Julie Kinn  
Organization: National Center of Telehealth and Technology  
Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background: Service Member technology use has been found to be similar to that of their civilian, demographic matched, counterparts. According to the latest Pews Internet Project, ages 18-29 have the highest rates of smart phone ownership<sup>1</sup>. Further, veterans have been found to have low rates of seeking psychological help.

Method: One thousand and one Army Active Duty Service Members (SMs) were interviewed regarding their technology use and opinions of various mobile applications that support mental health. Seventy-four percent were ages 18-30; 71.5 percent were E3-E5, 75.9 percent were male, and 82.2 percent owned a smart phone. Participants were asked three questions on their intent to use various mental health mobile applications created by the National Center for Telehealth and Technology (T2); (1). How much the app applied to them, (2). If they would use it, (3). If they would recommend it. All questions were rated from 1 (did not apply to them, would not use and recommend) to 5 (did apply to them, would definitely use and recommend).

Results: Breathe2Relax earned a mean score of 2.5 on the first question, 2.6 on the second, and 3.3 on the third. T2Mood Tracker earned a mean score of 2.3, 2.3 and 2.9. Life Armor earned a 3.8, 3.9, and 4.5 where PTSD Coach earned a 2.6, 2.9 and no data was available on the mean score for the third question.

Conclusion: SMs reported comfort recommending such mobile applications but did not feel the content of these apps applied to them.

Learning Objectives

1. To understand rates of SM technology use.
2. Discuss SMs reported preference for mobile apps created to support mental health.
3. To discuss how preference and use patterns relate to the stigma of seeking mental health treatment.

List of Participants and Their Roles in the Abstract

Name: Justin Curry

Organization: DCoE

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

In recent years, the Military Health System (MHS) has focussed increasing attention on the measurement of clinical outcomes associated with mental health programming. As one of the country's preeminent healthcare systems, the MHS has a vested interest in ensuring the efficacy and effectiveness of mental health initiatives that seek to reduce disease burden related to psychological health conditions and to improve the lives and well-being of MHS beneficiaries. While outcome measurement is a clear priority for the enterprise, the practice of symptom monitoring is also a valuable clinical intervention in its own right and can usefully inform therapeutic interventions. Collecting periodic outcome data from and sharing such data with patients increases the transparency of treatment planning and can engage patients as more active participants in their own recovery. This presentation will address current policies surrounding mental health outcome measurement across the MHS and will discuss lessons learned and best practices from programs that have placed significant impact on clinical outcome measurement. Future directions and recommendations for policy and practice will also be discussed.

Learning Objectives

1. ...describe the clinical benefits of routine mental health outcome measurement practice
2. ...identify lessons learned from existing mental health programs related to outcome measurement
3. ...explain existing Health Affairs policies surrounding mental health outcome measurement

List of Participants and Their Roles in the Abstract

Name: Sarah J Arnold

Organization: Deployment Health Clinical Center

Role(s): Submitter; Presenter

Name: Nicholas Polizzi

Organization: DoD Deployment Health Clinical Center

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Nearly 20% of deployed service members screen positive for a mental disorder. Of these, 38-40% report a need for help, and less than 25% receive help from a mental health professional, partly due to stigma (Hoge et al, NEJM, 2004). Multiple large studies show that collaborative primary care programs (i.e., *Re-Engineering Systems of Primary Care Treatment of Depression*, Dietrick et al, BMJ, 2004) are more effective than usual primary care. The Military Healthcare System is implementing a blend of two models of integrated, collaborative care: the Care Management Model, where facilitators call patients who screen positive for anxiety disorders and depression to facilitate treatment plans while providing continuity and feedback to the primary care providers, and the Primary Care Behavioral Health Model in which psychologists and social workers provide solution-focused brief interventions to help patients with symptom reduction of behavioral health and chronic medical problems. Behavioral health personnel are full-time PCMH team members who assist with screening, assessment and behavioral health intervention appropriate for primary care. Services address the continuum of health behavior change including weight management and smoking cessation, as well as behavioral health services for problems like depression and anxiety disorders. Participants will learn the importance of screening for behavioral health problems, recognize unmet needs and the stigma associated with behavioral health problems, and understand the cost-savings and population health impact of integrating behavioral health services into primary care.

Learning Objectives

1. Participants will learn the importance of screening for behavioral health problems
2. Participants will recognize the unmet needs and stigma associated with behavioral health problems
3. Participants will understand the cost-savings and population health impact of integrating behavioral health services in primary care

List of Participants and Their Roles in the Abstract

Name: Jacobine Janse

Organization: Royal Netherlands Airforce

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The mission deployments for The Netherlands Ministry of Defense are more intense, frequent and global than they ever were. For that reason there is a growing need for an aeromedical evacuation (AE) capability to guarantee a reliable medical chain of transport. In the recent years the Royal Netherlands Air Force (RNLAF) has put a lot of effort in AE training of their medical staff. As a result the RNLAF has a pool of highly qualified AE personnel available. Despite all these training-effort, sporadic an actual AE request came in. Until recently.

With this request, we get the chance to put into practice what we are trained for. But along the way of preparing the missions, it seems to take more than only well trained personnel and suitable equipment. Unexpected matters do come up and trigger to think further ahead. Where does the AE crew meet 'the rest of the military world'? All this invites to take a closer look at the interfaces of AE with other commands, but also with international military or civil partners.

For the medical staff of the RNLAF this is a perfect moment to explore the challenges and opportunities in AE. Especially in the connections we have to make with all the other players in theatre. It may trigger us to 'think out the box'. For this reason the RNLAF medical staff created a special program for the upcoming year to explore these aspects in AE.

Learning Objectives

1. The participant can describe the recent changes according to aeromedical evacuation at the RNLAF
2. The participant can identify at least two interfaces of aeromedical evacuation within the military medical chain of transfer
3. The participant can describe at least two scenarios which need a different approach of aeromedical evacuation

List of Participants and Their Roles in the Abstract

Name: Tom B. Ellis

Organization: Federal Bureau of Prisons

Role(s): Presenter

Name: George A. Durgin

Organization: Federal Bureau of Prisons

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Federal Drug Free Workplace Program (DFWP) since Executive Order 12564 was issued by President Ronald Regan on September 15, 1986, has sustained over that time and evolved as necessary to support worker safety and employee assistance to include the passage of the Drug Free Workplace Act of 1988 (41 USC 8106). The Substance Abuse and Mental Health Services' Division of Workplace Programs is mandated by Executive Order and Public Law to provide oversight for: (1) the Federal Drug-Free Workplace Program aimed at elimination of illicit drug use in the Federal workforce; and (2) the National Laboratory Certification Program (NLCP), which certifies laboratories to conduct forensic drug testing for the Federal agencies and for some federally-regulated industries. The continued durability of DFWP will hinge on the successful buy-in from employees, supervisors, management, and bargaining unit representatives.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Selim KILIC  
Organization: Turkish Armed Forces  
Role(s): Submitter; Presenter

Name: Necmettin KOCAK  
Organization: Gulhane Military Medical Academy  
Role(s): Non-presenting contributor

Name: Hakan Istanbuluoglu  
Organization: Turkish Armed Forces  
Role(s): Non-presenting contributor

Name: Turker Turker  
Organization: GATA  
Role(s): Non-presenting contributor  
Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Objective: Disability is a particularly important issue for military services, affecting the numbers of active and reserve personnel. The aim of this study was determine the reasons for unfitness for military service among recruits at Turkish Armed Forces between 2008 and 2010.

Materials and Methods: This cross-sectional study was conducted between December 2010 and May 2012 after reviewing the health reports belonging to 40717 recruits who are concluded with decree B and D after being taken into Health Board in order to finalize their proceedings upon various diagnoses in 41 Military Hospital between 2008 and 2010 in Turkish Armed Forces. The study has been initiated after getting necessary ethical permissions from Ethics Committee of Gulhane Military Medical School.

Results: The first three most involved clinics were psychiatry with 21.7%, ophthalmology with 13.7%, and internal medicine with 10.9%. The most common three diagnoses were antisocial personality disorder with 11.2%, sensorineural hearing loss with 6.3%, and obesity with 5.2%, respectively. The recruits from eastern Anatolia have the biggest proportion among all study group with respect to the decision B and D.

Conclusion: It was also realized in this study that the accuracy and completeness of data was very important. In our opinion, the administrators who are in the position of policy making may use these findings to improve for both the quality and accessibility to healthcare services.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Jan Stroeker

Organization: Fachsanitätszentrum Kiel

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

During the last two decades, the German Bundeswehr has developed from an army just established to defend the country's frontiers towards an army for global operations.

Worldwide possible applications and scenarios have gained importance and impact becoming much more likely and realistic during the last years.

The consequent structural change in the German armed forces has brought far-reaching consequences especially for the Medical Service of the Bundeswehr and thus also for dentistry as its integral part, too.

The current requirements on dentistry (training of personnel, material equipment, logistical challenges) in the Armed Forces are presented and discussed referring to examples from the Bundeswehr's operations in accordance to the humanitarian aid.

Learning Objectives

1. Description of the Medical Service of the German Armed Forces
2. Explanation of dentistry in the Medical Corps of the German Armed Forces
3. Examples of clinical cases from operations and humanitarian aid
4. Lessons learned from the military operations and humanitarian assistance for the training and equipment of the dental staff

List of Participants and Their Roles in the Abstract

Name: Courtney Rudiger

Organization: Navy and Marine Corps Public Health Center

Role(s): Submitter; Non-presenting contributor

Name: Asha Riegodedios

Organization: Navy and Marine Corps Public Health Center

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Pneumonia is a historical concern for United States military personnel, particularly those in training or shipboard environments. Both vaccine and non-vaccine prevention strategies are used to control specific etiologies that may lead to pneumonia in military populations. The use of a vaccine for pneumococcal pneumonia prevention, specifically, has long been a topic of debate in military medicine. Current Navy policy does not recommend routine pneumococcal vaccination of active duty personnel; however, some military installations do routinely administer this vaccine. A double-blind placebo controlled study in recruit environments conducted from October 2000 to June 2003 concluded that the use of pneumococcal vaccine in the training environment was unwarranted, and the burden of disease caused by *Streptococcus pneumoniae* was almost zero. However, recent outbreaks have suggested a potential shift in the epidemiology of pneumonia in training centers, particularly advanced training environments, where *S. pneumoniae* may be implicated as the causative agent in recent pneumonia outbreaks.

This presentation will describe current pneumonia prevention control strategies and pneumonia disease burden at Navy and Marine Corps basic and advanced training centers. Evidence for and against pneumococcal vaccination will be explored to provide insight into whether recommendations for pneumococcal vaccination should be revisited.

Learning Objectives

1. Describe pneumonia burden in military populations.
2. Describe the history of pneumococcal vaccination in military populations.
3. Discuss whether routine pneumococcal vaccination in military training populations is warranted based on current evidence.

List of Participants and Their Roles in the Abstract

Name: Stephen G Waller

Organization: USUHS

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Since its inception in the 1990's, the Global Burden of Disease report has been an objective resource for epidemiologists, health policymakers, and mental health professionals to understand the costs of mental disorders around the world. The tools used by the scientists to assemble the materials have been continually refined, and the quality of data has become more valid and reliable. Much progress remains to be made, but powerful insights are evident in its reading. The speaker has been a volunteer consultant for the Global Burden of Disease Group at the Institute for Health Metrics and Evaluation at the University of Washington, and will speak to its efforts in measuring the impact of mental health issues in a globalizing world. He will further discuss the future of the Global Burden of Disease report as leverage to obtain visibility and resources for increasingly-evident gaps in mental healthcare, both in the Military Health System and in allied countries around the world.

Learning Objectives

1. Define the Global Burden of Disease and the methods by which it is produced
2. Explain the current and predicted future burden of mental disorders around the world
3. Recognize the challenges of cultural effects on accurate mental health diagnoses

List of Participants and Their Roles in the Abstract

Name: Stephen G Waller

Organization: USUHS

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Department of Defense (DoD) has a rich history of humanitarian intervention, dating to the Lewis and Clark Expedition's efforts in the early 19th century. Recently, an analysis by the Kaiser Family Foundation reported that DoD spent more than \$500 million in a single fiscal year on global health activities. In spite of multiple GAO recommendations over many decades, the establishment of a modern monitoring and evaluation (M&E) program for these efforts remains a work in progress. The non-governmental humanitarian community has changed their M&E paradigm in recent decades, and reported lessons learned, some of which are applicable to DoD. The presenter, an experienced humanitarian healthcare provider and professor of global health at USUHS, will offer some analysis of past and current efforts and future opportunities for a robust M&E program in DoD humanitarian and global health operations. He will present compelling evidence that an effective program could be established in the current fiscal year without supplemental personnel or budget resources, and yield an immediate return on investment in improved mission effectiveness and in dollars saved.

Learning Objectives

1. Describe the history of DoD efforts in monitoring and evaluation (M&E) of humanitarian and global health activities
2. Recognize the lessons learned from non-governmental organization M&E efforts that are applicable to DoD programs
3. Identify opportunities and methods for DoD to improve the quality of global health interventions through M&E

## *EVALUATION OF HEARING PROTECTION FIT TESTING SYSTEM*

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### List of Participants and Their Roles in the Abstract

Name: QUINTIN HECHT

Organization: U.S. AIR FORCE School of Aerospace Medicine

Role(s): Submitter; Presenter

Name: Elizabeth McKenna

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Effectiveness of earplugs has long been determined by the noise reduction rating and how often the earplugs are used, but there is limited documentation of use or quality of fit. The specific aim of this study is to evaluate the performance, effectiveness, and long-term training benefits of a formal hearing protection fit testing program by utilizing an earplug fit-check testing system (a device that provides a personal attenuation rating, unique to each earplug and ear for an individual). This system produces a more objective measure of earplug fit than the traditional visual check.

The study consists of 200 members at 2 Air Force locations, a combination of uniformed and civilian Air Force personnel, male and female, who are on the Hearing Conservation Program. Subjects have been randomized into a control group and an experimental group, and blinded to their group allocation. This study consists of an initial and follow-up phase. During the initial phase, the experimental group undergoes measurement of proper fit testing with the "Fit-Check Solo" earplug fit-check test system as well as education on proper fit testing. In comparison, the control group's initial phase only consists of education. Preliminary data has shown 50% of the experimental group subjects tested failed their initial fit-check, while 100% passed after being trained with the device and re-tested. This information and training will be used as an education tool to improve workers' ability to properly fit their earplugs, which should mitigate hearing loss and tinnitus due to occupational noise exposure.

Learning Objectives

1. As a result of this activity, the participant will be able to explain what a personal attenuation rating is and how it can impact proper fit-testing of individual hearing protection.
2. As a result of this activity, the participant will learn the methods of incorporating a fit-check test device into a hearing conservation program.
3. As a result of this activity, the participant will be able to describe the joint benefits that earplug fit-check testing and education can have on a hearing conservation program and its members.

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Serving apparently to different causes military profession and medicine have always been in interaction during the history. Military profession always carries the potential of threatening the human life and health whereas medicine aims the protection of human life and health. Yet the word “Military Physician” has a dilemma within itself.

Society has the indubitable expectation of healing for sicknesses, pains and injuries from the physicians. On the contrary military profession is always open to injure or even kill an individual for the protection of the society. How can a physician who will directly serve to the human health be part of a profession which can threat or even injure human beings? In other words how can a physician be a soldier?

Both functioning in professional boundaries and complying with the ethical principles brings in many challenges for the military physician.

Questioning the priority of being a soldier or a physician is not a single-dimensional inquiry and doesn't have a simple answer for every situation. We can reach to a balanced approach after a comprehensive analysis of each case.

We hope that our study will shade some light on to this dilemma and some possible solutions based on sample cases.

Learning Objectives

1. explain the difficulties of a health professionals in a military mission
2. recognize the ethical responsibilities of a physician also in combat conditions
3. identify the dilemma that comes out of the interaction of Military and Medical Professions

*Government Contracting --Getting What You Need from Your Next Government Contract*

List of Participants and Their Roles in the Abstract

Name: Martin Boyle

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Role(s): Presenter

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Organization: Army - Baylor University Graduate Program in Health and Business Administration

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

You need office furniture, a small storage building, your clinic completely remodeled, or three nurse practitioners. First, note that the operative word is *need*, not want. Government contracting is for needs.

We will help you learn how to get what you need, when you need it, at a reasonable price. And, we will talk about the people who can help you.

Learning Objectives

1. Distinguish "want" from "need" in the world of government contracting
2. Layout your timeline
3. Explain how you will plan for your contract
4. Explain what an IGE is

List of Participants and Their Roles in the Abstract

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Name: Dana Howell  
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Organization: University of Kentucky  
Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Study design: Qualitative phenomenological. Background: Patient's perception of treatment success in acute hand therapy has been found to be multifactorial. Two subjective forms often used in hand therapy to capture these factors are the Quick Disabilities of the Arm Shoulder and Hand (QuickDASH) and the Global Rate of Change scale (GROC). However, it is not uncommon for there to be directionality incongruence between the two forms, which may indicate patient dissatisfaction with care or a lack of progress. Purpose: To describe the experiences and expectations of rehabilitation of patients who demonstrated incongruence between their QuickDASH and GROC forms, in addition to their decisions to adhere and comply with their treatment plan. Method: Participants were patients in an outpatient hand therapy clinic who demonstrated incongruence between their QuickDASH and GROC forms beyond measurement error. Semi-structured interviews were recorded and transcribed, and analyzed using Colaizzi's phenomenological method until attaining saturation. Results: From 10 participants, 151 significant statements were extracted yielding five themes: 1) Desire to return to normal, 2) Anticipation of a brief recovery, 3) Trust or mistrust of therapist impacts recovery, 4) Can't stop living because of injury or rehabilitation, 5) Feelings of ambivalence towards the recovery process. Conclusion: Interventions where patients viewed therapists as dedicated tended to improve patient adherence. Early therapist and patient agreement of what was minimally clinically important may improve patient adherence. Teamwork at three levels was essential, between: therapist and patient, therapist and staff, and therapist liaising with the healthcare system.

Learning Objectives

1. The learner will describe the difference between patient adherence and patient compliance
2. The learner will identify key factors of patient adherence in acute hand therapy rehabilitation
3. The learner will recognize how the meaning of what is clinically significant may vary between the patient and the clinician

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

**INTRODUCTION:** Prediction of blood transfusion for trauma patients in near real-time is an unrealized goal. We hypothesized that automated analysis of vast quantities of vital sign data routinely monitored could accurately predict the need for blood transfusion and that input from multiple sources would improve accuracy over single monitor input.

