

Improving Treatment Outcomes for Patients with Acute Concussion: A Defense Health Agency Quadruple Aim Performance Process (QPP) Initiative

Traumatic Brain Injury Advisory Committee 24 September 2020 1005 – 1105 (ET)



Unclassified "Medically Ready Force...Ready Medical Force"

Presenters



Introduction

- CAPT Scott Pyne, M.D., U.S.N., Defense and Veterans Brain Injury Center (DVBIC) Division Chief, J9, DHA, Silver Spring, MD
- Pilot Sites
 - LTC Cecilia Nájera, M.O.T.R./L., U.S.A., Acting Director, Army Traumatic Brain Injury (TBI) Program, Rehabilitation & Reintegration Div (R2D), HCD, G-3/5/7, OT Deputy Consultant, US Army Office of the Surgeon General, 7700 Arlington Blvd, Falls Church, VA 22042-5142

DHA Policy Development

- CDR Christofer Ecklund, Psy.D., Section Head, TBI Programs, M333, Bureau of Medicine and Surgery (BUMED), Falls Church, Virginia
- Outcomes and Data Metrics
 - Katie Stout, P.T., D.P.T., N.C.S., M.B.A., DVBIC, Clinical Affairs Lead, J9, DHA, Silver Spring, MD

Promoting Educational Resources

- Maj Thomas J. Bayuk, D.O, U.S.A.F., M.C., Neurologist, TBI Consultant to AF/SG, National Intrepid Center of Excellence, Walter Reed National Military Medical Center (WRNMMC), Bethesda, MD
- Questions
 - Panel Members

Disclosures



- CAPT Scott Pyne, LTC Cecilia Nájera, CDR Christofer Ecklund, Dr. Katie Stout and Maj Thomas Bayuk have no relevant financial or non-financial relationships to disclose relating to the content of this activity.
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At the conclusion of this activity, participants will be able to:

- 1. Describe the importance of standardized assessment and management of concussion/mild Traumatic Brain Injury (mTBI) to evaluate clinical outcomes for patients diagnosed with acute concussion (AC).
- 2. Discuss enterprise-wide outcomes data collection to identify best business practices in acute concussion evaluation and management.
- 3. Review differing acute concussion pathways of clinical care based upon available clinical resources that follow a common evaluation and management process.
- 4. Identify educational resources to provide timely, consistent and coordinated training of acute concussion assessment and management across the Department of Defense.

CAPT Scott Pyne, M.D.





CAPT Pyne has been the Division Chief of the Defense and Veterans Brain Injury Center since August 2018. He is clinically trained as a Family Medicine/Sports Medicine Physician and has significant experience in the evaluation and management of concussion in athletes, exertional heat injuries, and the medical care of entry-level military personnel. He previously served as the Navy Surgeon General's Specialty Leader for Sports Medicine, team physician for the United States Naval Academy, and Medical Director of the Marine Corps Marathon.

Why Is There A Need For An Acute Concussion QPP?



- Lack of acute mTBI standardized care across Military Treatment Facilities (MTFs)
 - Incomplete assessment
 - Delayed rehabilitation
 - Insufficient interdisciplinary communication and care coordination
 - Chronic concussion-related symptoms that may be avoidable if identified earlier
 - Inflated costs
- Lack of implementation of emerging science in assessment and treatment of acute mTBI
 - Assessment has historically focused solely on cognitive deficits, leaving an estimated 50% of common clinical deficits unidentified
 - Emerging science indicates the need for:
 - A multi-modal assessment at time of injury to improve patient outcomes
 - $\circ~$ Timely access to repeat evaluation with personalized treatment protocols
 - Implementation of a vestibular and oculomotor impairment screening assessment and a progressive return to activity to decrease length and severity of concussion recovery

Corpsmen & Medics





U.S. Marine Corps photo by Cpl. Summer Romero, n.d.

U.S. Army photo by Maj. Carson Petry, n.d.



