

What Schools Can Learn from the Military

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Disclaimer

- The views expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, nor the U.S. Government.

Disclosure

- I have nothing to disclose

Agenda

- Policy
- Definition
- Theater Management
 - MACE
 - Algorithms
 - Concussion Care Centers
- Mil – Civ take aways

Policy Guidance

- Department of Defense Instruction 6490.11, DoD Policy Guidance for the Management of Mild Traumatic Brain Injury/Concussion in Deployed Setting.
- Service Specific Policy
 - MARADMIN 294/12 Marine Corps TBI Program
 - Prevent : primary, secondary, tertiary
 - Provide: trained medical providers, rest/recovery
 - Track: testing and reports
 - Train: mTBI awareness

Policy Continued

- These policies set up a theater wide system of care for service members with concussion.
- The policy guides decision making on referral to a higher echelon of care and on return to duty.
- The policy also directs reporting/tracking.
- Establishes baseline neurocognitive testing on all deploying service members.

Definition: Concussion

- A brain injury and is defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces. Several common features that incorporate clinical, pathologic and biomechanical injury constructs that may be utilized in defining the nature of a concussive head injury include:

- Concussion may be caused either by a direct blow to the head, face, neck or elsewhere on the body with an “impulsive” force transmitted to the head.
- Concussion typically results in rapid onset of short-lived impairment of neurologic function that resolves spontaneously. However in some cases, symptoms and signs may evolve over a number of minutes to hours.
- Concussion may result in neuropathological changes, but the acute clinical symptoms largely reflect a functional disturbance rather than a structural injury and, as such, no abnormality is seen on standard structural neuroimaging studies.
- Concussion results in a graded set of clinical symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course. However, it is important to note that in some cases symptoms may be prolonged.

DoD Definition

- Exposure to a Head injury Event (Blast or Direct Trauma)
 - AND -
- At least one of the following:
 - Loss of Consciousness (LOC)
 - Alteration of Consciousness (AOC)
 - Post Traumatic Amnesia (PTA) (retro or antro)

Theater Management

- Mandatory Medical Evaluation events:
 - In a vehicle associated with a blast, collision or rollover
 - Within 50 meters of a blast
 - Direct blow to the head
 - Command Directed (might include repeated exposures)

Medical Tools

- When one of these conditions is met, and evaluation of the patient is made using:
 - Concussion Management in Deployed Settings algorithm
 - the MACE (Military Acute Concussion Evaluation) screening tool.
- Both are printed on laminated cards for carrying in cargo pockets.

MACE

- Screening Tool when one of the mandatory evaluation events occurs.
 - The MACE is a modified SAC
 - Used by Corpsmen, medics and physicians
 - Essentially makes a diagnosis
 - Allows for standardized neurologic exam
 - Simplifies documentation and communication
 - Score is a three section code

Concussion Management in Deployed Settings Algorithm

- Sets the framework for all care of concussed individuals
- Establishes “red flag symptoms” directing immediate referral/evac
- Guides rest, recovery, referral, advanced testing and return to duty.
- Mandatory 24 hours rest and follow up.

Concussion Care Centers

- Referral guidance is based on reasonable expectations of recovery. If after 7 days of appropriate rest/treatment, symptoms persist, then referral to a higher level of care is necessary.
- The concussion care centers are located throughout the theater. All have holding capacity, advanced diagnostics and access to specialized providers.

Concussion Restoration Care Center (CRCC)

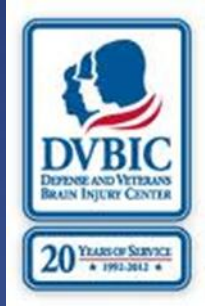


- Primary Care Sports Physician, Occupational Therapist, Physical Therapist and psychologist
- Posturography and BESS
- Holding Capacity both with minimal nursing care needs and for those that just need a place to stay while recovering
- Exertional testing prior to return to duty
- “Keep the Warfighter in the Fight”
- ANAM

Take A Ways

- Have a policy
- Educate the athletes, parents, coaches and teachers
- Make the diagnosis
- No same day Return to Play
- Expect recovery and make sure this is part of your patient counseling
- Work with your teachers and parents to achieve graded return to play and graded return to academics
- Very little chance for PTSD with sports related concussion
- If you do baseline testing, make sure the follow up testing is in the same or as similar setting as possible.

Resources



- Defense and Veterans Brain Injury Center
- <http://www.dvbic.org/>



- DoD Deployment Health Clinical Center
- Located at Walter Reed National Military Medical Center, Bethesda, MD
- <http://www.pdhealth.mil/>



- Defense Centers of Excellence
- <http://www.dcoe.health.mil>

Questions