**METHODS:** Continuous vital sign data from pulseoximetry and electrocardiography (ECG) waveforms and non-invasive blood pressure (BP) monitors were recorded for direct-admit trauma patients with abnormal pre-hospital shock index (heart rate/systolic blood pressure) $\geq$ 0.62. Predictions of blood transfusion in the first 3 hours were compared using Delong's method for area under receiver operating characteristic (AUROC) curves to determine the accuracy of prediction for each monitoring device and combinations of monitoring sources in multivariate logistic regression models.

**RESULTS:** We enrolled 1191 patients; 339 were excluded due to incomplete data; 40 received blood within 3 hours. Blood use in the first 15 minutes was not included to allow time for data collection. Pulseoximetry waveform analysis alone predicted transfusion within 3 hours with AUROC=0.86; ECG waveform analysis=0.96, noninvasive BP trends=0.91. Analysis of all three input sources predicted transfusion with AUROC=0.96.

**CONCLUSION:** Blood transfusion can be accurately predicted using automated analysis of data from any single vital sign monitor, however when data from all three sources is available, the accuracy and reliability is further increased. Prediction of transfusion may allow rapid recognition of hemorrhagic shock and improved triage. The capability to predict transfusion from various input sources creates a reliable and redundant capability for forward deployment.

Learning Objectives

1. The participant will recognize the relation of predicting transfusion to identification of active hemorrhage.

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Role(s): Non-presenting contributor

Name: Raymond Fang

Organization: USAF C-STARS Baltimore

Role(s): Non-presenting contributor

Name: Colin Mackenzie

Organization: STAR, University of Maryland

School of Medicine

Role(s): Non-presenting contributor

2. The participant will interpret three separate blood transfusion prediction analyses using individual vital sign monitors.
3. The participants will discuss the role of decision assist monitoring software during the initial triage and resuscitation of traumatically injured patients.

List of Participants and Their Roles in the Abstract

Name: MG Malfi Mubarrak Al-Otaibi, MD,

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Organization: AFCENT/SG

Role(s): Submitter; Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Hajj ritual dates back to the seventh century. As a result, the Kingdom of Saudi Arabia (KSA) has accumulated centuries of experience in planning for the health care of over 2 million visitors. According to the World Health Organization (WHO) a total of 372,000 persons needed health care during the hajj season in 2013. In preparation for the hajj, KSA's Ministry of Health prepared 25 hospitals and 141 health centers for the pilgrims who were expected to make the journey. An emergency hospital that operates only during the hajj season opened in Mina. The Ministry also prepared 95 ambulances as mobile intensive care units, each having a doctor and a nurse. The ambulances are equipped with the latest technology and are able to work in crowded areas. In an effort to take preventative health measures, the Ministry intensified its educational and awareness efforts and adopted a free telephone number for pilgrims to call in the event of a medical problem. This presentation will discuss planning factors associated and challenges associated with providing effective health care during the hajj and current public health threats.

Learning Objectives

1. Medical planning factors for major global event
2. Major obstacles and medical resources needed for major global event
3. List the current global health threats to visitors to the Hajj

List of Participants and Their Roles in the Abstract

Name: Karin Waugh Zucker

Organization: Army - Baylor University Graduate Program in Health and Business Administration

Role(s): Submitter; Presenter

Name: Martin Boyle

Organization: Army-Baylor

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Does the topic of medical ethics sound interesting, but you do not know where to start? Are you going to be on the Ethics Committee? Let's be practical, do you need continuing education hours in ethics? This is the class for you.

After a *very brief* introduction to ethics and ethical theory, we will address the primary methods of ethical decision-making in healthcare, concentrating on the most frequently used --principlism. We will address the four most accepted ethical principles (autonomy, beneficence, nonmaleficence, and justice), the rule of double effect, determination of capacity, and surrogate decision-making. We will also teach the Army-Baylor 7-Step Model for Clinical, Ethical Decision-Making, and we will leave you with a "Smart Sheet," summarizing all this.

Learning Objectives

1. distinguish clinical ethics from organizational ethics
2. define the four primary principles of medical ethics
3. outline a decision-making model for clinical ethics

List of Participants and Their Roles in the Abstract

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Organization: Army-Baylor

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Do you know the basics of medical ethics? Are you comfortable addressing clinical-ethical concerns using the four basic principles of medical ethics: respect for autonomy, beneficence, nonmaleficence, and justice? Does the topic of organizational, medical ethics sound interesting, but you do not know where to start? Are you an administrator who has identified a need to know more about organizational ethics or are you a provider who believes he or she would benefit by knowing how medical administrators think about ethics? If so, this is the class for you.

After a *very brief* review of clinical ethics (Beauchamp and Childress, *Principles of Bioethics*), we will show you why the four, primary principles of medical ethics do not work in the organizational/business situation. We will teach two models that do work: Leonard Weber's Model and the Army-Baylor 7-Step Model Modified for Organizational, Ethical Decision-Making.

Then, we will turn to the subject itself: when should employees be treated equally and when differently; how should resource allocation decisions be made; how should organizational policies be determined; what is enough transparency, what is too much; when should an exception be made for a particular patient's care; should a patient be able to choose or reject a provider based on color or gender?

Learning Objectives

1. define organizational ethics
2. distinguish organizational ethics from clinical ethics
3. explain a model for use in organizational ethics
4. identify 5 problem areas in organizational ethics

List of Participants and Their Roles in the Abstract

Name: Wanda Lynn Edwards

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

AMSUS ABSTRACT

**Demographics:** Of the 14,365 enrolled to the Hickam Air Force Base (HAFB) outpatient clinic, 152 diagnosed with Diabetes with 65 of those followed closely by the Disease Management Department.

**Clinical Course:** The data covers a 15-month time period and explains how improved self-management Diabetes education, increased interventions and close one-on-one support can positively decrease A1C values and enhance the medical, physical and mental well-being of Diabetic patients.

**Unique Characteristics:** Active Duty and Active Duty Flyers.

**Treatment/Intervention:** All patients were given individual sessions and then an annual, multi-disciplined group Diabetic self-management class. Class speakers involved most clinics such as Dental and Optometry. Topics included healthy eating, diabetic foot care, oral health, effects of uncontrolled blood sugars on the complete body. Continued follow up consisted of monthly telephone calls to ensure compliance with patient-set goals and patient support.

**Results/Outcomes:** A1C reductions maintained over 15-months. Marked improvement in all Diabetic Health Care Effectiveness Data and Information Set "HEDIS" metrics. Second highest Diabetic population in Pacific Air Forces "PACAF" and ranked #2/9 for PACAF Diabetic metrics.

**Clinical Significance:** Decreased A1C values maintained with continued follow up.

**Major Themes:** Demonstrate the effectiveness of group and family support systems in the overall success of the diabetic patient. Diabetic HEDIS metrics ranked #1 in 7/11 Major Air Force Commands (MAJCOMS).

**Expanded version of learning objectives:** Describe to team members how to positively impact the care of the diabetic patient. Discuss success on Diabetic HEDIS metrics. Convert the unmotivated patient.

**Learning Objectives**

1. Describe how to positively impact the care of the diabetic patient
2. Explain success on Diabetic HEDIS metrics
3. Convert the unmotivated patient

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Can military healthcare providers be sued for malpractice? Can they be court-martialed? What if they are engaged in off-duty employment? Is it different for those in the VA? What are providers' rights and responsibility? What is the real story?

What are the Federal Tort Claims Act and the *Feres* Doctrine? Every federal healthcare provider needs to know.

Not that long ago, we were asked, "Is it true that I can't sue a military doctor now but that if he/she gets out of the military I can sue him/her then?" Where do these ideas come from?

We have been working in this area for years as trial attorneys and most recently teaching this subject in the Army-Baylor Graduate Program in Health and Business Administration and in the Interservice Physician Assistant Program. We will clear up the confusion. We will explain the Federal Tort Claims Act and the *Feres* Doctrine. We will make them understandable, and we will answer your questions.

Learning Objectives

1. name the two purposes of the Federal Tort Claims Act
2. explain the effect of the *Feres* Doctrine
3. explain the responsibilities of a federal provider when he/she is sued for negligence in the scope of his federal employment
4. explain the circumstances under which a federal provider should consider purchasing medical malpractice insurance

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

INTRODUCTION:

The Veterans Health Administration of the Department of Veterans Affairs (VHA) and the Department of Defense (DOD) operate completely independent health care systems. A Joint, integrated provision of health care for the populations served, a compellingly attractive goal given the obvious overlaps, has proven deceptively difficult to implement.

DEMOGRAPHICS:

VHA beneficiaries, DOD beneficiaries, and active-duty personnel in Northern California.

INTERVENTION:

For joint VHA/DOD programs in Northern California, we have abandoned merged structures in favor of *mutual alignment*.

OUTCOMES:

Utilizing this "mutual alignment" approach, we report a uniformly favorable 9-year experience with nine joint VA-DOD clinical programs initiated through Joint Incentive Funding (JIF) grants totaling 29.6 million dollars. A Formal JIF closeout reports at the 2-year mark are available for 5 programs and document positive return on investment (ROI) for all programs averaging 83%. ROI will be strongly positive for the others. In sustainment mode, beyond the 2 year term of the JIF grant, these programs continue to generate substantial year-on-year revenue and savings. The practical value of *aligning* care systems to extract benefit from structured, economically rational, "win-win" collaborations, as opposed to the "forced merger approach," generates relatively prompt, reliable results, to the benefit of all concerned.

CONCLUSION:

Alignment trumps merger for joint VA-DOD programs. This observation has considerable relevance as federal and non-federal systems explore future joint ventures.

Learning Objectives

1. Recognize the advantages of alignment over merger for joint programs.
2. Explain the JIF grant process.
3. Explain EMR barriers to VA/DOD clinical collaboration.

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

**Background.** The roles of pharmacy technicians have been evolving since 1966 when the American Association of Colleges of Pharmacy (AACP) and the American Society of Hospital Pharmacists (ASHP) issued a joint statement concerning organized training programs for pharmacy technician-helpers. In the past 30-40 years the roles of pharmacists have become more clinical and as a result pharmacy technicians have been taking on roles that were traditionally filled by pharmacists.

**Methods.** Retrospectively analyze the literature to identify the emerging role of pharmacy technicians. Examine the inherent risks and benefits of the expanding roles of pharmacy technicians and how they can be mitigated. Examine how the roles of pharmacy technicians are evolving at Phoenix Indian Medical Center, which are leading to changes that positively impact pharmaceutical care.

**Results.** Pharmacy technicians throughout the nation have been taking on new roles, such as, entering medication orders into pharmacy department computers to launch the dispensing process; obtaining and documenting patients' medication histories; managing pharmacy-run clinic databases; verifying coding for billing; managing medication ordering techniques; establishing par levels for various departments contributing to cost savings; entering data for pharmacy-run clinics to record the patient care outcomes important for monitoring and improving care; and other duties.

**Conclusions.** The roles of pharmacy technicians are expanding, leading to better support in pharmacy- run clinic settings. Not only are they able to provide better pharmaceutical assistance, but they also derive more job satisfaction by taking on new challenges. In order for this to work, national policies, practices, and priorities must be aligned.

**Learning Objectives**

1. Identify the new and innovative ways that pharmacy technicians are assisting pharmacists.
2. List hypothetical and actual risks and benefits associated with the expanding role of pharmacy technicians.
3. Recognize innovative ways that could contribute to current pharmaceutical health policy and practices.

List of Participants and Their Roles in the Abstract

Name: Mai Phung T  
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Name: Hung Ngo M  
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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Nurses play a major role in the health area and are the largest health care workforce in Vietnam. In the military medical system, nurses are still considered as a doctor's assistance and having limited access to CME or in management/leadership level. Under PEPFAR, U.S. Military collaborates closely with Vietnam Military to promote nursing role to meet military and national needs.

With support of DoD PEPFAR through VNA, the nursing development program has been implemented effectively in the military medical system. Activities are included: establish the military nursing TWG; conduct meeting for high ranking level and workshop/training/conference for nurses; provide TA and implement pilot model of comprehensive nursing care for HIV and other infectious diseases patients.

By 09/13, the TWG has been established and maintained by MoD/MMD to provide recommendation/TA to all military nursing policies/guidance; 70 military leaders had been updated with national nursing policies/guideline; 65 head/chief nurses were trained on nursing leadership and management; the first nursing research conference was conducted in 08/13 on the situation, experiences/best practices of nursing development among military and with civilian nurses. Lessons learned from the piloted model at 5 sites has been reported and used by MoD/MMD for future expansion.

Military nurse's reputation have been gradually gained through their work on research, training, application/development of best practice models and promoting relationship of mil-mil and mil-cil. Based on its positive results, the nursing program is selected as one of the military medical priorities in 2014 and beyond.

Learning Objectives

1. To describe the nursing program in Vietnam (in both national and the military health systems)
2. To introduce the collaboration between Vietnam and U.S. militaries on nursing program supported by DoD PEPFAR
3. To share experiences and lessons learned on promoting nursing role

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Introduction: Sub Saharan Africa bears the brunt of the AIDS pandemic. Numerous studies estimated an average HIV prevalence of over 6% among military personnel. The HIV sentinel surveys indicate that the seroprevalence rate varies by region from 3.1 to 15%. Although prevalence and AIDS-related mortality began to decline in Sub Saharan Africa, sentinel data shows that HIV prevalence is on the rise among uniformed services.

Purpose: To highlight the impact of HIV in the military to the general population, the importance of integrating prevention with military environment into comprehensive clinical care HIV/AIDS, to establish the minimum standard package of services and to explore ways to implement this package.

Methods: The methodology evaluates existing programs through extensive literature review. Presenter will present an overview of the impact of HIV in the military and how to effectively manage the problem. The presentation will be followed by discussion concluding with recommendations for strengthening and increasing capacity to deal with HIV/AIDS prevention and care among uniformed services.

Discussion/conclusion: HIV/AIDS is one of the leading causes of death on the continent and has been identified "the greatest threat to development, stability, and security". The rate of infection in some African security forces is believed to be high, raising concerns that those forces being unable to deploy when needed and co-infection through interaction with civilian population, spouses, and especially individuals in sex trade. Outcome of presentation would initiate discussion around issues of HIV/AIDS prevention, care, and managing the impact of HIV on the African military.

Learning Objectives

1. To understand the risk factors, surveillance, epidemics of HIV, and effects of HIV & AIDS in the African military
2. To provide a forum for thinking through strategies to achieve HIV/AIDS prevention, prevention of sexual transmission of HIV
3. To explore opportunities to mitigation of the impact of the disease, capacity building for program sustainability, share African military experience with HIV/AIDS prevention activities

List of Participants and Their Roles in the Abstract

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Name: Levent Karaardıç  
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Name: Tayfun KIR  
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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

The aim of this study was to determine the main points of high priority in tobacco control and to evaluate the smoking prevalence, attitudes and behaviours among Gülhane Military Medical Academy (GMMA) students. It was tried to reach the entire universe but the participation rate were 90.3% (1.215) for the students (1.345). Questionnaire form, which were applied for students in Feb to May, 2013, were prepared taking into consideration the literature and research purposes. The smoking prevalence among students was 15.9% (19.8% for men, 7.4% for women). There were statistically significant differences between genders ( $p < 0.001$ ), and the schools ( $p < 0.001$ ) among students in terms of smoking. According to the Fagerström Test for Nicotine Dependence scores; The prevalence of high and very high level of nicotine addiction among students (22.1%). It's extremely important that healthcare workers who have critical roles on fighting with the smoking outbreak existing in seriously high level in both our country and all over the world should be a role model in the community not only having lessons that contains how to give up smoking during their education and serving with high ability in this subject but also being a model by reducing / terminating smoking in their own lives. At this point, it will be correct to completely carry out the laws numbered 4207 and 5727, MPOWER principles prepared on the way of WHO and Framework Convention on Tobacco Control and Turkish Armed Forces Struggle and Control Plan of Tobacco and Its Products.

Learning Objectives

*“UPDATE: THE ARMY SELECTED RESERVE DENTAL READINESS SYSTEM (ASDRS): OVERVIEW, ASSESSMENT, AND RECOMMENDATIONS”*

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List of Participants and Their Roles in the Abstract

Name: James Ray Honey

Organization: U.S. Army Reserve Command

Army Reserve Surgeon Office

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Army Selected Reserve Dental Readiness System (ASDRS) is a key dental program directed by the Assistant Secretary of the Army (Manpower & Reserve Affairs) starting in Fiscal Year (FY) 09. The Army National Guard and Army Reserve have steadily implemented ASDRS over the past three years as a means to improve the historically abysmal Dental Readiness of the Army Reserve Component (RC); Dental Readiness is essential for sustaining an Army RC Operational Force. ASDRS is a tool for RC commanders to provide contract Dental Readiness care in support of over 558 thousand non-mobilized Selected Reserve Citizen-Soldiers dispersed throughout the 54 states and U.S. territories, at home station before alert, and if necessary after alert (throughout the Army Force Generation cycle). This presentation examines the status of ASDRS implementation, assesses its effectiveness in improving Army RC Dental Readiness, and provides recommendations regarding the following focus areas: 1) Command emphasis; 2) Program execution; and 3) Synergy with the Military Health System (MHS) and Department of Veterans Affairs (DVA).

Learning Objectives

1. Discuss the status of the Army Selected Reserve Dental Readiness System (ASDRS) implementation.
2. Assess the effectiveness of ASDRS in improving Army RC Dental Readiness.
3. Discuss recommendations for improving ASDRS implementation.

## List of Participants and Their Roles in the Abstract

Name: Roger Erich

Organization: USAF School of Aerospace Medicine

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Preparing data for medical research can be a challenging, detail-oriented, and time-consuming task. This process can account for the majority of time spent answering a given research question. There may be challenges with transcription errors, missing data, or records not applicable to the population under study. In addition, the study data may be housed in two or more separate databases; attempting to link information from multiple databases for a unique individual can be difficult. De-identifying sensitive medical and location-specific information is another vital component of the data cleaning process and must also be accomplished to protect patient privacy; this is particularly challenging in large databases which contain multiple small groups that increase the potential for individual identification.