- Utilize state-of-the-science tools developed by the DVBIC in collaboration with the TBI Advisory Committee (TAC)
- Will be implemented Military Health System (MHS) wide for any patient who sustains an mTBI and receives care in the direct care system (including operational medicine)
- Will measure:
 - Military Acute Concussion Evaluation 2 (MACE 2) Clinical Assessment performed with initial assessment
 - Follow-up within 72 hours after diagnosis of concussion
 - Progressive return to activity (PRA) program utilized before return to full duty

Concussion QPP Countermeasures



Gap(s) Addressed	Solution (If We Implement)	Expected Outcome (Then We Expect)
Inadequate infrastructure	Develop and maintain adequate infrastructure (Policy/Procedure)	Standardized clinical care to ensure patients achieve optimal clinical outcomes.
Limited utilization of standardized assessment	Use MACE 2 (Military Acute Concussion Evaluation v2) to assess all patients with suspected concussion.	Early appropriate diagnosis and decrease time to return to full duty/activity
Limited assessment of vestibular and oculomotor dysfunction	Use MACE 2 for acute vestibular and oculomotor assessments.	Promote early targeted intervention and recovery while preventing prolonged/chronic symptoms (nausea, dizziness, headache, etc.).
Lack of re-assessment frequency awareness.	72 hour f/u per Concussion Management Tool (CMT) followed by utilization of the progressive return to activity (PRA) algorithm.	Expedite recovery with optimal outcomes.
Lack of standardized treatment	Utilization of the MACE 2, CMT, and Progressive Return to Activity per Acute Concussion Care Pathway	Decrease frequency and impact of chronic concussion symptoms.
Lack of return to activity/play/duty progression knowledge	Implement PRA	Appropriate return to duty/play timeline to prevent secondary injury while accelerating recovery.

Table copied from presentation titled "Improving Treatment Outcomes for Patients with Acute Concussion" COL Garber, NMSK CC Chair 21 March 2019



- An enhanced medically ready DHA
- Improved service member outcomes and medical readiness
- Satisfied patients with the expected decrease in chronic concussion related symptoms
- A fulfilled medical staff capable of appropriately managing patients with acute concussion

LTC Cecilia Nájera, M.O.T.R./L.,





LTC Nájera is the Acting Director for the Army Traumatic Brain Injury Program, Office of The Surgeon General, Falls Church, Virginia. In this capacity, she is responsible for delivering solutions across the Army's TBI portfolio with respect to population health, strategic guidance for TBI research portfolios, and oversight of policy and healthcare delivery for traumatic brain injury.

LTC Nájera earned her Master's degree in occupational therapy from the University of Texas Health & Science Center at San Antonio, Texas. Currently, she is a PhD candidate for the Rehabilitation Science program at the University of Maryland, Baltimore.

Her previous military assignments include: William Beaumont Army Medical Center, Fort Bliss, Texas; 528th Combat Operational Stress Control, Fort Bragg, North Carolina; San Antonio Military Medical Center, Fort Sam Houston, Texas. From March 2008 to June 2009, LTC Nájera served a 15-month deployment in support of Operation Iraqi Freedom.

Improving Treatment Outcomes for Patients with Acute Concussion QPP



- The Pilot Process Discussion:
 - Background
 - Pilot Site Selection
 - Pilot Launch
 - Challenges



DVIDS photo by Dale Davis, n.d.



Problem Statement: Historically, acute concussion (mild TBI) assessment did not identify 50% of common clinical deficits. Considerable emerging science on acute concussion over the past three years indicates the need to improve patient outcomes through multi-modal assessment at time of injury and to implement timely access to repeat evaluation with personalized treatment protocols.



Root Cause of Problem Statement:

- No single specialty for concussion care
- Varying understanding of specialty roles
- No consistent process for care coordination
- Unknown capabilities with ongoing and updated training resulting in risk to sustainment of skills after initial training
- MHS GENESIS and legacy Electronic Health Records (EHR) limits tracking of metrics and standardized documentation

The Pilot Process: Background





Image created by Mental Health and Primary Care, (M333) Navy Bureau of Medicine and Surgery

The Pilot Process: Background





Image created by The Army TBI Program, Office of the Surgeon General



- Improving Treatment Outcomes for Patients with Acute Concussion QPP:
 - Standardization with local customization
 - Right patient, right evaluation, by the right health care provider, at the right time
- Possible course of actions (COAs) for implementation:
 - All Primary Care Managers (PCMs) are trained in TBI
 - Incorporate one TBI Subject Matter Expert (SME) per Patient Centered Medical Home (PCMH)
 - Implement acute concussion clinics

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Regional

PWoC

(notional)