In this presentation, we discuss techniques to handle challenges with large research data preparation. Phase 1 of the Occupational and Environmental Air Force Health Study developed a database that connected approximately 33.7 million records containing 221 unique variables from six health and personnel databases consisting of 519,000 subjects from 2006 through 2010. A systematic approach was developed to link and de-identify data, plus determine whether unidentifiable or erroneous records would be retained or dropped. With the final comprehensive database, investigators will be able to continue to the analysis phase and explore the general hypothesis that environmental and occupational factors influence both health outcomes and risk taking behavior of service members in certain career fields. As a result, high-risk career fields may be identified for targeted interventions and low-risk career fields for potential protective factors.

Learning Objectives

1. Discuss techniques for rectifying concerns with research data preparation and combination of large datasets.
2. Explain methods for identification of potential problematic records and matching records between datasets to retain unique individual data as well as decision-making to have the most comprehensive dataset.
3. Recognize unusual fields for de-identification of data and remedial actions taken to protect patient identification.

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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

The objective of this research was evaluate the smoking prevalence, attitudes and behaviours among military hospital personnel in Ankara. It was tried to reach the entire universe rates were 61.8% (2,543) for the personnel. Questionnaire form, which were applied for personnel in Feb to May, 2013, were prepared taking into consideration the literature and research purposes. The prevalence of smoking was 34.9% for the personnel (35.3% for men, 34.5% women). While there was no statistically significant difference in terms of smoking by gender ( $p = 0.669$ ), there were statistically significant differences in terms of education level ( $p < 0.001$ ), occupation ( $p < 0.001$ ), and worked in the hospital section ( $p = 0.001$ ). According to the Fagerström Test for Nicotine Dependence scores; The prevalence of high and very high level of nicotine addiction among the personel (19.4%). It's extremely important that healthcare workers who have critical roles on fighting with the smoking outbreak existing in seriously high level in both our country and all over the world should be a role model in the community not only having lessons that contains how to give up smoking during their education and serving with high ability in this subject but also being a model by reducing / terminating smoking in their own lifes. At this point, it will be correct to completely carry out the laws numbered 4207 and 5727, MPOWER principles prepared on the way of WHO and Framework Convention on Tobacco Control and Turkish Armed Forces Struggle and Control Plan of Tobacco and Its Products.

Learning Objectives

List of Participants and Their Roles in the Abstract

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Summary: Despite the number numerous mental health concerns among veterans and military service members, there is a strong reluctance among many of them to seek help. In this presentation, I will examine the problem of help seeking and discuss some of its underlying dynamics. Policy makers, senior military leaders, and some mental health professionals argue that the problem is the stigma attached to mental health problems in the military. While this provides some insight into the problem, it fails to completely address it. This presentation will show that help seeking is a complicated process and that stigma is only one of the reasons that this population may avoid seeking mental health care. It will draw upon previously unpublished research with active duty military members as well as a review of large studies of military members. The presentation will conclude with a model that not only explains help seeking behavior, but provides a guide to encourage more veterans and military members to seek help. The presentation will also review the mental health problems faced by this population.

Learning Objectives

1. Compare and contrast the mental health concerns of military service members and veterans with those of the civilian population.
2. Identify the underlying dynamics of helping seeking behavior among veterans and military service members.
3. Apply the concepts of a new help seeking model in order to encourage more veterans and military service members to seek help for mental health concerns.

List of Participants and Their Roles in the Abstract

Name: Maureen F. Mintzlaff

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background: There is a lack of knowledge among healthcare providers in evidence-based practice (EBP) communication methods. Motivational Interviewing (MI) carries a spirit and intent that facilitates patient wellbeing. When used effectively, MI not only enhances therapeutic alliance, it can be a catalyst for positive health behavior change.

Methods: A comprehensive EBP MI training program that teaches health care professionals (HCPs) how to use the principles of MI to better engage with patients was provided to 165 HCPs. Target audience included Doctors, Physician Assistants, Nurse Practitioners, Pharmacists, Dentists, Psychologists, Psychiatrists, Social Workers, Dieticians, Dietary Technicians, Registered Nurses, Mental Health Technicians and Physical Therapists/Technicians. The program was both didactic and interactive with several hours allocated to practice key MI concepts/skills. Participants were asked to complete an evaluation, a pre-test/survey and a post-test/survey. An EBP tool was also utilized to rate observations (post-training) of MI integration while participants interacted with patients within the clinical settings.

Results: Understanding of MI concepts (pre-post test scores) and self-rating of MI competence before/after training significantly increased. Observation outcomes revealed that HCPs met the benchmark of four out of a 7-point scale in utilizing MI during patient encounters or role play in several categories.

Conclusions: The principles of MI can be successfully learned and applied in busy clinical settings using brief-focused MI interventions. The documented efficacy of MI and its relevance to enhancing the health and healing relationships between clinicians and their patients make it a great complement to successful delivery of patient-centered care.

Learning Objectives

1. Explain why the communication techniques most commonly used in health-care settings are often ineffective.
2. Identify the role of Motivational Interviewing in the context of providing "patient-centered care"
3. Discuss the basic principles of motivational interviewing and recognize communication that can contribute to more "resistance to change" with patients.

#### List of Participants and Their Roles in the Abstract

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Role(s): Presenter

Name: Kevin Haines

Organization: Armed Forces Health Surveillance Center

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Name: Patricia Rohrbeck

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Organization: AFHSC

Role(s): Presenter

#### Abstract Content, Presented in Order Requested from Submitter

##### Abstract Body

Background: Environmental exposures pose long-term health risks for service members. This study explored use of surrogates including metabolomics, and inflammatory biomarkers for breathing zone samples because of challenges in collecting and analyzing the samples.

Research Design/Methods: Phase 1 analyzed 30 unidentified “orphan” serum for biomarkers (PAH, dioxin, metabolomics, inflammatory) and used high-resolution mass spectrometry (HRMS) to detect serum adducts of PAHs and dioxin. Phase 2 analyzed exposure data, and compared pre- and post-deployment serum biomarker levels in 200 subjects deployed to Iraq and Afghanistan. The results were compared with 200 non-deployed subjects. Phase 3 linked air sample, serum sample, medical encounter, health questionnaire and demographic data among and between the two cohorts.

Results: Orphan serum sample analysis detected cytokines, interleukins, micro-RNA levels, environmental chemicals, dioxins and altered PAHs metabolic pathways. Burn pit air sampling data, and serum biomarker levels (metabolomics, PAHs, dioxin, inflammatory cytokines, interleukins and micro-RNAs) from phase 2, were linked with health questionnaire and medical encounter data in phase 3. The individual sampling data were linked with an individual’s health outcomes to assess the risk related to exposure. Serum cotinine levels were used to adjust the results for smoking status.

Discussion: This study examined serum biomarkers as surrogates for breathing zone air sampling data in determining health risks of environmental exposures and explored the association between burn pit exposure(s) and long-term health outcome(s) such as cancer. Elucidating the link between burn pit exposures and health outcomes has significant public health policy implications regarding medical treatment and compensation for affected service members.

##### Learning Objectives

1. Explain how high-resolution mass spectroscopy can be utilized to detect biomarkers of exposure in human blood serum.
2. Define an association between exposure of environmental agents while deployed and long-term health outcomes such as cancer.
3. Recognize that elucidating the environmental etiology of these health outcomes has significant public health implications for potentially providing scientific evidence to policy makers who regulate sampling in the deployed environment and documentation of health outcomes in service members.

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background: The Fleet Surgeon's Office requested a comparison of Operational Forces-NMCP Emergency Department (ED) usage to a similar non-Operational group. This analysis was conducted to better understand ED utilization among sailors whose primary care is provided by an operational unit.

Methods: Active duty sailors ages 18-55 that visited an ED during fiscal year 2012, enrolled to Operational Forces-NMCP or Non-Operational Forces-NMCP, and treated in Hampton Roads, Virginia were pulled from the MHS management and analysis reporting tool (M2). Encounters, ED facility, primary diagnosis, cost, day of visit, and residence were analyzed and visualized using GIS.

Results: No difference was found between Operational Forces-NMCP and Non-Operational Forces-NMCP ED use. A correlation between distance to direct care facilities and the utilization of purchased care was found. Personnel living more than 8 miles from NMCP were more likely to utilize purchased care. Of these visits, over 60% were non-emergent and most visits occurred on a weekday. Half of personnel living within 20 miles of NMCP also lived within 8 miles of one TRICARE clinic. One million dollars in ED costs were incurred at a purchased care facility near this TRICARE clinic.

Conclusions: ED use is similar between Operational Forces-NMCP and Non-Operational Forces-NMCP. A correlation was found between the distance to a direct care facility and purchased care use. Most purchased care visits were non-emergent and within 8 miles of a TRICARE clinic. Use of purchased care ED facilities may be due to limited access to direct care facilities near an individual's residence.

Learning Objectives

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Background: The Republic of Korea (ROK) is a strategically important political, economic, and military partner of the United States. Security threats from the Democratic People's Republic of Korea (DPRK or North Korea) are continuously ongoing. The objective of this report was to provide for the first-time a comprehensive public health biosurveillance report for U.S. forces in Korea (USFK) to mitigate health threats from DPRK.

Methods: The report used the Defense Medical Surveillance System (DMSS) for weekly queries on outpatient, inpatient, reportable medical events, and outsourced care encounters. The four major surveillance categories were: syndromic, reportable events, casualty, poisonings/toxidromic. The syndromic surveillance consisted of nine categories currently used by ESSENCE. The reportable events surveillance consisted of four sections: enteric illnesses, vector-borne diseases, biological agent-related, and influenza-associated hospitalizations. The casualty surveillance was restricted to medically-related, pending, and undetermined cases. The poisonings/toxidromic surveillance consisted of four sections.

Results: The report provided graphical results by week for the current year in relation to a five-year baseline. The data was displayed by section/category for USFK overall, the six areas within ROK, and outsourced patient care. The weekly report was available to commanders and other U.S. and ROK leaders with access to the Biosurveillance Portal, an initiative managed by the Joint Program Executive Office for Chemical and Biological Defense.

Discussion: This comprehensive tool of key health indicators was made available to a wider audience to improve communication between intelligence communities and ROK leaders in an effort to boost health security and disease prevention capabilities.

Learning Objectives

1. Describe how to conduct biosurveillance and how to develop a biosurveillance report.
2. Identify stake-holders in developing a biosurveillance project.
3. Interpret biosurveillance products and its surveillance categories in collaboration with other surveillance tools from the intelligence, environmental, and political communities.

List of Participants and Their Roles in the Abstract

Name: Paul D Rockswold

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Organization: Naval Medical Center Portsmouth

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Navy and Marine Corps Public Health Center Health Analysis Department (HA) and the Naval Medical Center Portsmouth (NMCP) Boice Sleep Lab collaborated to produce and implement an evidence-based referral application that guides primary care providers through sleep apnea criteria and symptoms, aiding in appropriate diagnosis and/or treatment and improved medical readiness and overall force health. Prior to implementation, data analyses showed that 50% of active duty members were deferred to purchased care and less than 30% of patients who underwent a sleep study were diagnosed with OSA. The referral tool uses an algorithm which assesses the degree and timeframe of symptoms and incorporates other causes of sleep disturbance. Follow up analyses indicate that implementation of the decision support tool has resulted in a 100% active duty acceptance rate--significantly reducing deferrals to purchased care by roughly 250 each month. Moderate to severe OSA diagnoses have increased to a rate of 63% among selected sleep study patients, indicating an improved referral process. Analyses indicate that in addition to improving clinical care for sleep disorders the tool has enabled an estimated cost avoidance of \$4-5 million per year. HA and the Boice Sleep Lab plan to broaden these impacts across the Navy Medicine enterprise employing academic detailing, translational research principles, and best practices.

Learning Objectives

1. Understand the health impacts and importance of sleep among active duty.
2. Appreciate the application and value of clinical practice guidelines and be prepared to apply these.
3. Recognize opportunities to improve clinic efficiency and access to care through adherence to clinical practice guidelines.

List of Participants and Their Roles in the Abstract

Name: Cathleen Davies

Organization: Defense and Veterans Brain Injury Center

Role(s): Submitter; Non-presenting contributor

Name: Therese West

Organization: CCSi/ DCOE

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

More than 294,000 service members have sustained a traumatic brain injury (TBI) between 2000 and the 2013. The majority of these (approximately 85%) occurred in the non-deployed environment and 82.4% were classified as mild TBI/ concussion. Current literature recommends initial rest followed by a gradual return to normal activity for individuals who sustain a concussion. However, rest is not clearly defined and the graded progression of activity after concussion for symptomatic individuals is not standardized.

This presentation will discuss two clinical recommendations that offer a conservative approach to return to activity as soon as safely as possible. The stages begin with rest and progress to return to pre-injury activity. The recommendations clearly define the stage of Rest with guidance for physical, cognitive and vestibular activities while defining activities to avoid. Two tiers of step-wise progression one for primary care and one for rehabilitation providers based upon experienced symptoms and provider expertise. Symptom tracking is done daily using the Neurobehavioral Symptom Inventory. Patients who do not progress while in primary care management are referred to rehabilitation providers for a more intensive clinician-directed, daily monitored, staged recovery.

Learning Objectives

1. Describe the science behind a progressive return to activity following concussion
2. Discuss how to implement a safe, evidenced based progressive return to activity following concussion.
3. Identify patients who may be managed by primary care and who should be referred to a rehabilitation provider.

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Kuwait's C-17 Globemaster III airlifter expands the Kuwait Air Force's capabilities in military and civilian operations, including humanitarian aid and disaster relief. The Kuwaiti Air Force seeks a robust regional airlift and long-range strategic airlift capability in order to better participate in humanitarian support operations, increasing interoperability among the Kuwait Air Force (KAF), the United States Air Force, Gulf Cooperation Council (GCC) countries, and other coalition forces. The briefing will discuss medical evacuations/humanitarian support within Kuwait, Gulf Council cooperation nations and throughout the world.

Learning Objectives

1. Identify challenges associated with developing global humanitarian support capability.
2. Determine current and projected global humanitarian medical needs
3. Understand interoperability challenges to a coalition global humanitarian response

List of Participants and Their Roles in the Abstract

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Role(s): Presenter

Name: Traci Fuhrman  
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Role(s): Presenter

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Introduction: Changes to the Air Force fitness program have resulted in increased rates of back and lower extremity injuries (65% of fitness profiles at Tinker AFB) and component failures resulting in referral performance evaluations and administrative separations for repeated failures. A targeted program to reduce injuries and enhance run times in those with prior run failures was developed to attempt to retain trained assets.

Methods: 88 active duty members with prior run failures were enrolled in a voluntary 6 week program requiring participation for 1 hour Monday through Friday. Targeted heart rate zones with a balanced variety of endurance runs, sprints, and strength training were used. Information was gathered on prior run exemptions, total failures in the preceding 24 months, baseline parameters to include age, sex, height, weight, BMI, % participation, pre and post run times as well as any injuries during the program.

Results: Prior fitness failure participants showed a post program success rate of 66% in the run component with a 5.8% improvement in run times (95% CI +/- 1.6%). There was a remarkably low incidence of injuries (3.4%) when compared to the rate of injury in this group in the past (42%).

Discussion: There was sustained success in a self-selected volunteer active duty population, with prior fitness failures, through 11 six week programs. The program utilized accepted standard techniques within the Exercise Physiology community requiring no specialized equipment. This well documented protocol should be easily implemented, incurring no additional costs beyond freeing the member to participate.

Learning Objectives

1. The learner will be able to identify key reasons for developing the FIT Program
2. The learner will be able to describe the FIT Program goals
3. The learner will be able to discuss the FIT Program's sustained results

## *Connected Health Across the MHS*

### List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Name: Daniel Kral  
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Role(s):

Telehealth projects and programs have been conducted in varying degrees by the Army, Navy and Air Force for approximately two decades. The Army has the most developed telehealth program within DoD, reporting 35,084 synchronous and asynchronous telehealth encounters in FY2012. Eighty-six percent of telehealth encounters conducted outside the operational theater of war and 55% conducted in operational settings were reported to be telebehavioral. The Air Force reports a fledgling program with video-conferencing connectivity at 75 Military Treatment Facilities but a well-developed synchronous case review and education program. Navy reports a primary focus on ship-to-shore teleradiology, with a commitment to development a more comprehensive telehealth program in the near future.

At the Enterprise level, a movement towards centralization and standardization of Service telehealth efforts has been underway for the last several years. This move was spurred by a tasking by the Office of the Secretary of Defense, Cost Assessment and Program Evaluation (OSD CAPE) to assess the current state of telebehavioral health in the Military Health System (MHS) and by increased interest by the the Assistance Secretary Defense of Health Affairs (ASD(HA)) in a department-wide telehealth capability. The last two years have seen the development of a gap analysis and initial strategic plan for telehealth growth in the MHS and a Strategic Telehealth Forum called by the ASD(HA) to chart the future of telehealth development. The latter led to formation of a Telehealth Integrated Product Team (TH IPT) which has worked to stand up an Enterprise Telehealth function in the MHS.

This lecture will cover the process by which the TH IPT developed a "programmatic solution" for telehealth in the MHS in order to share knowledge with other federal agencies interested in developing an integrated telehealth program.

#### Learning Objectives

1. Explain the process by which the Telehealth Integrated Product Team developed an Enterprise telehealth capability for the Military Health System.
2. Cite GAO guidance that influenced the process of telehealth program development and the context in which this development took place in the Military Health System.
3. Determine if the MHS model is applicable to telehealth development efforts in the learner's agency.

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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Background: A non-invasive decision support tool for emergency transfusion would benefit triage and resuscitation. We tested whether 15 minutes of continuous pulse-oximetry-derived hemoglobin measurement [SpHb] predicts emergency blood transfusion better than conventional oximetry, vital signs and invasive point-of-admission laboratory testing (POA).

Hypothesis: Non-invasive SpHb features predict emergency transfusion better than shock index [SI =heart rate (HR) / systolic blood pressure (SBP)] or routine POA laboratory measures.

Methods: We enrolled direct trauma patient admissions  $\geq 18$  years with pre-hospital SI  $> 0.6$ , collected vital signs (conventional and SpHb oximetry, HR, BP) for 15 minutes and recorded transfusion (pRBC) within 3 hours.. Eighteen pRBC prediction models, including combinations of pre-hospital and admission vital signs,

SpHb , conventional oximetry and routine POA were selected by logistical regression. Predictions were compared via Area Under Receiver Operating Curve (AUROC) by De Long's method.