The Pilot Process: Site Selection



Criteria 1TBI ChampionsPresence of a Civilian TBI ChampionEnsures the pilot site will be ammenable to change implementation. Due to frequent PCS of service members, a civilian champion would be ideal to maintain momentum.Criteria 2Comparable MTFsMTFs of comparable size, population (AD to non-AD), propensity for mTBI (training, more active)MTFs of comparable size and population mix (AD to non-AD) along with population's propensity for mTBI will help with site comparison.Criteria 3Geographic RegionThe geographic spread of pilot sites should be spread across different regions and not cluster in one locationSide locations should be spread across continental United States and from different regional Health Commands (note: Camp Lejuene (Navy) and Wright-Patterson AFB (Air Force) are already chosen as pilot sitesCriteria 4mTBI Patients EncounteredGreater number of concussion diagnosis codes in FY 16-19Locations with higher volume of mTBI cases should allow for better assessment of the pilot's success.	I		Selection Criteria	Criteria Details	Justification
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		Criteria 4	mTBI Patients Encountered	Greater number of concussion diagnosis codes in FY 16-19	Locations with higher volume of mTBI cases should allow for better assessment of the pilot's success.

Site Name
Fort Hood, TX
Fort Bragg, NC
Camp Lejeune, NC
Fort Benning, GA
Fort Carson, CO
Wright Patterson, OH
Landstuhl, Germany

Table created by The Acute Concussion QPP Pilot Team

The Pilot Process: Site Selection



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Purpose of Site Visits

- The Acute Concussion Pathway of Care (PWoC) Pilot study aims to assess the feasibility and acceptability of a standardized, multi-modal approach to diagnosing and managing concussions across the Services by administering this initiative at four Military Treatment Facilities
- Pilot site visits aims to obtain in-depth information concerning all administrative and educational aspects of each site, provide personnel training as requested, and ensure that each site has the necessary information to successfully implement the AC PWoC.



- Ft. Bragg Site Visit
 - Largest military installation in the world; ~ one in five individuals incur concussions
 - Drop zones incur the largest number of concussions
 - Patients presenting with concussions were directed to the Intrepid Spirit Center (ISC) immediately
 - 95% of patients are within five miles of the concussion clinic which hinders follow up
 - There is support from hospital commanders and the Command

CATEGORY 2: Providing inpatient and outpatient care for Soldiers with mild and moderate TBI

Ft Carson \star 📕 🖶 🔿



- Landstuhl Site Visit
 - Role III medical facility with over 35,000 beneficiaries; receives medical evacuations from the U.S. Central Command (CENTCOM) & TBI referrals from the U.S. European Command (EUCOM)
 - Patients will present to the ED first and then be directed to the TBI clinic for the completion of the MACE 2 and further evaluation
 - Progressive return to activity (PRA) is typically managed by the TBI clinic



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Ft Gordon \star 📕	
JBLM \star 🗖 Ω	
SAMMC = +	
Landstuhl (1b) 🗮 🖶 🕂	
Tripler (1b)	

CATEGORY 1: Providing inpatient and outpatient care for Soldiers with mild, moderate, severe and penetrating TBI



- Camp Lejeune Site Visit
 - Patients diagnosed with concussion in the ED or Primary Care Clinic (PCC) are referred to the SMART (specific, measurable, attainable, realistic and timely) Clinic for evaluation and progressive return to activity
 - Patients who do not achieve full recovery within a 4-6 week time period are referred to the Intrepid Spirit Center for next level of care
 - SMART clinics can evaluate five new concussion patients a week in addition to follow-up concussion and musculoskeletal appointments



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CATEGORY 2 NMC Camp Lejeune

NH Camp Pendleton



Site visit dates

• 14 – 15 January 2020:

 \circ Womack Army Medical Center, Ft Bragg, NC

• 04 – 06 February 2020:

 \odot Landstuhl Regional Medical Center, Germany

• 11 March 2020:

 \circ Naval Medical Center, Marine Corps Base Camp Lejeune, NC

• Pending: site visit & launch delayed

 \odot Wright-Patterson Medical Center, Wright-Patterson AFB, OH

The Pilot Process: Challenges



- COVID 19 Pandemic
- Command Support
- Staffing
- Resources
- Data Collection



DVIDS photo by Cpl. Rachel Thicklen, n.d.

CDR Christofer Ecklund, Psy.D.