Results: Of 677 enrolled trauma patients 59 patients received blood within 3 hours. Conventional pulse oximetry, vital signs and POA laboratory testing predicted emergency blood need with AUROC of 0.96, significantly better ( $p < 0.015$ ) than use of SpHb, SI and POA testing. Simultaneous SpHb:POA hemoglobin sampling correlation = 0.49. Models including POA laboratory values and SI (and the need for a blood pressure device) were better than those without POA values or SI.

Conclusions: SpHb added no benefit over conventional oximetry to predict urgent pRBC transfusion. Both models containing oximetry features performed better at predicting pRBC use than pre-hospital SI, the current best non-invasive vital signs transfusion predictor.

Funding: FA8650-11-2-6D01 & FA8650-13-2-6D11

#### Learning Objectives

1. Describe and contrast non-invasive oximetry, laboratory tests and vital signs predictions of urgent blood use
2. Summarize and judge the use of non-invasive hemoglobin oximetry use during unstable trauma patient resuscitation
3. Identify the current best vital signs and laboratory predictors of immediate blood use during trauma patient resuscitation

List of Participants and Their Roles in the Abstract

Name: Pawel Kowalczyk

Organization: Amsurg Surgery Center

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The ultimate goal of the United States Air Force (USAF) Aeromedical Evacuation (AE) system is the safe and comfortable transport of ill and wounded warfighters, and beneficiaries of the Department of Defense (DoD), from primary areas of injury to definitive medical treatment facilities (MTFs). The changing nature of modern warfare increases the complexity and severity of airlifted casualties who are receiving multiple pain treatment methods. This has added significant patient management challenges to AE crews striving to improve safe and effective en route pain control. The goal of this research is to improve care to our patients by providing crewmembers a simplified pain and sedation assessment tool for safer and more effective pain control, pain management, and documentation. This study uses the problem/solution research methodology to investigate multiple pain and sedation assessment scales. The purpose is to further identify the best pain/sedation combination for accurate, comprehensive, and consistent use by aircrews. The new validated Defense and Veterans Pain Rating Scale (DVPRS) was analyzed and recommended for Air Mobility Command (AMC) consideration and inclusion into standard AE in-flight clinical care practice. The result of the research indicates a simple, standardized combination of a pain and sedation assessment scale should deliver safer and more effective pain control across the entire military and veteran health care continuum.

Learning Objectives

1. Participants will recognize and improve the safety and effectiveness of wounded warfighters' in-flight and ground pain control measures
2. Healthcare professionals will describe the newly validated Defense and Veterans Pain Rating Scale (DVPRS) as an improved pain assessment tool having the potential of being accepted in the military, veteran and civilian sector for universal compatibility
3. Medical and nursing attendees will be able to utilize the combined pain/sedation assessment scales in their respective professional settings

List of Participants and Their Roles in the Abstract

Name: Paul Hollier  
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Role(s): Submitter; Presenter

Name: Bob Walters  
Organization: DoD Veterinary Service Activity  
Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

By 2047, global temperature increases will result in sea level changes that will threaten to displace over 600 million people in the littoral zone. In the Pacific, island plant and animal species will also be threatened and communities will have reduced access to fresh water. These island communities will be at risk of increased insecurity and instability, making them necessary priorities for global health interventions. Animal health is integral to community resilience especially for those that rely directly on animals for their livelihood. DoD Veterinary Services has initiated professional education activities to bridge skill and knowledge gaps required to support global Stability Operations in support of global health efforts. Currently, the World Bank, United Nations and USAID are initiating development activities for sustainable management of terrestrial, freshwater and marine resources. In collaboration with these partners, Veterinary Services can support and train for the unique animal health needs of island communities as part of an interdisciplinary “One Health” approach that is in line with the principles of US Global Health Initiative. This collaborative effort would promote security and stability in large coastal populations in support of the US Global Health Agenda and pivot to the Pacific.

Learning Objectives

1. Explain the impact of climate change on Pacific island population health as a key component of a global health security strategy
2. Describe how animal health activities and engagements are expanding to include littoral and aquatic ecosystems
3. Explain how the DoD veterinary engagement model can be leveraged to support the US Global Health Agenda in the Pacific

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Defense and Veterans Brain Injury Center (DVBIC) is an operational center of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCOE). DVBIC's mission is to serve active duty military, their beneficiaries, and Veterans with traumatic brain injuries through state-of-the-art clinical care, innovative clinical research and educational programs, and support for force health protection services.

DVBIC's research mission is to provide evidence-based knowledge through conducting and supporting clinically-focused research to improve treatment and outcomes for Service members and veterans who have sustained traumatic brain injury (TBI).

Consumers, policy makers, DoD senior leadership and other key stakeholders seek improved quality and efficiency in the military health care system. Outcome measurement is a standard of care in many disciplines and its use is widespread in medicine for evaluation, quality surveillance and risk mitigation, and for identification of best practices. The DVBIC Office of Outcomes and Assessments sought input for concussion health outcomes from military and civilian experts, completed a scan across the DoD, VA, and civilian sectors for best practices in concussion outcome assessment, and searched the scientific literature for measures relevant to concussion outcomes.

This presentation will review highlights of the DVBIC Research Portfolio of 62 studies that addresses areas of focus across the continuum of care for TBI and discuss two outcome measures identified, the Neurobehavioral Symptom Inventory (NSI) and the Patients' Global Impression of Change (PGIC), to measure and improve clinical outcomes for concussion.

Learning Objectives

1. Discuss the importance of TBI research in the military
2. Interpret the results of studies that impact the military healthcare system
3. Discuss the two Clinical Outcomes measures identified for concussion management

List of Participants and Their Roles in the Abstract

Name: Cathleen Davies

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Since April 2007, more than 500,000 Veterans from Operation Enduring Freedom, Operation Iraqi Freedom, and Operation New Dawn entering the VA health care system have been screened for possible TBI. The Polytrauma System of Care within the Department of Veterans Affairs is for veterans and service members with multiple injuries that result in physical, cognitive and/or psychological impairments and functional disability. Recent advances in technology have been utilized to increase functional independence for a smoother transition back into the community.

From patients with mild TBIs to those in vegetative states, innovative technology is empowering the progression through the rehabilitation process. Virtual reality, robot-like assistance for gait and functional movement, and specialized technology to increase levels of stimulation are often thought of technology of the future. However, through the Polytrauma Rehabilitation Centers (PRCs) the technology labs offer comprehensive evaluation, prescription and training for the use of technology to optimize Veterans' and active duty service members' independence and community participation goals.

The Smart Home is a data/report system with real-time monitors installed at the poly-trauma transitional rehabilitation programs (PTRP) and in veteran homes to improve quality of life and reduce hospitalization by increasing safety, maximizing independence, and reducing caregiver burden.

Expansion of tele-rehabilitation services including standardized protocols for remote TBI evaluation, devices for in-home monitoring of TBI symptoms and the TBI Coach, an app for symptom self-management.

Learning Objectives

1. Discuss new advances in technology for TBI being utilized in the Department of Veterans Affairs
2. Discuss how technology is being used to improve patient independence
3. Discuss new technology being developed for TBI

List of Participants and Their Roles in the Abstract

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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Background: Maintaining trauma specific surgical skills is a challenge for military surgeons. Objective assessment of surgical readiness is needed. We hypothesized that expert surgeon technical skill metrics could provide a reliable technical skill assessment for less experienced surgeons.

Methods: After Institutional Review Board approvals, surgical technical skills assessment metrics were developed from discussion with 10 expert surgeons, video review performing three vascular exposure procedures and lower extremity fasciotomy on both cadavers and hyper-realistic physical models, and a consensus conference. These same metrics were tested in 10 residents using Android tablet software and a head camera to capture 16 specific steps and techniques and 5 performance global ratings during the four procedures. Performance was then assessed on random video-clips of both experts and novices by 5 trained evaluators and compared with regression modeling and inter-rater reliability (ICC) analysis.

Results: Among 10 residents, scores showed no evidence of floor or ceiling effects. Occurrence of 16 expert technical skills, agreed upon by experts, was found in 51-59% of residents during the 4 procedures. Global overall performance rating was 54%. Global technical performance was 69%. ICC ranged from 0.79-0.99 for agreement both between raters and among most skills ratings.

Discussion: Evaluation metrics discriminated novices from an expert standard with excellent inter-rater reliability. Validation in a larger population and before/after skills training is required. Further work with simulated physical models may provide a mobile skills evaluation platform without cadavers.

Support: US Army (USAMRMC) W81XWH-12-JPC1  
Learning Objectives

1. Describe development of surgical skills performance metrics for emergency procedures
2. Summarize results of testing metrics on novice surgeons
3. Identify strengths weaknesses and limitations of hyper realistic surgical physical models

List of Participants and Their Roles in the Abstract

Name: Scott Salvatore

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Department of Defense biological, chemical and nuclear surety programs put forth policy, procedures and responsibilities that govern how to best ensure safety, security and reliability of employees who perform duties in these highly sensitive areas related to national security. A critical component within surety is personnel reliability programs (PRP) which mandate that personnel performing duties in support of and/or have access to biological, chemical and nuclear materials, meet the highest reliability standards.

These programs have garnered heightened attention and scrutiny since a federal scientist, employed at USAMRIID (U.S. Army Medical Research Institute of Infectious Diseases), allegedly distributed anthrax through the U.S. mail. The U.S Army Biological Personnel Reliability Program (BPRP) is designed to safeguard that military, federal and contract workers, with access to deadly select agents and toxins, meet the standards of reliability. An integral component to determining both initial qualification and continued participation in the BPRP is a medical evaluation, of which includes a behavioral health screen and if warranted a comprehensive psychological evaluation.

The purpose of this presentation is to review psychological assessment issues related to personnel who perform BPRP duties.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Penny F Pierce

Organization: Uniformed Services University of the Health Sciences

Role(s): Submitter; Presenter

Name: Christine E. Kasper

Organization: Dept. of Veterans Affairs & USUHS

Role(s): Presenter

Name: Paul Lewis

Organization: Uniformed Services University

Role(s): Presenter

Name: Lisa Osborne

Organization: Uniformed Services University

Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Uniformed Services University (USU) is a unique center of excellence for military and public health professions, education and research. The PhD program in Nursing Science was established in 2003 to meet a growing need for scientists prepared to investigate issues and problems relevant to federal healthcare and military operations. The signature curriculum is designed to prepare nurse scientists for research roles as members of the uniformed services, the Veterans Administration, the Public Health Service, and other federal agencies. This presentation from faculty and current students will describe the distinctive features of the signature curriculum, innovations in research training, and the preparation of scientists for leadership careers in service to the nation.

The PhD program in Nursing Science provides students with research-intensive experiences in the basic, behavioral and social sciences to investigate emerging knowledge gaps in military and federal healthcare. TriService faculty members mentor a range of basic science projects including, for example, the exploration of the epigenetics of PTSD in females and the carcinogenic effects of imbedded metals using animal models. Biobehavioral and social science students have explored the psychological effects of combat stress and trauma, traumatic brain injuries, recovery and rehabilitation processes in polytrauma, as well as philosophical inquiry into the ethical and policy issues inherent in federal healthcare systems. As the nation's sole institution dedicated to the education of tomorrow's Federal healthcare nurse scholars, scientists and leaders, the USU provides a unique educational preparation designed to meet the mission of the DOD and federal healthcare system.

Learning Objectives

1. Describe the educational preparation of nurse scientists specific to needs of the federal healthcare system.
2. Identify the process of identifying knowledge gaps from the battlefield and bedside to nurse scientists prepared to conduct rigorous studies to guide healthcare providers.
3. Discuss the interactive relationship between the USU doctoral program and the various service and agency leadership in meeting their respective strategic research objectives.
4. Provide an opportunity to learn of the educational experience from the perspective of current students.

List of Participants and Their Roles in the Abstract

Name: Robin N Hunter-Buskey  
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Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The practice of medicine using electronic communication expands clinical care to patients. Increased access to health care is a major concern for uninsured and high risk populations. While telemedicine is a logical use of advancing technology, many factors must be considered when providing medical care for patients and providers in two different locations. Patient privacy, safety, cultural sensitivity and follow up must not be sacrificed. The increase in personal internet use, social media and access to smart phones provides an opportunity to enhance population health.

Learning Objectives

1. The learner will be able to discuss the impact of telemedicine in health care
2. The learner will be able to describe the practical application of telemedicine for high risk populations
3. The learner will be able to explore the challenges for health care systems, clinicians, policy makers and the public for using telemedicine services

List of Participants and Their Roles in the Abstract

Name: Vladimir Nacev

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

In investigating vicarious trauma among professionals the focus has exclusively been on professionals working with populations who have experienced a traumatic stressor associated with interpersonal violence (Brady, Guy, Poelstra, & Fletcher Brokaw, 1999; Pearlman & MacIain, 1995; Pearlman & Saakvitne, 1995; Schauben & Frazier 1995). There are research data suggesting that healthcare providers working with trauma survivors may be at some risk for being negatively affected by their work (Figley, 1995; Haley, 1974; Herman, 1992; Kassam-Adams, 1995; McCann & Pearlman, 1990; Neumann & Gamble, 1995; Schauben & Frazier, 1995). The literature identified concepts in how providers may respond when providing counseling to victims of trauma, and they include burnout (Freudenberger, 1974; Maslach) and compassion fatigue (Figley; Joinson, 1992). McCann and Pearlman (1990) suggested that vicarious trauma is related to each of these concepts. Three conditions specific to clinical work with trauma survivors have been identified. They are: (1) empathic engagement and exposure of the therapist to graphic and traumatic material, (2) empathic engagement and exposure of the therapist to the reality of human cruelty, and (3) the therapists' participation in the client's traumatic reenactments of their trauma within the therapy process (McCann & Pearlman; Pearlman & Saakvitne). Much of the research on vicarious trauma has focused on the effects and symptoms of vicarious traumatization on the clinician. What is needed are the preventative practices being used by therapists who engage in trauma specific therapies. Harrison (2000) found particular practices that exemplary clinicians demonstrated which protected them from vicarious traumatization.

Learning Objectives

1. Participants will be able to describe three (3) ways vicarious trauma affects providers/caregiver's physical and psychological health.
2. Participants will be able to identify two (2) healthy behaviors providers/caregivers can engage in to improve psychological and physical health.
3. Participants will be able to describe efforts that address vicarious trauma challenges related to compassion fatigue.

List of Participants and Their Roles in the Abstract

Name: Michael Koopmeiners  
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Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

During the 1980s the water supply at a military base in North Carolina was found to contain volatile organic compounds (VOC) including trichloroethylene (TCE), perchloroethylene (PCE), benzene and vinyl chloride.

Veterans who served at that military base prior to 1987 were potentially exposed to these contaminants. Veterans may file for Department of Veterans Affairs (VA) disability compensation for current medical conditions claimed to be associated with the contaminated drinking water. To ensure fairness and consistency in benefit claims processing, VA has established a specialized process to evaluate the environmental exposures and the correlation of specific reported diseases. The quantitative environmental exposure assessment uses data gathered from a review of clinical records and from self-reported information obtained during the VA disability benefits claims process to determine the magnitude, frequency and duration of exposure to VOCs. Using dose response models found in peer-reviewed literature, risk assessment is documented to describe the likelihood of the adverse health outcomes due to VOC exposure among Veterans. The studies allow for determinations of the differentiation between the lowest observed adverse effect levels and no adverse effect levels, identification of occupational risk factors in service treatment records, and the ability to calculate environmental exposure.

Learning Objectives

1. The learner will be able to differentiate between the lowest observed adverse effect levels and no adverse effect levels.
2. The learner will be able to identify occupational risk factors in service treatment records.
3. The learner will be able to explain how to calculate environmental exposure.

List of Participants and Their Roles in the Abstract

Name: Kelly Engstrom

Organization: Ward Circle Strategies

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Washington DC 20036

Role(s): Submitter; Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Department of Defense's overarching goal in reforming the Military Health System is to achieve integration across the broad scope of responsibilities in both wartime and peacetime healthcare operations..

This presentation will provide an update on the progress of the stand up of the Defense Health Agency (DHA) from a business perspective, and will provide an overview of the changes taking place in the enhanced Multi Service Markets (eMSMs). A detailed review of the ten shared services being implemented in FY 2014 will be provided.

Central to the implementation approach for the DHA is the understanding that significant and long-term improvements in health system performance are only achievable only through a sustained, joint focus on our clinical and business processes, and greater accountability for performance. Through this approach, we are confident that we can improve health and health outcomes while simultaneously reducing costs to the Department and taxpayer.

Learning Objectives

1. Describe progress made in 2014 in the stand up of the Defense Health Agency
2. Discuss changes taking place in the enhanced Multi Service Markets (eMSMs)
3. List the ten shared services being implemented in FY 2014

List of Participants and Their Roles in the Abstract

Name: Kelly Engstrom

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

In November of 2012, the Interagency Care Coordination Committee (IC3) was chartered under the Joint Executive Committee (JEC). For nearly two years, the IC3 has been working to review and improve all aspects warrior care coordination through a number of successful interagency policy and collaboration efforts.

This presentation will review key accomplishments and lessons learned for interagency collaboration as the IC3 has transitioned from concept to implementation in 2014. These efforts have included 1) building a national, virtual community of practice for VA/DoD care coordination and case management professionals, 2) developing and piloting an interagency comprehensive plan, 3) implementing a lead-coordinator model for care coordination, and 4) establishing a single, overarching VA/DoD policy for interagency-care coordination.