CDR Christofer Ecklund earned his Doctor of Psychology (Psy.D.) from the American School of Professional Psychology. He completed his Internship training at the Naval Medical Center San Diego. CDR Ecklund also completed his two year post-doctoral fellowship in clinical neuropsychology from the University Of California San Diego School Of Medicine. He is currently a licensed clinical psychologist and neuropsychologist.

CDR Ecklund had previous staff assignments at the Naval Branch Health Clinic in Groton, CT with the USS Harry S Truman (CVN 75) and Naval Medical Center Portsmouth. He has also been deployed to Afghanistan with US Marine Corps and shipboard, both in support of Operation Enduring Freedom operations. CDR Ecklund is currently the Section Head of Bureau of Medicine and Surgery (BUMED) Traumatic Brain Injury (TBI) Programs.

Policy

DoDI 6490.11 (Change 1) DoD Policy

Guidance for Management of Mild Traumatic Brain Injury/Concussion in the Deployed Setting

DoDI 6490.13 (Change 1)

Comprehensive Policy on Traumatic Brain Injury-Related Neurocognitive Assessments by the Military Services

 DRAFT DHA-PI Required Clinical Tools and Procedures for the Assessment and Clinical Management of mTBI/Concussion Department of Defense INSTRUCTION

> NUMBER 6490.13 September 11, 2015 Incorporating Change 1, Effective March 31, 2017

> > USD(P&R)

SUBJECT: Comprehensive Policy on Traumatic Brain Injury-Related Neurocognitive Assessments by the Military Services

References: See Enclosure 1

1. PURPOSE. This instruction:

a. In accordance with the authority in DoD Directive (DoDD) 5124.02 (Reference (a)), reissues DoD Instruction (DoDI) 6490.13 (Reference (b)) to establish policy, assign responsibilities, and prescribe standard elements, pursuant to section 722 of Public Law 111-383 (Reference (c)), requiring the implementation of a comprehensive neurocognitive assessment policy in the Military Services.

b. Designates the Army as the Military Health System (MHS) Lead Service for the testing required by the DoD Neurocognitive Assessment Program for the Military Services.

2. <u>APPLICABILITY</u>. This instruction applies to OSD, the Military Departments (including the U.S. Coast Guard (USCG) at all times, including when it is a service in the Department of Homeland Security by agreement with that Department), the Office of the Chairman of the Joint Chiefs of Staff (CICS) and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this instruction as the "DoD Components").

3. POLICY. It is DoD policy that:







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DoDI 6490.11 (Change 1)



- Identify, track and ensure appropriate evaluation and treatment of service members exposed to potentially concussive events, to include blast.
- Service members exposed shall be medically assessed as close to the time of injury as possible.
- Medically documented mTBI/concussion in Service members shall be clinically evaluated, treated and managed according to current DoD clinical practice guidance for the deployed setting.
- Potentially concussive events, concussion screening results and diagnosed concussions shall be appropriately documented, to the maximum extent possible, in the EHR.

DoDI 6490.13 (Change 1)



- All Service members and DoD civilians across the deployment cycle will undergo computerized neurocognitive testing.
- Neurocognitive assessment tools will be used to screen for cognitive changes as part of a clinical evaluation and will not be used as a stand-alone diagnostic tool.
- Automated Neuropsychological Assessment Metrics (ANAM) is the DoD-designated neurocognitive assessment tool.
- Population-based neurocognitive assessment testing is not routinely performed upon returning from deployment.

DRAFT DHA-PI



- Medical personnel will evaluate individuals as soon as possible following a potentially concussive event.
 - Complete MACE 2 at initial mTBI evaluation.
 - Initiate a PRA at follow-up and continue to monitor/assess the patient regularly until an exertional test is successfully completed and the patient is cleared to return to duty or normal activity.
 - Track and document required mTBI patient reported outcome measures using the Neurobehavioral Symptom Inventory (NSI) and other recommended tools outlined by the TBI Advisory Committee (TAC).

DRAFT DHA-PI



- Medical personnel will document MACE 2 and PRA utilization during initial and follow-up encounters using the Tri-Service Workflow (TSWF) mTBI Alternate Input Method (AIM) form in the patient's EHR. If EHR is not available, document in patient's encounter notes.
- Medical personnel who assess and care for patients with mTBI/concussion will complete self-guided training on MACE 2 and PRA.

Katie Stout, P.T., D.P.T., N.C.S., M.B.A.