Learning Objectives

1. Review the current state of warrior care coordination efforts and programs within and across DoD & VA
2. Cite some of the key changes taking place across DoD & VA with regard to interagency care coordination
3. Describe key learnings and best practices for successful DoD/VA interagency efforts

List of Participants and Their Roles in the Abstract

Name: Candy Wilson

Organization: 59 CSPG/SGVUS

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

In January 2013, the Department of Defense rescinded the Direct Combat Exclusion Rule, which now allows military services to expand integration of women into previously restricted occupations and units. The majority of forward operating positions will be staffed with women. As the first line health care provider, the enlisted medic (Navy Independent Duty Corpsmen, IDC/Air Force Independent Duty Medical Technician, IDMT/Army Combat Medic, 68W) may be the only resource for women to gain access to the health care system and information about their sex specific health. The purpose of this study was to gain better understanding of the IDC/IDMT/68W experiences of providing health care for women in the deployed or ship setting. The study used an exploratory, descriptive study informed by ethnography. To date, 86 individuals participated in focus groups. Three themes were described: Medic Preparation: Education and Training, Medic-Patient Interaction, and Patient Care in Austere Settings. Medics want to care for all services members at their location, but when asked about women's health they described concerns about a lack in training, experience, and resources. Medics were the conduit for communicating health care needs of female service members to military leadership, which often included a risky transport to a higher echelon of care due to the medics' lack of preparedness to manage the symptoms. Study findings will inform military leaders about the health care needs of women as well as the practice needs of military medics when considering the final stages of the full integration of women.

Learning Objectives

1. Describe three education and training concerns medics listed
2. Describe three education opportunities to inform women about deployment or training health
3. List three topics medics described about health care delivery in an austere setting

List of Participants and Their Roles in the Abstract

Name: Soykan Şahin

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

**AIM:** Sleep is in an active state which is of vital importance for the regeneration of our mental and physical health and which takes up about one third of our lifespan. Sleep disorders are particularly important for specific groups of professionals like health workers. This research aimed to establish the frequency of sleepiness in Gülhane Military Faculty of Medicine students, their sleep disorders and factors that may affect their sleep patterns. It also set out to the precautions which may be taken to prevent them.

**METHOD:** Actual participation was 69% (412/597). The research was cross-sectional with data collected by means of a questionnaire. The Epworth Sleepiness Scale (ESS) score was the dependent variable of the research.

**RESULTS:** 84.3% of participants stated that they felt the need to sleep during the day. 56.8% of the students revealed that they felt excessively sleepy during the day, whilst 42.8% did not feel excessively sleepy. A significant statistical link has been established in the ESS score between feeling extremely sleepy every day and “not going to bed at the usual time every day”, “not feeling rested upon waking up”, “feeling excessively sleepy during the day” and “experiencing sleepiness in class because of the classroom environment” ( $p < 0.05$ ).

**CONCLUSIONS:** Of the students who participated in the survey, 34.5% did experience sleepiness, and this was about 4-6% above the expected level in normal circumstances. Medical students should be advised on how to deal with sleep disorders and their living environments should be carefully constructed for them to concentrate.

Learning Objectives

1. to establish the frequency of sleepiness in Gulhane Military Faculty of Medicine students
2. to identify how to deal with sleep disorders
3. define sleep disorders in students of medical faculty

*Growing Pains While Shrinking Wounds - Updates and Reviews of the San Diego Plastic Surgery / Spinal Cord Injury Telehealth Program, from Inception and Implementation to Development and Challenges, a Multi-Year Experience.*

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List of Participants and Their Roles in the Abstract

Name: Kevin Broder

Role(s): Presenter

Organization: VA San Diego

Role(s): Submitter; Presenter

Name: Andrew Michael

Organization: VA San Diego Healthcare System

Role(s): Presenter

Name: Richard Bodor

Organization: VA San Diego

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Utilization of Telehealth in medicine has become an increasingly important tool for providing patient care. The VA San Diego Plastic Surgery/Spinal Cord Injury (SCI) Telehealth Program has expanded year after year to employ the use of many Telehealth modalities including Clinical Video Telehealth (CVT), CVT to the Home, Home Telehealth and Specialty Care Access Network/Extension for Community Healthcare Outcomes (SCAN/ECHO). These developments help widen the safety net and increase veteran access to specialty wound care.

SCAN/ECHO is an innovative program providing a “grand rounds/tumor board” style monthly educational forum for interdisciplinary teleconsultation on patients with complex wounds. Treatment and prevention approaches are addressed, while offering a CME/CEU accredited educational lecture series to participants.

Clinical Video Telehealth (CVT) or ‘live patient teleconferencing’ enables central ‘hub’ specialist evaluations of remote ‘spoke’ patients with wounds. These sessions are used for consultation, pre-op assessment, follow-ups, post-op care, hand-offs, patient and family education and directed wound care procedures.

CVT to the Home allows patients to efficiently be evaluated by tele-connected practitioners, from the comfort of their own home. Close, more frequent follow-up is accomplished, which helps minimize at risk patients from travel and helps decrease transportation and readmission costs.

The Home Telehealth program takes advantage of in-home portable remote devices that employ Disease Management Protocols (DMPs) to electronically monitor and report the ongoing status of patients with various illnesses, including Diabetes and Spinal Cord Injury which impact wound healing.

The Interdisciplinary Team Approach to wound care enables subspecialist collaboration to formulate complex wound care treatment and prevention strategies. Team members include plastic surgeons, SCI rehabilitation physicians, remote primary care providers, nurses, dietitians, physical therapists, psychologists, social workers, subspecialty consultants and home care practitioners.

Learning Objectives

1. Describe the various types of telehealth modalities (Clinical Video Telehealth, Home Telehealth and Clinical Video Telehealth to the Home) and how they can be incorporated into a comprehensive wound care program to increase patient access to specialty wound care.
2. Learn how the innovative SCAN/ECHO teleconsultation program utilizes interdisciplinary collaborative consultation to improve prevention, early detection and treatment of complex wounds and pressure ulcers while providing continuing medical education for participants.
3. Become familiar with the Interdisciplinary Team Approach to wound care and be able to discuss how subspecialists from various disciplines collaborate to formulate complex wound care plans across the healthcare continuum.

List of Participants and Their Roles in the Abstract

Name: MARK E FLEMING

Organization: WALTER REED NATIONAL MILITARY MEDICAL CENTER  
DEPARTMENT OF ORTHOPEDICS

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Introduction: As the conflicts of the past decade conclude, Amputee Centers of excellence continue to right size to match resources to needs. The purpose of this study is to identify risk factors for late amputation after combat related injury.

Methods: The EACE-R Amputee Database was queried for all delayed amputees - defined as an amputation occurring 90 days or greater after the date of injury. After IRB approval, a retrospective chart review of all patients who sustained a combat related tibia joint injury or fracture during Operation Enduring Freedom and Operation Iraqi Freedom from 2003 to 2011 was performed. This data was compared to the prospective Joint Trauma Registry. A logistic regression analysis with amputation as our outcome variable against the various injury and treatment characteristics as predictors of amputation was performed.

Results: The data base query identified 193 combat wounded service members who underwent a delayed amputation. A subset of service members met inclusion criteria and were analyzed. A majority (89%) of the fractures were secondary to a blast mechanism and were treated with ORIF (65.1%). Overall: infection rate 23.8%; symptomatic HW 9.5% and a wound complication of 20.6%. Based on logistic regression analysis, we found an over 3-fold increase in late amputation in patients with ipsilateral fractures (p-value < 0.05). We also found that patients in our population who developed infection also had an over 3-fold increase in amputation, though this was not significant (p-value < 0.062). We observed a 2-fold increase in amputation rate in patients with open injuries and Gustilo-Anderson Type 3C fractures though this was also not statistically significant.

Conclusion: Combat related lower extremity joint injuries are associated with a high complication rate, namely late amputation. This is substantially higher than that observed in the civilian literature. Based on our study, one of the most significant risk factors in predicting amputation is the presence of an ipsilateral lower extremity fracture. Identifying this injury pattern may enhance the decision making process for surgeons and patients. This data also illustrates the challenges in right-sizing casualty care related services as a delay in presentation may be inevitable.

Learning Objectives

1. Identify risk factors for late amputation.
2. Recognize the resources expended on failed limb salvages.
3. Recognize the challenges associated with management of the mangled extremity.

List of Participants and Their Roles in the Abstract

Name: MARK E FLEMING

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Abstract Content, Presented in Order Requested from Submitter

Abstract Body

**INTRODUCTION:** The partnership for patients is an initiative adopted by the Military Healthcare System to reduce patient injury and illness by reducing hospital-acquired conditions. Venous thromboembolism (VTE) is one of the ten harm areas identified to achieve this goal. VTE is the leading cause of preventable morbidity and mortality in hospitalized patients accounting for up to 10% of hospital related deaths.

**MATERIALS AND METHODS:**

A review of our National Surgery Quality Improvement (NSQIP) data and chart reviews found elevated rates of perioperative VTE and challenges to provide “best practices” in VTE prophylaxis. This data was utilized to direct efforts in developing a VTE prevention program.

**RESULTS:**

Between 2010 and 2011 we identified 14 occurrences of VTE out of 1217 perioperative cases for an observed rate of 1.15% (0.80% risk adjusted rate). A chart review found deviations from the American College of Surgeons best practices for VTE prophylaxis: 30% had no documentation of VTE risk; 80% with identified risk had no risk stratification; 50% were risk stratified to the wrong category; 35% did not receive appropriate prophylaxis; No standardized patient, nursing or staff education program; no standardized order set or clinical practice guidelines and no prompt to document deviation from standards.

As a result of the findings we established a VTE prevention program with the following modules: 1) Clinical practice guidelines; 2) Standardized prophylaxis order set 3) Risk assessment based on the Caprini score; 4) Mandated risk assessment at all points of admission through forced compliance; 5) Staff education program; 6) Standardized patient education and discharge instructions; 7) Sequential compression device units for all patients. 8) Assessment of program effectiveness through quality tools.

With program implementation we realized an immediate 100% compliance with mandatory risk assessment and VTE prophylaxis ordering

**Conclusion:** The use of evidence-based guidelines reduces risk. The hallmark of our effective program is forced compliance with risk stratification and prophylaxis ordering. Implementation of an effective VTE prevention program requires identification of your institutions current VTE practices and determination if they are in line with national standards.

**Learning Objectives**

1. Identify the best practices for VTE prophylaxis.
2. Recognize methods to increase compliance with VTE prevention programs.
3. Recognize the VTE is preventable hospital acquired condition.

List of Participants and Their Roles in the Abstract

Name: Guenter Kreim

Organization: Bundesministerium der Verteidigung

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

In 2014, the Psychological Service of the Bundeswehr undertook a research project to look at the pre- and post-deployment status of German Armed Forces personnel deployed in support of NATO operations in Afghanistan. Over 500 soldiers were involved in this study, which looked at three dimensions of psychological fitness: resilience and coherence, post operational growth and quality of life as well as self and expert ratings of psychological fitness. The summary data included DSM related clinical categories, as appropriate. The study structure, as well as the details of the concept and related research will be presented. This data will build the basis for implementation of improved psychological resiliency efforts into all German Armed Forces military branches beginning 2015.

This session will be presented in combination with the research section of the Psycho Trauma Centre of the Bundeswehr in Berlin and active military psychologists.

Learning Objectives

1. understand pre- and post- status of German Armed Forces related to deployment to Afghanistan
2. application of expert ratings of psychological fitness of deployed soldiers
3. apply research presented to discuss improvements in psychological resiliency efforts of all armed forces.

List of Participants and Their Roles in the Abstract

Name: Linda Cowan

Organization: VA

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

An overview of the evidence based practice process related to searching for, reviewing and appraising evidence. This presentation will also demonstrate common tools to help apply research evidence to practice and describe differences between research, evidence summaries and improvement activities. Some examples of applying research evidence to wound practice regarding antibiofilm strategies, pressure ulcer prevention and compression therapy for venous insufficiency will be discussed.

Learning Objectives

1. Describe Evidence Based Practice (EBP) practices
2. Identify differences between EBP, Quality Improvement and Research tools
3. Review examples of wound related research findings (regarding Biofilms, PU Prevention & Compression Therapy)
4. Discuss ways to appraise and apply research evidence to clinical practice

List of Participants and Their Roles in the Abstract

Name: Kenneth Earl Dempsey

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Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

When service member deploys, family dynamics change drastically and permanently. Neither deployed service member nor non-deploying family members are adequately prepared for the life changes coming.

Family issues are not adequately addressed during deployment, and

resources and supports for families are uneven.

Emotional and adjustmental needs of family members are under addressed. Communication between family members and service members has been inadequate at best.

Reserve families and service members are the most under served.

Through personal experience with several deployments in support of OEF, OIF, and OND, and in collaboration with colleagues who have deployment, the author has developed evidence based approaches in improving pre, during and post deployment coping skills and strategies which may lead to a more seamless and humane family-friendly reintegration. Author's family and Families of deployed service members are major contributors to this presentation.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Lewis Hofmann

Organization: The Air Force Acupuncture Center

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Quickly delivering rapid pain relief with minimal side effects can have great advantages in all clinical arenas. This practical, hands-on workshop is designed to teach a simple and highly effective protocol to reduce pain utilizing auricular acupuncture. Students will learn to place indwelling needles in 5 specific points on each ear and leave the course confident to immediately utilize this technique in their practice.

Learning Objectives

1. Understand a basic history of acupuncture and current theories of how battlefield acupuncture works.
2. Appropriately select patients for battlefield acupuncture: Recognize conditions which battlefield acupuncture can treat, identify patients who should not receive battlefield acupuncture, and understand the military-unique implications of acupuncture treatment.
3. Master performance of battlefield acupuncture: Obtain and document informed consent, locate and sequentially needle the battlefield acupuncture points using proper aseptic technique, appreciate the possible complications of battlefield acupuncture and be prepared to manage them, identify, understand, and convey post-procedure instructions and precautions, and demonstrate proper documentation of a battlefield acupuncture treatment.
4. Know how to order battlefield acupuncture supplies.
5. Know how to access acupuncture consultation if needed.

List of Participants and Their Roles in the Abstract

Name: Richard Stoltz

Organization: Defense Centers of Excellence for Psychological Health and TBI

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Numerous studies in the literature have focused on the biological, psychological, sociological and cultural aspects of resilience. Resilience is generally referred to as a pattern of positive adaptation following significant stress, adversity or risk. It is usually examined by researchers to understand why some individuals fail to thrive while others are strengthened by traumatic experiences. This presentation highlights cases of individuals who have experienced trauma and the lessons and insights they gained from their traumatic experiences. It suggests that spiritual and existential aspects of resilience should be included in the current discourse on resilience. Gestures such as empathy, kindness, and forgiveness can make a difference to one's well-being and their feelings of connectedness, hope, and resilience. The provider's efforts to support healing should include the concepts of cognitive reframing and empowerment. Implications for policy, practice, and research will also be discussed.

Learning Objectives

1. Explore the concept of resilience and healing amidst depressive and traumatic experiences.
2. Identify the spiritual and existential aspects of resilience and explore their implications for enhancing warrior care and recovery
3. Examine the most difficult aspects of recovering from traumatic experiences and identify some of the best way to respond to traumatic events.

List of Participants and Their Roles in the Abstract

Name: George Lamb

Organization: Defense Center of Excellence for Psychological Health and Traumatic Brain Injury

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Department of Defense developed the *inTransition* program in response to the Defense Department's Mental Health Task Force recommendation to "maintain continuity of care across transitions" (5.2.2). The *inTransition* program was created to provide support to service members receiving psychological health services while transitioning due to a change in status, assignment relocation, return from deployment or return to civilian life. The *inTransition* program's outreach efforts include social workers, psychologists, psychiatrists, nurse case managers, traumatic brain injury specialists and any other providers assisting service members with a transition while receiving psychological health treatment. The primary objective of the Department of Defense and Department of Veterans Affairs' collaboration is to bridge potential gaps to ensure that service members receiving psychological health care do not "fall through the cracks" during transition. The *inTransition* program provides service members with a telephonic coach who provide one-on-one assistance tailored to each service member's unique circumstances and psychological health care needs. The coaches are familiar with military culture and utilize non-medical counseling and motivational interviewing techniques to encourage continuation of psychological health services. The coaches connect service members with a new gaining provider, facilitate the follow-up of separating and retiring service members with VA psychological health services and empower service members to engage in their own psychological health and overall wellness. The coaches help identify local community services, support groups, crisis intervention services and healthy lifestyle resources in the service member's new location. The *inTransition* program is available 24 hours a day, seven days a week.

Learning Objectives

1. Identify the need to decrease the number of service members who disengage in psychological health treatment while transitioning.
2. Explain the transition process used to assist service members who are receiving psychological health treatment to ensure they have continuity of care.
3. Describe the methods used to empower service members to take charge in their own well-being and mental wellness.

List of Participants and Their Roles in the Abstract

Name: Sonjia Howard

Organization: DoD/DHA/MACH DBH / Family

Advocacy / Warrior Transition Unit

Role(s): Submitter; Presenter

Name: Maureen Cippel

Organization: USMS

Role(s): Presenter

Name: Chae Chong

Organization: Regional Pharmacy Consultant /ICE

Health Service Corps/Enforcement & Removal  
Operations

Role(s): Non-presenting contributor

Name: David Lau

Organization: USPHS

Role(s): Non-presenting contributor

Name: Todd Johnson

Organization: Health Insurance

Specialist/CMS/Department of Health and Human  
Services

Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The professionalism, wxperience, and technical expertise the Commissioned Corps Officers of the United States Public Health service bring are invaluable. These medical professionals are ready, responsive and equipped to deploy, respond and serve, whenever and wherever during Public Health Emergencies. To name a few:

Hurricanes Sancy, Irene, Katrina, and Earthquake Haiti. The Services access Team (SAT) Tier 2 was xreated as part of the National Response Framework's EF\* Public Health and medical Asset provisions to provide critical resourxes during national emergencies. This talk will emphasize on SErvice and Re-integration. We will discuss the roles of SAT 2; review those likely affected (children, families, elderly, developmentally disabled, mentally ill, or minors separated from guardians); define and outline: conducting a needs assessment, collaboration, crisis services, disaster case-management, psychological first aid, and safe patient movement. We will focus on the "essentials" pertaining to service deliverables of securing and providing critical resources and information such as crisis devriefing, medical or behavioral health hygiene, suicide prevention, language translation, food and lodging, the use of service animals, and arrangement of transportation which may require the coordination of non-medical attendants; all provisions for actualization, re-integration, and resolve.

Learning Objectives

1. Understand the concepts, guidelines, implications, and applications of crisis response and services during national emergencies that include needs assessment, advocacy, and collaboration
2. Define and render an evidence-informed approach for assisting children, adolescents, adults, and families in the aftermath of disaster and terrorism
3. Advocate, plan, assess, secure, administer and monitor ongoing health and human services needs and critical resources for affected and at-risk populations

Name: Leorey Saligan

Organization: Chief, Symptoms Biology Unit,  
NINR/NIH

Role(s): Non-presenting contributor

Name: Jamie Seligman

Organization: Substance Abuse and Mental Health  
Services Administration (SAMHSA)

Role(s): Non-presenting contributor

Name: Michelle Elyse Arena

Organization: Winslow Indian Health Care Center

Role(s): Presenter

Name: Jennifer Cheng-Dobson

Organization: National Park Service

Role(s): Presenter

Name: Laura E. Aponte

Organization: Health Resources and Services  
Administration

Role(s): Presenter

## List of Participants and Their Roles in the Abstract

Name: Patrick Godart

Organization: French Military Health Service

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Activated on January 11th, 2013 in full agreement with the Malian government and according to the United Nations Charter, operation SERVAL is an operation under national command which aimed to allow Mali to get back its territorial integrity. This operation is characterized by its initial lightning speed, by the exceptional characteristics of the theater of operation (climate, strains, distance with the metropolis) and by the density of the operations.

Later in 2013, the operation Sangaris in Central African Republic (CAR) is quite different, especially due to the urban environment of the initial deployment, the unsafely social climate and the equatorial constrains.

The lessons learned from these operations are numerous. They highlight the efficiency of the warning device, the quality of the training of the teams, the coherence of the capacity choices and the richness of the acquired operational experience. Beyond what constitutes an unquestionable military success, and even if no conflict looks like one another, there are lessons to be exploited and margins of progress are identified

The prominent place of the medical within Command and Control is reaffirmed and the capital gain of Patient evacuation Coordination Cell (PECC) is undisputed. Regarding the organization of the medical support, operation SERVAL dedicated the first operational deployment of the medical transit unit (MTU) and emphasized the interest of the CASA C 235 (“Casa Nurse”) as vector of the tactical MEDEVACs. The individual and collective experiences regarding combat rescue allowed a good care of the wounded people on the ground. The medical teams in support of the combat units developed ingenious methods of action to assure an itinerant medical support. Advanced surgical units demonstrated their tactical flexibility as Role 2 BASIC in particular thanks to their capacity of redeployment.

With regard to the nature of the operations and the climatic constraints, the water supply will have been a major logistic stake from which it will be necessary to learn. The distances on the Malian territory and the isolation of small detachments prefigure challenges regarding medical support of the future commitments. The biology means, particularly important in intertropical and equatorial zones, have to be the object of additional studies to have deployable light laboratories.

Learning Objectives

1. Manage climatic constraints regarding challenges for medical support
2. Employ tactical flexibility for combat rescue and care of wounded in both remote and urban settings
3. Efficient use of warning devices and team training

List of Participants and Their Roles in the Abstract

Name: Marina Khusid

Organization: Deployment Health Clinical Center, DCoE

Role(s): Submitter; Presenter

Name: Monique Worrell

Organization: Defense Centers of Excellence

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Twenty five percent of Service members with history of deployment have at least one mental health condition, and half of these receive two or more distinct psychiatric diagnoses. Traditional approaches to the treatment of these conditions are limited by modest response rates, adverse effects, poor compliance and polypharmacy. The chronic, debilitating and complex nature of traumatic stress related mental health conditions results in high long-term personal and societal costs, which in turn makes the development of cost-effective self-management modalities of great public health importance. This presentation will consider exercise and mindfulness meditation as self-care strategy in management of mental illness.

Mindfulness meditation is safe, affordable, and easy to learn self- management approach in individuals with deployment related mental health conditions. An increasing body of evidence supports the use of mindfulness as an adjunct to standard care for common mental health conditions in Service members and Veterans. This presentation will discuss clinical studies evaluating the efficacy of mindfulness meditation interventions for the management of depression, posttraumatic stress disorder (PTSD), substance use disorder, tobacco use disorder, anxiety, sleep disturbance, and chronic pain. We will also offer an interpretation of research findings, from the perspective of clinical recommendations, regarding the use of meditation as a self-care adjunct in management of common mental health conditions in Service members and Veterans.

Several recent systematic reviews suggest exercise effectiveness in management of major depressive disorder (MDD). Both, the Veterans Affairs/Department of Defense and American Psychiatric Association Clinical Practice Guidelines recommend exercise as either adjunct or primary treatment for various patient populations and types of MDD. However, no precise clinical guidance exists on type of exercise, duration and frequency that is optimal in depression management. This session will discuss: (1) exercise benefits and mechanism of action on psychological health, (2) comparative effectiveness of exercise to psychotherapy and pharmacotherapy, (3) specific indications, (4) dosing and safety considerations.

Learning Objectives

1. Describe mechanisms of action and therapeutic effects of exercise on psychological health
2. Interpret empirical evidence regarding specific indications for monotherapy and adjunctive use of exercise in patients with mild, moderate, and severe MDD and the role of physical activity in relapse prevention and disorder progression
3. Interpret current research evidence related to efficacy and safety of mindfulness meditation for mental health conditions
4. Understand neurobiological mechanisms of action of mindfulness meditation
5. List clinical indications for mindfulness meditation use as self-care in promoting psychological health

List of Participants and Their Roles in the Abstract

Name: John Patrick Kirby

Organization: Washington University in St Louis School of Medicine

Role(s): Submitter; Presenter

Name: Jeffrey Niezgoda

Organization: Web CME

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Advanced wound care modalities should be considered when basic wound care efforts have failed to achieve reasonable wound healing trajectories. Wound care centers that take pride in delivering state-of-the-art wound care services need to be knowledgeable in the area of advanced wound technology. This session will introduce the attendee to new developments in the clinical practice of wound care. Advanced technologies that have recently been introduced to the market will be highlighted. The participant will gain an understanding of a comprehensive wound care program and how technology can be incorporated to improve wound healing outcomes.

Learning Objectives

1. Know the definition of an advanced wound care modalities and list several of these technologies.
2. Understand the clinical criteria that should be met before considering the initiation of advanced wound care modalities.
3. Describe the current reimbursement policies related to the utilization of advanced modalities in wound care and realize how certain advanced wound care technologies can be utilized synergistically in combination.

List of Participants and Their Roles in the Abstract

Name: John Patrick Kirby

Organization: Washington University in St Louis School of Medicine

Role(s): Submitter; Presenter

Name: Jeffrey Niezgoda

Organization: Web CME

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

This session will introduce the attendee to the impact of oxygen free radicals on wound healing. Ischemia reperfusion injury (IRI) and oxygen free radicals are defined and the basic chemistry surrounding reactive oxygen species (ROS) will be discussed. Detailed analysis of the inflammatory phase of wound healing and the role of oxygen free radicals in inflammation are presented. A discussion of the theory of wound chronicity related to IRI and excessive or uncontrolled ROS production is supported by case presentations. The concepts of ROS binding and the anti-oxidant role of hyperbaric oxygen to control IRI and ROS in various inflammatory conditions will be highlighted.

Learning Objectives

1. Understand the physiology of the inflammatory phase of wound healing.
2. Know the definition of oxygen free radicals, reactive oxygen species (ROS) and ischemia reperfusion injury (IRI).
3. Define the mechanism of cellular damage from IRI and ROS
4. State the potential adverse impact on wound healing from uncontrolled or excessive oxygen free radical production.
5. Describe the mechanism of action of hyperbaric oxygen and possible role of oxygen free radical traps, in the management of chronic wounds and other inflammatory conditions

List of Participants and Their Roles in the Abstract

Name: Glenn C Cockerham  
Organization: Veterans Administration Palo Alto Health Care System  
Role(s): Submitter; Presenter

Name: Sonne Lemke  
Organization: Veterans Health Administration  
Role(s): Non-presenting contributor

Name: Kimberly Cockerham  
Organization: Cockerham Eye Consultants  
Role(s): Non-presenting contributor

Name: catherine glynn-milley  
Organization: Veterans Affairs Palo Alto  
Role(s): Non-presenting contributor

Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

Background. Blast forces may injure tissue through a variety of mechanisms. Little is known about closed-globe ocular blast injuries, effects on visual functioning, and long-term visual outcomes.

Methods. Evaluation of 65 U.S. military personnel injured by blast included review of blast characteristics, including blast source, location during event, wear of personal protective equipment. Classification of eye injuries and determination of afferent visual functioning (visual acuity, contrast sensitivity, and automated perimetry/visual field) were performed. Ocular biomarkers evaluated included corneal endothelial density and morphology, and retinal nerve fiber layer thickness and macular volume by optical coherence tomography. Correlations between blast characteristics, injuries, and visual function were examined statistically.

Results. 44% of blast-exposed participants had at least one closed-globe injury. External injuries of the cornea and conjunctiva were strongly associated with other ocular injuries. The majority of participants had at least one visual deficit. The most common modality to detect significant visual deficits was automated perimetry, while visual acuity was the least sensitive. Despite an association between closed-globe injury and deficits in afferent visual function, many eyes without any evidence of ocular injury had abnormal visual functioning. Significant abnormalities were noted within the corneal endothelium and retinal nerve fiber layers of blast-exposed eyes. There was no protective effect noted for use of ballistic eyewear and either ocular injury or visual dysfunction.

Conclusion. Blast exposure may cause ocular injury and visual dysfunctions, despite use of ballistic eyewear during the event. Longitudinal evaluation of visual outcomes is recommended in this population.

Learning Objectives

1. Identify visual perception impairments in Veterans with traumatic brain injury from blast exposure.
2. Categorize common neurological dysfunctions of the visual system in this group
3. Analyze structural changes in the visual pathways of patients exposed to blast forces.

List of Participants and Their Roles in the Abstract

Name: John Patrick Kirby

Organization: Washington University in St Louis School of Medicine

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Penetrating trauma wounds can be organized as low energy (such as knife wounds) to high energy (bullets) both in terms of diagnoses and treatments. We will then move from bullet energy transfer injury to blast injuries.

Blasts will then also bring in both burns and tissue contamination/infections

Learning Objectives

1. Understand the key diagnostic and therapeutic challenges for low kinetic energy transfer mechanisms (lacerations, stabbings) to high energy mechanisms (low velocity civilian handguns to high velocity military weapons to blasts)
2. Analyze management techniques for these traumatic wounds as well as wounds that can have heavy contamination problems such as blasts and burns
3. Integrate frameworks for management as well as information about further professional development via established courses such as those offered by the military, the ACS, the SCCM and the ABA....as well as the efforts through FISIG create more accessible content for better care and attendees can see where else to go for their development.

List of Participants and Their Roles in the Abstract

Name: Linda Cowan

Organization: VA

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Pressure ulcer prevention (PUP) is used as a quality of care indicator and is a top priority for all health care facilities. How is your facility doing? Where do health care facilities start with PUP strategies? What should the focus of pressure ulcer prevention efforts be directed at? Who should be involved? Do providers want more PUP education? How should this education be delivered? Does recent research or the scientific literature have anything to contribute to PUP efforts? What are some helpful tips to making a successful PUP program? These questions (and answers) will be the focus of this “Pressure Ulcer Prevention Revisited” general overview discussion.

Learning Objectives

1. Identify at least 3 components of successful PUP programs
2. Describe important findings from recent PUP research
3. Describe methods of PUP education that providers may be more inclined to complete
4. List essential members of PUP teams

List of Participants and Their Roles in the Abstract

Name: Tammy Savoie

Organization: AFCENT/SG

Role(s): Submitter; Non-Presenter

Name: Abdullah A. Al-Sabah

Organization: Medical Services Authority, Kuwaiti  
Army, Ministry of Defense, Kuwait

Role(s): Presenter

Name: Ali Zankawi

Organization: Jaber Al Ahmad Armed Forces  
Hospital

Mubarak

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Background:

Real-world injuries in a FTX have been identified as a major burden to the armed forces due to their impact on military personnel's health and readiness.

Objective:

To provide surveillance data for a current problem in order to identify areas that need improvement and target interventional measures.

Method:

Retrospective data collection of real world injuries amongst GCC military personnel during a FTX.

Results:

1096 real world cases (0.02% of participating military personnel)

Of which: 429 (39%) seen in the 1<sup>st</sup> line

394 (36%) seen in the 2<sup>nd</sup> line

273 (25%) seen in the 3<sup>rd</sup> line

The peak number of cases were seen during the first day of the FTX.

252 cases (23%) were evacuated to Jaber Al Ahmad Armed Forces Hospital (JAAFH) for emergency care or specialized treatment. It was found that the majority of these cases, 78 (31%), required orthopedic care. On the other hand, the least required specialty was endocrinology which received only 5 (2%) cases.

Conclusion:

The lesson learned from Desert Shield 9 FTX is the need to improve physical and mental conditioning amongst our military personnel before a FTX.

In addition, the high number of real-world injuries confirms that the military personnel are exposed to numerous work environment hazards. Hence comes the need for a greater role of occupational medicine to decrease these hazards.

Recommendations:

It is advised that similar studies be performed in other regions in order to compare results and have a better picture of the differences in work environment hazards and health care specialties required.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Sidney Hinds

Organization: Defense and Veterans Brain Injury Center Defense Center

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

A DoD working group was asked to develop concept for an overall system of care for Traumatic Brain Injury. The goal was to align, coordinate and integrate existing components of MHS TBI care, research and education across the continuum of care (Prevention, Screening/ Identification, Diagnosis, Treatment, Rehabilitation & Reintegration) across all TBI severities for a more standardized and efficient pathway of care.

The Defense and Veterans Brain Injury Center role, as owner of the TBI Pathway of Care (pending SMMAC approval), will be to standardize evidence-based clinical care across the pathway, provide oversight for care pathway implementation, standardize outcome measures and reporting, monitor standard clinical practice adherence, maintain visibility of all clinical and translational research in TBI, and to assess outcomes of research and identify new research requirements. This will be done with the input of a DoD-wide TBI Advisory Group being chartered.

Learning Objectives

1. All sites of care, including the Intrepid Spirit sites, will come under the command and control of their market MTF
2. There will be standard categorization of TBI care across Service MTF TBI capabilities/clinics
3. DVBIC HQ will be the MHS TBI Pathway of Care owner for clinical, research and education and training:
  - o Define and disseminate proven practices, conducts implementation oversight and monitoring of outcomes, and develops translation strategy and implementation guidelines
  - o Formally enact new responsibilities through the established chain of command
  - o Informally enact new responsibilities through partnerships and working groups

List of Participants and Their Roles in the Abstract

Name: David J Smith

Organization: Department of Defense

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

This session will review the scope and components of the GHE enterprise using examples from our efforts to improve visibility and coordination within DoD, across the inter-agency, and among civilian agencies. Attendees will gain an understanding of the components of DoD's Global Health Engagement Enterprise along with the work of the Global Health Working Group. This working group allows representatives from OSD (specifically, Health Affairs), the Defense Health Agency, the Joint Staff, and the Services to address guidelines for the provision of care in stability and humanitarian operations, to identify professional capabilities required for those operations, and to develop ways to measure and document the effectiveness of global health engagements. The Working Group has three subcommittees. The Provision of Care subcommittee developed a multi-dimensional framework to guide the scope of global health engagements that is based on legal, ethical, and cultural considerations. During this session, attendees will review issues related to the provision of care, including licensing and credentialing considerations for military health providers performing direct care and mentoring missions overseas. The Capabilities subcommittee is developing education and training requirements to support the Global Health Engagement mission. The subcommittee's recommendations will be discussed. Finally, the Measures of Effectiveness subcommittee will be presented in a separate presentation.

Learning Objectives

1. understanding of the components of DoD's Global Health Engagement Enterprise along with the work of the Global Health Working Group
2. Summarize guidelines for the provision of care in stability and humanitarian operations
3. identify professional capabilities required for those operations, and to develop ways to measure and document the effectiveness of global health engagements

List of Participants and Their Roles in the Abstract

Name: David J Smith

Organization: Department of Defense

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Military Health System (MHS) undertook a review of its direct care system that was focused on the sustainment of critical provider skills used in the deployed environment. The Project included an assessment of the current ability of the MHS to support these skills and developed options that would maximize clinical skills sustainment in the future. The project was founded on three parameters: the size and composition of the uniformed medical force; provider productivity and productivity benchmarks; population demographics and associated healthcare demand. We developed a model to use the three parameters to optimize the placement of healthcare specialties to maximize opportunities for skills maintenance. The presentation will address the Study methodologies and recommendations.

Learning Objectives

1. Analyze critical provider skills for the deployed environment
2. Recognize the development of MHS options to maximize support for skills maintenance for healthcare demands
3. Recognize recommendations developed from a three part study including the size and composition of the uniformed medical force; provider productivity and productivity benchmarks; population demographics and associated healthcare demand.

List of Participants and Their Roles in the Abstract

Name: Douglas Robb

Organization: Defense Health Agency

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

What is the Defense Health Agency (DHA) and what role does it play in the Military Health System (MHS)? This session will answer those questions and more as the DoD embarks on a fundamental change to its healthcare system.

The DHA is a joint, integrated Combat Support Agency enabling the Army, Navy, Air Force, and Marine Corps medical services to provide a medically ready force and ready medical force to Combatant Commands in both peacetime and wartime. This new agency attained initial operating capability (IOC) on 1 OCT 2013 (FOC in OCT 2015) at the direction of the Deputy Secretary of Defense (DSD) as part of the implementation of MHS Governance Reform. The DSD directed that the MHS must operate, “in the same manner that medical support of operational forces has been so effectively provided in our recent conflicts: jointly. We must attain greater integration of our direct and purchased healthcare delivery systems...”

In support of an integrated, affordable, and high quality military health service, the DHA directs the execution of ten joint shared services to include the health plan (TRICARE), pharmacy, health IT, research & acquisition, education & training, public health, medical logistics, facility management, budget resource management, and contracting. As of August 2014, the DHA has attained IOC for all ten shared services with the DHA achieving FOC NLT 1 Oct 2015.

This presentation will outline the MHS Governance Reforms and specifically the current and future DHA plans to more fully integrate the MHS enterprise. Through these efforts the MHS will continue to accomplish its quadruple aim: to assure medical readiness, improve the health of our people, enhance the experience of care, and lower our healthcare costs.

Learning Objectives

1. Restate role of Defense Health Agency in the Military Health System
2. Recognize the transition of Department of Defense fundamental healthcare
3. Describe the Military Health System's aim to assure medical readiness, improve population health, enhance the experience of care and lower healthcare costs.