Dr. Stout is the Director of the Clinical Affairs Division at the Defense and Veterans Brain Injury Center. She received her Doctorate in Physical Therapy from Northeastern University and her Master's in Business Administration with a concentration in Healthcare Administration from the University of Scranton. She is a board certified Neurological Specialist by the American Board of Physical Therapy Specialties. For the last 12 years she has worked in TBI and military medicine in a variety of roles to include direct clinical care, research portfolio management and program management within Telehealth. In addition to her work with the Military, she is adjunct faculty at the University Of Maryland School Of Medicine and served a 4 year term as a board member for the Maryland Board of Physical Therapy Examiners 2013-2017. She has authored several publications and a book chapter.



- Key to tracking a new metric is the ability to measure
- Evaluation of data and methods
- Data to drive improvements in metrics

Data Collection Milestones



	Data Metrics and Reporting Workstream
	Milestone Description
1	Develop requirements and metric methodology
2	Collect Data
3	Develop dashboard/performance report
4	Develop final report and maintenance plan

Acute Concussion QPP Metrics



- MACE 2 Clinical Assessment performed with initial assessment
- Follow-up within 72 hours after diagnosis of concussion
- Progressive return to activity (PRA) program utilized before return to full duty



DVIDS photo by Airman 1st Class Hanah Abercrombie, n.d.



- Two Main Data Sources
 - Military Health System Data Repository (MDR)
 - 72 Hour Follow-up data
 - Health Services Data Warehouse (HSDW)
 - MACE 2 and PRA data

72 Hour Follow-up Acute Concussion Methodology



- This measure calculates the rate of 3-day follow-up care for patients with new concussion initially seen in the direct care system.
- In order to establish a qualifying index or initial encounter, a patient cannot have any preceding encounters, direct care or purchased care, accompanied by any Traumatic Brain Injury ICD-10-CM code, of any severity anytime within 6 months before. This is referred to as the washout period. Although ICD-10-CM extenders capture initial encounter, within the MHS, those initial encounter codes are used throughout the entire episode of care.

72 Hour Follow-up Acute Concussion Methodology cont.



- INCLUSIONS: Any encounter in a direct care facility for initial acute concussion
- EXCLUSIONS:
 - 1. If any member is found to have a visit in the wash-out period, then exclude from the entire measurement period.
 - 2. A very small number of individuals were found to have different personal identifiers. These individuals were excluded from the analysis.

Acute Concussion Care Pathway: 72 Hour Follow-up After Diagnosis Target





*Data source: MDR Pulled by the DVBIC outcomes team **Data methodology is contingent upon proper electronic coding

72 Hour Follow-up Methodology Validation



- Methodology developed
- Initial data run
- Data validation (using random sample)
- Updates to methodology



Coding and documentation accuracy is critical

• TBI Coding Education is available through DVBIC



DVIDS photo by Staff Sgt. Jennifer Brofer, n.d.

Maj Thomas Bayuk, D.O.





Dr. Thomas Bayuk is an active duty Air Force Neurologist currently working at the National Intrepid Center of Excellence (NICoE) in Bethesda, Md. He completed his neurology residency at the San Antonio Military Medical Center in 2014 and went on to practice general neurology for four years before completing a one-year Sports Neurology fellowship at the Barrow Neurological Institute in Phoenix, AZ. Following completion of his fellowship in June 2019, Dr. Bayuk joined the staff at NICoE. Dr. Bayuk is the TBI Consultant to the Air Force Surgeon General, and an active clinician specializing in the evaluation and management of concussion.



- Education and Training strategy approached through three questions:
 - What E&T should we provide pilot sites?
 - How will the approved E&T be delivered?
 - How will we know if the E&T was beneficial and successful?

Education and Training (E&T)



- What E&T should we provide to pilot sites?
 - Standardized vs. tailored approach
 - Providing a scalable E&T plan
 - Identified training requirements:
 - MACE 2
 - Concussion Management Tool (CMT)
 - PRA
 - Additional training as needed (ex. mTBI coding)

	to time of injury as possible.
Service Member Name:	Described Complete R Halts
Dobl/EDIPI/SSN:	Branch of Service & Unit:
Examinor:	Time of injury:
Examiner	Time of Evaluation:
Timing: MACE 2 is mos injury as possible. The MA	st effective when used as close to the time of ACE 2 may be repeated to evaluate recover
Evaluate for red flags in pr	atients with Classow Coma Scale (CCS) 13
 Deteriorating level 	 Results from a structural
of consciousness	brain injury detection device
Double vision	(IT available)
combative or agitate	ed • Weakness or tingling
behavior	in arms or legs
Repeat vomiting	 Severe or worsening headache
-	
Defer MACE 2 if any r consult higher level o evacuation according Combat Casualty Car	red flags are present. Immediately of care and consider urgent to evacuation precedence/Tactic: e (TCCC).