List of Participants and Their Roles in the Abstract

Name: Nicolas Granger-Veyron  
Organization: French Military Health Service  
Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The first and foremost mission of the French Military Health Service (SSA<sup>[1]</sup>) is to ensure the medical support of the troops deployed on the theaters all over the world.

The French Defense White Paper confirms that to do so, the SSA must keep its capability to deploy a complete and autonomous chain of medical support from the point of contact to homeland hospitals. This chain starts at the point of wounding and stops at the end of the rehabilitation of the wounded soldiers.

In France, although the military clinics are principally dedicated to the troops, the 9 military hospitals and medical centers are opened to the civilian population and integrated to the National Sanitary System. Thus, the French Military Medical Service lives in both Health and Defense Worlds.

For 20 years now, those two worlds has gone through an increasing number of transformations ; sometimes in opposite ways. The SSA has got used to those evolutions but today he must change is model in order to be able to take up the challenges of the XXI century.

That's why the French Ministry of Defense asked the French Armed Forces Surgeon General to plan and apply a new strategic plan.

This plan called "SSA 2020" is based on three axes :

- the "Focusing" on the mission, including a new balancing among the components of the Military Medical Service particularly between the Units Medicine and the Military Hospitals;
- The "Opening" which the main principle is for the French Military Health Service to be considered by the French National Health System as a fully engaged actor and not anymore as an auxiliary one;
- The "Simplification" of the governance particularly within the command structure of the French Military Health System and its regional branches.

After one year dedicated to the design of the Strategic Plan, its apply phase has started at the beginning of 2014 and will be follow by its concrete application as from 2015.

<sup>[1]</sup> SSA : Service de santé des armées

Learning Objectives

1. Discuss the integration of the French Military Medical Service activity in both the civilian health and defense health worlds
2. Summarize the French Armed Forces Surgeon Generals model plan SSA2020 for transformations to meet health care transformations of the 21st century.
3. Describe the three axes of SSA 2020 including Focusing on the mission to ensure medical support, Opening French Military Health Service as a fully engaged entity, and Simplification of the command structure of the French Military Health System.

List of Participants and Their Roles in the Abstract

Name: MILLIAT GWENNAELLE

Organization: SSA

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The main role of the French Military Health Service is the army's support. The battalion's Medical officer physician has to ensure a lot of role to satisfy this mission.

After 9 years at the civilian faculty of medicine and a specific military medicine formation at the EVDG (Ecole du Val de Grâce, Military Health Service's High School), the physician will have many responsibilities. First he has to be a good generalist practitioner. This aims sometimes for them to return to university to receive complementary formation in several purviews (emergencies, sport, tropical medicine, prevention medicine...). Then, they maintain their operational condition every time with specific formation of the SSA ( MEDICHOS, CITERA on the military hospitals, MASCAL exercises in their unit...) and a specific sport training. Often, they are deployed in mission with French battalion, where they provide current care, emergency care, medical support on battlefield, and local population care. They also deliver informations to soldiers about mission's health risks, combat's first aid and to the military medicine students who sometimes come into battalion infirmary. Finally, to maintain an equal level to civilian doctors, they are sought for the realization and publication of articles in civilian medical journals of medicine.

This versatility will be all the more necessary that the French Military Health Service, for 2020, will undergo many mutations involving greater responsibility to these physicians, including a key role in relations with civilians and International actors of healthcare.

Learning Objectives

1. Recognize emerging roles of medical officer physicians in both military and civilian communities
2. Advise on mission health risks while integrating general practioner formulation with emergency, sport, and tropical medicine to meet deployed missions
3. Maintain current civilian physician levels to advise on public and international healthcare situations

List of Participants and Their Roles in the Abstract

Name: Glendon Diehl

Organization: Center for Disaster and Humanitarian Assistance Medicine

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Abstract: The Military Health System, the Combatant Commands, and the Military Services have no standard means to determine the value of Global Health Engagements (GHEs). Consequently, the National Defense Authorization Act for 2013 mandated that the Assistant Secretary of Defense for Health Affairs “shall develop a process to ensure that health engagements conducted by the Department of Defense are effective and efficient in meeting the national security goals of the United States.” The Combatant Commands and the Services have started identifying GHE capability gaps and related measures of effectiveness (MOEs) to help determine the value of GHE activities. The MODEL study addresses the legislative requirement and asks hypothesis-based questions regarding the value of DoD’s GHE efforts. MODEL measures GHE effectiveness at the strategic and operational levels by leveraging tactical data. MOEs generally focus on strategic, health, and readiness data compared against tactical measures of performance (MOPs) derived from authoritative security cooperation databases such as the Theater Security Cooperation Management Information System, the Overseas Humanitarian Assistance Shared Information System, and Overseas Loans and Grants database of the U.S Agency for International Development. MODEL’s analytic process involves regression analysis to determine statistically significant effects of MOP data on MOEs. Senior leaders could use the output of MODEL to determine how and where to apply GHEs in the future. The presentation will describe study efforts to standardize econometric assessment methods, provide an overview of study results, and discuss challenges and opportunities.

Learning Objectives

List of Participants and Their Roles in the Abstract

Name: Patricia R. Hastings

Organization: USArmy MEDCOM HQ

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Abstract: This presentation examines the concepts and uniqueness of military medicine when used as an engagement tool for the Combatant Commanders. While the military has used medical care and interventions to improve relationships and build trust, these actions are not to be taken lightly or without careful consideration of second and third order effects. Global Health Engagement involves Ways, Means and Ends. The ways are security, stability and partnership activities. The “means” for the “ways” are Military to Military Medical engagement, Military to Civilian to Medical support and when required Disaster Relief. Support in these areas optimizes other militaries’ abilities to assist in the global arena and decrease suffering and improve conditions for countless numbers of people harmed by natural and/or man-made disasters. In the final analysis these ways and means contribute to the “Ends” which are achievement of our national security objects, giving us a safer world, assist us in defining and developing the needs or requirements of our future forces, and finally renewing the military commitment to providing a secure world in which we can raise the standards for all peoples.

Learning Objectives

1. Review the history and use of military Global Health as an engagement tool
2. Discuss methods of engagement
3. Review the importance of collection and dissemination of lessons learned
4. Understand the imperatives and strategic limitations of military Global Health engagement

List of Participants and Their Roles in the Abstract

Name: Janet R. Kahn

Organization: Peace Village Projects, Inc.

Role(s): Submitter; Presenter

Name: William B Collinge

Organization: Collinge and Associates

Role(s): Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

VA and DoD concerns about overmedication prompt increased interest in evidence-based non-pharmacological interventions that may support long-term reintegration and well-being of veterans after service in Iraq and Afghanistan. Mission Reconnect (MR) is an evidence-based, self-directed instructional program of complementary mind- and body-based therapies delivered online and via mobile device app for use by veterans and their partners (spouse, significant other) to support physical, mental, and relationship health. Instruction is provided in partner massage and other mind-body and contemplative practices for use individually and as a couple. The program can be accessed anytime, anywhere, and used alone or as a complement to formal services. In this presentation we describe the MR program and present results of a recently completed, NIMH-sponsored, four-site and four-arm randomized controlled trial with a sample of 160 veteran/partner dyads representing all military branches. Subjects were assigned to either (1) MR alone, (2) MR + PREP for Strong Bonds (PSB), (3) PSB alone, or (4) waitlist control, for a four-month study period. Significant improvements were seen in measures of PTSD, depression, sleep quality, perceived stress, resilience, self-compassion and pain for subjects assigned to MR groups. Utilization patterns of the 12 different MR practices, predictors of outcomes, experiences regarding moral injury, and dissemination models will be discussed.

Learning Objectives

1. Describe rationale for non-pharmacological interventions for this population
2. Describe rationale for autonomous, self-directed dyad-based interventions
3. Discuss how an evidence-based, self-directed program may complement or enhance established mental health services for veterans and their family members

List of Participants and Their Roles in the Abstract

Name: Terry Moulton

Organization: Navy Medical Center Portsmouth

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

One of the key aspects of maturing the revised governance for the Military Health System (MHS) is the Department's approach to coordinating care in geographic markets served by more than one Military Service's medical treatment facilities. As our principal readiness and training platforms, the enhanced Multi-Service Markets (eMSMs) will serve as the centerpiece of clinical and business transformation in the MHS.

Learning Objectives

1. Understand the evolution of eMSMs to the current state that actively integrates management across enterprise to improve readiness, clinical management and business performance. The integration of the Defense Health Agency's shared services and focus on integrated market management will set the standard across the MHS
2. Describe the eMSMs leadership role in the market by providing oversight and management to meet targets established in the five-year business plans focusing on direct care recapture, increased provider productivity targets, and market penetration by product line.
3. Describe the eMSMs leadership role in identifying, refining, and sharing best practices within the market, the role of the market manager in resolving resource, staffing, and administrative disputes, providing management and oversight to meet the Service needs for maintaining medically ready forces and a ready-medical force.

List of Participants and Their Roles in the Abstract

Name: Joseph Marshall

Organization: Defense Health Agency

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The Military Health System (MHS) has a primary focus on the core mission of creating an integrated medical team that consistently provides optimal healthcare to over 9.6 million beneficiaries. To do this, the MHS must support a collaborative governance process to coordinate and advocate for DoD-wide budget and resource management programs and initiatives to promote the utilization of budgeted funds in a cost-effective manner, increase reimbursements, and improve financial transparency of expenditures made in support of the MHS mission. Challenges exist to commonly report cost accounting transactions across the MHS, resulting in difficulties understanding, assessing and improving financial management processes, reporting, and decision-making. As first steps toward achieving our aim of financial transparency and MHS enterprise-wide joint business solutions, the DHA has embarked on collaborating with the Services in developing a common cost accounting structure, developing and deploying a standard billing and collection system for the MTFs, and transitioning the National Capital Region (NCR) Medical Command to the Army's accounting system.

Learning Objectives

1. Attendees will gain an understanding of the importance of financial systems standardization
2. Describe first-steps taken to achieve standardization in the MHS
3. Engage in informed discussion concerning other financial standardization opportunities

List of Participants and Their Roles in the Abstract

Name: Richard Thomas  
Organization: Defense Health Agency  
Role(s): Submitter; Presenter

Name: Mary Kaye Justis  
Organization: Defense Health Agency  
Role(s):

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

Achieving an integrated health care delivery system that is focused on optimizing a ready medical force capable of supporting a wide-range of contingencies across the spectrum of military operations can be supported by optimally managing care at the Purchased Care-Direct Care interface. The cornerstone of these efforts is achieved by leveraging our enhanced multi-Service markets (i.e., those markets containing MTFs from more than one Service) that optimizes the business case and readiness models. Some examples of short term integration initiatives include improved care management, recapture of MTF workload from the Purchased Care System, more efficient access to care, and leveraging an integrated healthcare delivery model that supports provider currency and competency. The long term objective for an integrated health delivery system is to optimize the enhanced Multi-Service Markets to serve as the centerpiece of clinical and business transformation in the MHS.

Learning Objectives

1. The participant will understand the challenges of integrating the healthcare delivery systems the various components of the Military Health System (MHS) to manage care at the Purchased Care-Direct Care interface
2. The participant will understand the relationship between military provider currency and competency and the value to the nation of a ready medical force as a force multiplier
3. The participant will develop an understanding of MHS efforts to leverage the enhanced Multi-Service Markets as driving change in the MHS by managing resources, and recapture opportunities to optimize a ready medical force.

List of Participants and Their Roles in the Abstract

Name: Rolf von Uslar

Organization: BwMedServHQ

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The idea to merge the medical corps of the military services has been discussed for decades in most western armed forces. However, only few nations put this into practice. 12 years ago, Germany (DEU) has merged most of its medical corps under one joint medical command. This implies that the DEU Surgeon General is a commander with all responsibilities as those of Army, Air Force Navy and Joint Service Support.

Within the last 12 years with both a significant increase of deployments worldwide and transformations of the frameworks for health service in Germany, experiences could be gained for this concept.

The analysis of the pros and cons is based on the perspective of intra-jointness and inter-jointness. Criteria for the assessment are effectiveness (mission performance) and efficiency, interoperability (with fighting forces/ within the medical corps), medical C2 as well as aspects of attitude and esprit de corps.

The results indicate a significant increase in all criteria for the intra-jointness, whereas in the field of inter-jointness some challenges have been recognized. However, the balance strikes significantly in favor of the benefits of a joint medical command.

Learning Objectives

1. The audience will understand the intra- and interservice effects that must be taken into account while changing the organization of a Military Medical Service
2. The participants will be able to highlight key points from the German Armed Forces' 12 years of experience with a Joint Medical Command.
3. The audience will know that an appropriate balance strikes significantly in favor of positive effects compared to challenges in a joint organization.

List of Participants and Their Roles in the Abstract

Name: Alasdair Walker

Organization: Royal Navy

Role(s): Submitter; Presenter

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The recent joint operations in Iraq and Afghanistan have galvanized the already strong bond between the US and UK from both military and medical perspectives. Nowhere has this relationship been stronger than in the Joint Role 3 Hospital, Camp Bastion. Lessons have been relearned from previous campaigns, but new advances have led to the highest survival rates experienced in conflict. These advances include the training of our ground medics in minimizing blood loss; rapid transport of the injured with delivery of physician-led care on air assets; the introduction of tranexamic acid early in the resuscitation pathway; a change in the ratios of blood component therapy; and the maturation of our Joint Trauma Systems with subsequent influence over our treatment guidelines. Overall this has led to a responsive learning environment from point of wounding to rehabilitation.

There is, no doubt, risk of forgetting lessons learned in contingency operations, and we must ensure that there is a “Keeper of the Scrolls”. Close collaboration through our respective Joint Trauma Systems and combined research will continue through working groups under the Presidential & Prime Ministerial Task Force. Collaborative field exercises, such as Atlantic Serpent conducted just this past October in the UK, will preserve and advance lessons learned from combining US and UK Army field hospital units in conjunction with RAF and USAF elements. Atlantic Serpent was the first step in meeting our post Afghanistan challenge to ensure ongoing interoperability.

Learning Objectives

1. Summarize the collaboration of joint trauma operations between the US and UK
2. Recognize the collaborative lessons learned in field exercises of the combined US and UK Army field hospitals
3. Summarize the many advances of Joint Trauma Systems which has led to a responsive learning environment from the point of wounding to rehabilitation

List of Participants and Their Roles in the Abstract

Name: Todd Rasmussen

Organization: US Combat Casualty Care Research Program

Role(s): Submitter; Presenter

Name: Kirby Gross

Organization: Joint Trauma System US Army Institute of Surgical Research

Role(s):

Abstract Content, Presented in Order Requested from Submitter

Abstract Body

The burden of injury from the wars in Afghanistan and Iraq has caused the MHS to respond like never before to provide cutting edge care to service personnel injured in combat. This response has included the new and coordinated Joint Trauma System Defense Center of Excellence (JTS DCoE) and the Joint Combat Casualty Care Research Program (CCCRP). Although the U.S. did not go to war with these capabilities, the JTS DCoE and CCCRP have emerged as an effective continuously learning health system which has reduced the case fatality rate in injured service personnel and translated findings to the care of civilians injured in violent attacks. In this model the JTS DCoE identifies clinical observations or gaps in care (current and future) for the CCCRP which endeavors to produce knowledge and material solutions to resolve those gaps. The JTS DCoE then serves to vet and implement results from research into its cycle of performance improvement including its evidence-based, clinical practice guidelines. The JTS DCoE and CCCRP leverage strategic partnerships including those with the Uniformed Services University, civilian academia, industry, international allies and other federal agencies. The system also provides actionable information and material solutions to shape education and training and to inform operational decisions (current and future). To avoid loss of the lessons from war and the sacrifices of a generation will require a sustained investment and focus on military-unique priorities including the JTS DCoE and the CCCRP as well as pursuing related opportunities for synergy within and outside the MHS.

Learning Objectives

1. Describe the inception of the Joint Trauma System Defense Center of Excellence (JTS DCoE) and the Joint Combat Casualty Care Research Program (CCCRP)
2. Explain how JTS DCoE identifies gaps in care for CCCRP to produce solutions to resolve gaps
3. Recognize strategic partnership leverage across military, civilian, industry, international allies and federal agencies to shape education and training

List of Participants and Their Roles in the Abstract

Name: Richard Thomas  
Organization: Defense Health Agency  
Role(s): Submitter; Presenter

Name: Mary Kaye Justis  
Organization: Defense Health Agency  
Role(s):

Name: Karen Guice  
Organization: Department of Defense, Office of Health Affairs  
Role(s):

Name: Terry Prince  
Organization: Defense Health Agency  
Role(s):

Abstract Content, Presented in Order Requested from Submitter  
Abstract Body

The U.S. health care environment is experiencing a period of unprecedented change. Care models, payment models, and effectiveness measures are all changing and interacting simultaneously. As an integral and important part of national health care resources, TRICARE will both influence and be impacted by these changes. The TRICARE Program cannot and will not remain static in this changing environment. It must transform to maintain its ability to assure a medically ready force and a ready medical force. Optimizing the transformation will require thoughtful inputs from throughout the Military Health System and partnering with outside experts. The transformation process has begun. The Panel will provide an update about current transformation efforts, what is known to likely occur, and what is still unknown. The audience will be invited to participate in envisioning the transformation path.

Learning Objectives

1. Interpret the need for transformation in the TRICARE program
2. Recognize expected changes in care models, payment models and effectiveness measures
3. Collaborate with peers to create a vision for transformation path.

1. Catherine Zebrowski — Submitter; Presenter
2. Linda Lawrence
3. David J Smith
4. Daniel Kral

Telehealth projects and programs have been conducted in varying degrees by the Army, Navy and Air Force for approximately two decades. The Army has the most developed telehealth program within DoD, reporting 35,084 synchronous and asynchronous telehealth encounters in FY2012. Eighty-six percent of telehealth encounters conducted outside the operational theater of war and 55% conducted in operational settings were reported to be telebehavioral. The Air Force reports a fledgling program with video-conferencing connectivity at 75 Military Treatment Facilities but a well-developed synchronous case review and education program. Navy reports a primary focus on ship-to-shore teleradiology, with a commitment to development a more comprehensive telehealth program in the near future.

At the Enterprise level, a movement towards centralization and standardization of Service telehealth efforts has been underway for the last several years. This move was spurred by a tasking by the Office of the Secretary of Defense, Cost Assessment and Program Evaluation (OSD CAPE) to assess the current state of telebehavioral health in the Military Health System (MHS) and by increased interest by the the Assistance Secretary Defense of Health Affairs (ASD(HA)) in a department-wide telehealth capability. The last two years have seen the development of a gap analysis and initial strategic plan for telehealth growth in the MHS and a Strategic Telehealth Forum called by the ASD(HA) to chart the future of telehealth development. The latter led to formation of a Telehealth Integrated Product Team (TH IPT) which has worked to stand up an Enterprise Telehealth function in the MHS.

This lecture will cover the process by which the TH IPT developed a "programmatic solution" for telehealth in the MHS in order to share knowledge with other federal agencies interested in developing an integrated telehealth program.

**Question:** Learning Objectives

**Response**

1. Explain the process by which the Telehealth Integrated Product Team developed an Enterprise telehealth capability for the Military Health System.
  2. Cite GAO guidance that influenced the process of telehealth program development and the context in which this development took place in the Military Health System.
  3. Determine if the MHS model is applicable to telehealth development efforts in the learner's agency.
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## *Education & Training Directorate: Tri-Service Foundation...Tri-Service Sustainment*

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Presenter: Brig. General Robert I. Miller, MD

Abstract: The DHA Education & Training Directorate was established as a “shared service” in Aug 2014. The E&T Directorate is organized to ensure standardized and efficient joint medical solutions across the Military Health System (MHS) for both accession and sustainment training.

The Professional Development, Sustainment, and Program Management division will oversee MHS training in Leadership Development (Joint Medical Executive Skills Institute (JMESI)), Operational Training (Defense Medical Readiness Institute (DMRTI)), and Enlisted Training (Medical Education and Training Campus (METC)). It will also coordinate Graduate Medical/Dental Education and Officer/Enlisted/Civilian Professional Development.

The Academics Review and Policy oversight division will ensure standardized metrics are developed for the assessment of training. Develop MHS Policy and Compliance for education and training and strategically look to joint eLearning solutions.

In the future the Military Medical Education Consortium will seek to affiliate with a number of organizations to facilitate the delivery of quality instruction. Initially it will include METC, DMRTI, JMESI NMETC, AMEDDC&S and AETC/SGU but will grow to include: USUHS, CCAF and multiple civilian partners.

Learning objectives:

1. Recognize the DHA Education & Training Directorate was established to ensure standardized and efficient joint medical solutions across the Military Health System (MHS)
2. Interpret the professional development, sustainment, and program management division to oversee Medical/Dental Education and Officer/Enlisted/Civilian Professional Development
3. Anticipate the Military Medical Education Consortium to seek affiliate organizations, including military and civilian partners, to facilitate and deliver quality medical instruction moving forward.

## *Medical Simulation: This Can't Be Real*

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Presenter: LTCOL Shad Deering, MD

Abstract: Medical simulation is critically important to ensure optimal outcomes for our patients and is part of every level of medical training and care covered by the MHS. It reaches across all specialties and services and enables the best possible care to be delivered in both deployed and non-deployed settings, expanding our reach and the safety of those we serve. At the current time, though there are many examples of outstanding, nationally recognized simulation programs within the MHS, overall medical modeling and simulation efforts and policy are stove-piped within individual branches and organizations and formal collaboration is limited. These disconnects result in a less than optimal use of finite resources. In recognition of this, the Assistant Secretary of Defense (Health Affairs) has initiated serious high-level efforts to address medical modeling and simulation in order to take advantage of ready access to individuals and agencies with functional medical simulation expertise. The goal of this effort is to create an enterprise-wide solution for the present and future MHS simulation efforts. It is believed that by the creation of a formal medical simulation working group and integrated simulation-related acquisition practices, the entire organization can reduce waste and better utilize scarce resources. And, most importantly, medical simulation will be able to reach its full potential to improve outcomes for our patients.

Participants will be able to:

1. Describe the current use of medical simulation within the MHS.
2. Understand how medical simulation can positively affect patient outcomes.
3. Be able to recognize areas where medical simulation may be implemented at their institutions and in their units.

## **Telehealth: Global Reach...Global Care**

Name: Coleen Rye, PhD, MS, BA

Name: Daniel Kral, MSMOT

Abstract: Telehealth is especially relevant to the MHS as a global healthcare system supporting a unique set of missions. Telehealth enables care and mentorship to be rapidly and efficiently delivered throughout the enterprise, ensuring our providers remain connected and our population receives care in even the most remote locations on Earth. Additionally, telehealth supports our readiness mission to provide more complex care in the operational setting as well as allowing our clinicians to practice at a more sophisticated level in the MTFs, improving their clinical competency. This presentation will describe some of the Department's telehealth programs, research activities, deployment initiatives, and the future for telehealth in the MHS

Learning Objectives:

Understanding of the available telehealth programs provided by MHS

Apply methods presented to provide telehealth to remote populations

Discuss deployment initiatives for future telehealth missions

## *Joint Force 2020 Requirements: Joint Concept for Health Services*

Presenter: MG Nadja West

Abstract: This presentation will broadly describe how joint medical forces will operate across the range of military operations in the future security environment, and identify capabilities required to implement the concept. Strategic guidance, affirmed in The Capstone Concept for Joint Operations: Joint Force 2020 (CCJO: JF2020), addresses and anticipates requirements to project power globally, operate in austere environments, and maintain readiness with fewer resources. It cites flexible formations and better integration as key to successful globally-integrated operations. The medical community's performance in Iraq and Afghanistan provides valuable insight on the types of changes and capabilities required for future medical support operations. It demonstrates an unprecedented degree of collaboration and innovation among the members of the military medical community.

Complexity, cost, and the need to support globally-integrated operations require a new concept for the provision of health services to the Joint Force. The concept must identify capabilities required to project medical support globally, support operations in all environments, and maintain readiness with fewer resources. It will also incorporate lessons from over twelve years of military operations in producing a more flexible, integrated approach to health services.

Objectives:

Review Strategic Guidance and the Future Operating Environment

Discuss the central idea of a Joint Concept for Health Services

Discuss the framework for health-related capability gaps

## **DHA HIT Directorate: Joint Enterprise Standardization**

Presenter: Mr. David Bowen, Director of DHA Health Information Technology Directorate

Abstract: This presentation will review the background, stand-up and current operation of the IT Shared Services organization in the new Defense Health Agency. It will describe how HIT is organized to support its goals of: management consolidation; infrastructure standardization/ consolidation and application portfolio rationalization. It will then present current strategies to achieve these goals and detail results achieved to date. It will also address issues confronted such as personnel, cultural, technical and financial, how these have been remediated and what lessons have been learned. Examples of current and proposed initiatives such as infrastructure consolidation and information assurance centralization will illustrate the benefits that the organization expects to achieve from joint strategic standardization. The presentation will conclude with a discussion of steps to take the organization from Initial Operating Capability (IOC) to Full Operating Capability (FOC), expected to occur in 2015, and the additional benefits expected from those steps.

Review the background, stand-up and current operation of the IT Shared Services organization in the new Defense Health Agency

Describe how HIT is organized to support its goals of: management consolidation; infrastructure standardization/ consolidation and application portfolio rationalization

Examine examples of current and proposed initiatives that will illustrate the benefits that the organization expects to achieve from joint strategic standardization

**DoD Deployment to West Africa; The Military Medical Department Ebola Virus Experience**

Name: TBD

Abstract: Early Bird Session TBD

## **Global Health Security**

Name: David J Smith, MD

Moderator: David A. Tarantino, Jr., MD, MPH, CAPT MC USN, dtarantino@cdham.org

Abstract: It is becoming increasingly clear that with increasing globalization comes an increased intersection of global health and security. The US government is increasingly engaged in global health efforts with implications for national and global security. The Department of Defense has recognized the importance of global health for security cooperation and force health protection. Reflecting these developments, the Obama Administration has launched an ambitious Global Health Security Agenda. This presentation will discuss principles and practices at the nexus of global health and security and the US Global Health Security Agenda.

Learning Objectives:

- 1) Participants will understand the nexus of global health and security
- 2) Participants will understand USG global health efforts and their relevance to national and global security
- 3) Participants will understand the key elements of the US Global Health Security Agenda

## *Global Health Threats and Trends and the Global Health Security Agenda*

Name: Kevin Russell, MD, MTM&H

### Learning Objectives

1. Gain a better understanding of the many ways the US military has contributed to Global Public Health, and name at least two concrete examples
2. Have an appreciation that health instability can create regional instability
3. Be able to describe why global health threats are a threat to the US.
4. Be able to name the three words that summarize the Global Health Security Agenda: "Prevent, Detect, Respond"
5. Have a better understanding how DoD programs can also benefit the multi-sectoral GHSA

**One Health – Human/Animal/Environment Interface in Global Health**

Name: John Poppe, BG VC USA

Name: Joseph Anelli, DVM - USDA

1. Describe the relationship between animal agriculture and public health with regard to impact, outcomes, stakeholders and partners
2. List to two broad categories of activities that fall under Global Veterinary Engagement
3. Explain how Global Veterinary Engagement concept can be applied to various military engagement models

## *One Health' in Practice*

Name: TBD

Moderator: Dave Tarantino, MD, MPH, CAPT MC USN

Abstract: The 'One Health' concept recognizes the importance of the human-animal-environmental interface in global health. Recent events such as the Ebola epidemic have highlighted this essential relationship. Review of 'One Health' in practice lessons and challenges can inform future efforts. This presentation will discuss recent, real-world application of the 'One Health' concept in the field, including the Ebola epidemic response.

Learning Objectives:

- 1) Participants will understand the 'One Health' concept
- 2) Participants will be able to apply human-animal-environment interface principles to global health efforts
- 3) Participants will be able to apply key lessons and challenges from recent application of 'One Health' practices in the field

**Cooperative Bio-Risk Management: A New Paradigm for Global Health Engagement**

Name: Steve Prior, USUHS/CDHAM;

Name: Charles Beadling, Col (Ret) MC USAF

## *Education/Training/Competencies in Global Health*

Presenters: Charles Beadling, MD  
Roberto Nang, MD, Col MC USA  
Edwin Burkett, MD, Col MC USAF

Abstract: There is increasing recognition of global health as a professional specialty. Central to enhancing professionalism in global health is identification of core competencies and development of targeted education and training for global health professionals. This presentation will discuss emerging competencies for global health professionals and education and training approaches and priorities to enhance professionalism.

### Learning Objectives:

- 1) Participants will understand core competencies required for global health practice
- 2) Participants will understand key education and training approaches and priorities to enhance global health professionalism
- 3) Participants will understand key global health education and training requirements for non-health professionals engaged in the global health arena

## **Strategic Planning in Global Health Engagement**

Name: David Tarantino, CAPT MC USN - USUHS/CDHAM

Name: Rudolph Cachuela, Col MC USAF - SOUTHCOM

Name: James Cummings, COL MC USA-AFHSC/GEIS

Abstract: Strategic planning is essential to the optimal conduct of global health engagements. Strategic planning should be preceded by a review of the operating environment and should include consideration of guiding policy and principles. Key components of strategic planning include mission, vision, goals, and objectives. This presentation will discuss key principles and practices of strategic planning in global health.

### Learning Objectives:

- 1) Participants will be able to apply Strategic Planning concepts to global health engagements
- 2) Participants will be able to conduct a review of the operating environment and guiding policy and principles
- 3) Participants will be able to develop mission, vision, goals, objectives for global health engagements

## **Health Context, Culture, and Communication in Global Health**

Presenter: David A. Tarantino, Jr., MD, MPH, CAPT MC USN, dtarantino@cdham.org

Abstract: The health context represents the cumulative influence of geo-political, socio-cultural, health culture, health determinants, and health systems considerations. Understanding of the health context is essential to the optimal conduct of global health efforts. Health culture is a subset of general culture and represents health-related cultural beliefs and practices that influence health behavior. Understanding of health culture is essential to the conduct of effective global health efforts. Cross-cultural communication is a particular challenge in global health efforts and requires careful consideration. This presentation will discuss health context, culture, and communication principles and practices as they relate to global health efforts.

### Learning Objectives:

- 1) Participants will be able to apply health context considerations to global health efforts
- 2) Participants will be able to apply health culture considerations to global health efforts
- 3) Participants will be able to apply cross-cultural health communication considerations to global health efforts

## **The Disaster Preparedness Program (DPP): A New Model for Sustainable Capacity-Building Through Civil-Military Collaboration**

DPP is a partnership between The Center for Disaster and Humanitarian Assistance Medicine (CDHAM) and the United States Africa Command (USAFRICOM) aimed at assisting African Partner Nations (PNs) in enhancing their disaster preparedness and response capabilities. Since 2009, CDHAM-- a part of the Uniformed Services University of the Health Sciences-- has worked with sixteen PNs to develop a whole-of-government approach to disaster preparedness and response with an emphasis on plan development and, in some cases, creation of an autonomous national disaster management agency. As a result of these successful partnerships, CDHAM is now also playing a major role in assisting West African PNs with Ebola preparedness activities. This presentation will describe DPP as a model for how to plan and execute long-term sustainable global health engagements and will use Ebola response in Senegal as a case-study of recent outcomes.

### Learning Objectives:

By the end of this session, participants will be able to:

1. Describe a model for long-term, sustainable DoD health engagements with partner nations
2. Explain the benefits and difficulties of this type of program
3. Describe how Senegal was able to effectively control an outbreak of Ebola, and how this relates to outcomes achieved through the Disaster Preparedness Program

## **Senior Leader Panel Discussion – Advancing Professionalism in Global Health**

- 1) Participants will understand expectations of professionalism in global health
- 2) Participants will be able to apply current efforts and approaches to advancing professionalism in global health
- 3) Participants will be able to understand the role of competencies and education/training in advancing professionalism in global health

**US Interagency Panel: Ebola Response - International and Domestic Considerations**

Moderator: David Tarantino, MD, MPH

- 1) Participants will understand the US government approach to the Ebola epidemic response.
- 2) Participants will be able to apply lessons and challenges of the Ebola response to future response efforts.
- 3) Participants will be able to apply approaches to civil-military coordination to future response efforts.

**The Computer Model for Better Understanding of the Human Brain Functioning for Medical Personnel**

Name: Col Alexander Van Acker, MD, Belgium

**Military-to-Military Health Capacity-building: Burma Case**

Presenter: RADM (Ret) Tom Cullison

Abstract: Functional military health systems are essential to the operational readiness of US allies and partner militaries. Military-to-military health capacity-building is a vital component of theater security cooperation efforts. Successful mil-mil health capacity-building requires the utilization of appropriate principles and practices. Challenges and opportunities in Burma can inform broader mil-mil health capacity-building efforts.

Learning Objectives:

- 1) Participants will understand the role of military-to-military health capacity building in theater security cooperation
- 2) Participants will be able to apply principles and practices of military-to-military health capacity-building
- 3) Participants will understand and apply challenges and opportunities in Burma to military-to-military capacity-building efforts

## Senegal Ebola Response

Abstract: Senegalese response to Ebola Epidemic

An outbreak of Ebola haemorrhagic fever was declared in March 2014 by W.H.O in Guinea Conakry. In fact, the first suspected cases were reported in December 2013, and confirmed in February 2014.

It is a highly contagious infectious disease, due to Ebola filoviridae. The first reported outbreak happened in the DRC (Democratic Republic of Congo) former Zaire, specifically in the province of Yambuku, crossed by the river Ebola, which explains the name given to the virus that causes a rapidly fatal hemorrhagic fever.

This epidemic started in the forest area located in the southern part of Guinea, bordering Sierra Leone and Liberia. The Guinean state, aided by partners somehow faced this disease, allowing a response to the epidemic in mid-April 2014. But a week later, unfortunately, an outbreak was declared, with extension to Sierra Leone, Liberia and Nigeria, then extension to Senegal and outside Africa (USA, Spain, France ...). Therefore, W.H.O had to consider the epidemic as a major global health problem. Today, in the three most affected countries, they are more than 13,000 cases with over 5,000 deaths. It is in this context that the Government of Senegal has established a national response strategy against the epidemic Ebola virus, which involves all sectors of the state in which the Armed Forces with its health system are fully integrated. Senegal is presently declared free of Ebola virus by W.H.O.

The presentation will discuss all response activities conducted by the Ministry of Health and Social Action (MSAS) and those carried out in the Senegalese Armed forces.

### Learning objectives

1 Senegalese response to Ebola epidemic at a national level

2 Senegalese Armed Forces Health Services preparedness to Ebola epidemic

## **Become a Healthcare Journal Author or Reviewer: A Panel Symposium**

Name: William Haffner, MD

Name: Tonya Lira

Name: Trueman Sharp, MD, MPH

Name: Laura Talbot, Rn, EdD, PhD

Name: Craig Goolsby, MD, FACEP

Surveys conducted at previous Annual AMSUS Meetings revealed significant gaps in knowledge and understanding of the scholarship of discovery. Medical, nursing, and other healthcare professionals attending these sessions have been taught the established fundamentals of knowledge in their respective fields, but few have truly learned how to skillfully advance and disseminate that knowledge so that others in their fields can enhance their understanding of the new knowledge and how it can be applied to and improve the care of patients.

Such gaps include the knowledge and ability to ask a researchable question. If one cannot formulate a question, one cannot meaningfully move forward in gathering or interpreting data or applying the results to a clinical care or community health situation. Once an appropriate question is formulated, then the collection and analysis of data will fall into a logical pattern that will inform a thoughtful discussion and meaningful conclusions or recommendations for improvement. Dissemination of that new information in public and enduring formats will assure that the new information has now become part of the established knowledge base in the respective disciplines.

The goal of this session is to provide the physician, nurse, or other healthcare professional with the tools to effectively move from the initial phase of inquiry through data collection and analysis, and then to the development of new recommendations for patient and community care. Our ultimate goal is the formal presentation in a podium session or, even better, in the submission of a manuscript for publication.

Objectives:

By actively participating in this continuing medical education session, the learner will be able to

1. Describe at least 3 steps in the formulation of a researchable question and the design of an appropriate study
2. Analyze data obtained in order to reach meaningful conclusions that will advance knowledge in medicine, nursing, or other healthcare science
3. Prepare and submit a high quality manuscript to an appropriate peer-reviewed journal in consideration for publication.