Education and Training (E&T)



- How will E&T be delivered?
 - Face-to-face vs. hybridized approach
 - Utilization of existing training tools/materials
 - Utilization of local E&T resources
 - Utilization of partners (ex. DVBIC's Regional Education Coordinators)
 - E&T delivery: looking forward



Col. Sidney Hinds II and Regional Education Coordinator Erin O'Dell. (DVBIC Photo, n.d.)

Education and Training (E&T)



- How will we know if the E&T was beneficial?
 - Measuring compliance and success with E&T
 - Developing a "Post-Training Questionnaire"
 - Continuous feedback and communication with pilot sites



DVIDS photo by Staff Sgt. Michael Lemmons, n.d.





- The DoD has recognized the need for MHS-wide mTBI standardization and therefore is implementing the mTBI QPP.
- There have been many lessons learned from the mTBI QPP pilot site launch that can be taken into consideration for MHS-wide implementation.
- The DoD has developed a draft policy for required clinical tools and procedures for the assessment and clinical management of mTBI, to assist with the mTBI QPP.
- Accurate provider coding and documentation is essential to mTBI QPP data metrics and analytics effort.
- There will be a dynamic mTBI QPP education and training approach to ensure all providers are properly trained.

References



Broglio, S. T. (2018, April). Emerging information from the NCAA-DoD CARE consortium – longitudinal clinical study core. Paper presented at the Second

Annual NCAA – U.S. Department of Defense Grand Alliance Concussion Conference, West Point, NY.

Defense and Veterans Brain Injury Center. (2014). Progressive Return to Activity following acute concussion/mild traumatic brain injury: Guidance for the

primary care manager in deployed and non-deployed settings. https://dvbic.dcoe.mil/material/progressive-return-activity-pcm-cr

Defense and Veterans Brain Injury Center. (2014). *Progressive Return to Activity following acute concussion/ mild traumatic brain injury: Guidance for the rehabilitation provider in deployed and non-deployed settings*. <u>https://dvbic.dcoe.mil/material/progressive-return-activity-following-acute-concussionmild-tbi-guidance-rehabilitation</u>

- Kontos, A. P., & Collins, M.W. (2018). *Concussion: A clinical profile approach to assessment and treatment*. American Psychological Association, Washington, DC.
- U. S. Department of Defense. (2020). *Defense health agency procedural instruction: Required clinical tools and procedures for the assessment and clinical management of mild traumatic brain injury (mTBI)/concussion.* Manuscript submitted for publication.
- U. S. Department of Defense. (2017). DoD comprehensive policy on traumatic brain injury-related neurocognitive assessments by the military services. DoD number 6490.13, Change 1.
- U. S. Department of Defense. (2012). DoD policy guidance for management of mild traumatic brain injury/concussion in the deployed setting. DoD number

6490.11



Questions?

How to Obtain CE/CME Credit



To receive CE/CME credit, you must register by 0745 ET on 25 September 2020 to qualify for the receipt of CE/CME credit or certificate of attendance. You must complete the program posttest and evaluation before collecting your certificate. The posttest and evaluation will be available through 8 October 2020 at 2359 ET. Please complete the following steps to obtain CE/CME credit:

- 1. Go to URL: <u>https://www.dhaj7-cepo.com/content/clinical-communities-speaker-series-military-health-care-select-promising-practices-24-sept</u>
- 2. Click on the REGISTER/TAKE COURSE tab.
 - a. If you have previously used the CEPO CMS, click login.
 - b. If you have not previously used the CEPO CMS click register to create a new account.
- 3. Follow the onscreen prompts to complete the post-activity assessments:
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 - b. Complete the Evaluation
 - c. Take the Posttest
- 4. After completing the posttest at 80% or above, your certificate will be available for print or download.
- 5. You can return to the site at any time in the future to print your certificate and transcripts at https://www.dhaj7-cepo.com/
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