Readiness # 1

COL Myron McDaniels, LTC Christopher Cowan, LTC Chester Jean
COL Matt Garber, Ms. Theresa (Tracie) Lattimore, LTC Sharon Rosser

Health Care Delivery

29 November 2018
Presenter has no interests to disclose.

AMSUS and ACE/PESG staff have no interests to disclose.

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Purpose:
To provide an overview on how Army Medicine improves Readiness through Primary Care, Behavioral Health, Musculoskeletal initiatives, Traumatic Brain Injury, and Comprehensive Pain Integration.

Agenda:
1. Introduction & Learning Objectives
2. Priorities and Imperatives
3. Army Medical Home
4. Behavioral Health Service Line (BHSL)
5. Physical Performance Service Line (PPSL)
6. Traumatic Brain Injury (TBI)
7. Army Comprehensive Pain Management Program
At the conclusion of this activity, the participant will be able to:

• Show how Army Medical Homes assist in maintaining the Ready Medical Force.

• Describe how at least one core BHSL program supports Readiness.

• Describe the role of the Behavioral Health Data Portal in linking patient care to the Behavioral Health Service Line's role in promoting Readiness.

• Show PPSL holistic approaches that have allowed for fewer limited duty days making Soldiers Mission Ready.

• Describe advances in the understanding of TBI and how they will be integrated into clinical practice on the battlefield, in training and in the clinics.

• Show how Army Medicine has established an enduring comprehensive pain management strategy; integrating holistic, complementary and integrative therapies; vital in shaping the future of the Military Health Systems; while directly impacting readiness – not only of the Warfighter but also of the Army Family.
CSA Priorities: Readiness (#1), Future Army, Take Care of the Troops

“Readiness to fight and win in ground combat is, and will remain, the United States Army’s No. 1 priority, and there will be no other No. 1. We will always be ready to fight today. We will always prepare to fight tomorrow.”

General Mark A. Milley, Army Chief of Staff

“Our challenge today is to sustain the counterterrorist and counterinsurgency capabilities that we’ve developed with a high degree of proficiency over the last 15 years, while simultaneously rebuilding the capability to win in ground combat against higher-end threats such as Russia, China, North Korea and Iran… We can wish away these threats, but we’d be very foolish as a nation to do so.”

General Mark A. Milley, Army Chief of Staff

“Our readiness to deploy healthy individuals and organizations in support of the world’s premier combat force must be without question. Readiness is #1.”

LTG Nadja Y. West, Army Surgeon General

“The future of Army Medicine at the individual, organizational and enterprise levels is being determined today. We must rapidly develop scalable and rapidly deployable medical capabilities that are responsive to Operational needs and are able to effectively operate in a Joint/Combined environment characterized by highly distributed operations and minimal, if any, pre-established health service infrastructure.”

LTG Nadja Y. West, Army Surgeon General

Readiness Begins with Leaders!
Medic Development

• Ready Medical Force
• Operational Correlation
• Broadening Scope
• Delegated Authority
• Validation
• Supervision/Mentorship
• Experience (Reps/Sets)
• Training

Army Medical Home

Provider
Expeditionary
Combat Medic
Combat Medic
Combat Lifesaver
Clinical Decision Making
Expanded Medic Capability

- Expanded Medic Treatment
- Utilization of ECM/NCO
- IAW ICTs and MEDCOM 40-50

Increased Quality & Safety

- Documented in EHR
- Provider Co-signature
- Medic Peer Reviews
- NCO Chart Reviews
Utilization of Algorithm Directed Troop Medical Care

1 Week AMH Orientation
24-36 Hours Didactic Instruction
+ >300 Hours Clinical Preceptorship
Primary Care ICTs Trained
MEDCOM 40-50 Skills Trained

• 10 Week Rotation vs 3 Day Course
• Training Standardization
• Documented in DTMS
• Training Evaluation Provided

MSTC + UC/ER + SCMH + Inpatient Experience = Prolonged Field Care
The BH SOW operates as a single BH system that supports Army Readiness by promoting health, identifying BH issues early in the course of the illness, delivering evidence-based treatment, and monitoring efficiency and effectiveness through transparent metrics.

Substance Use Disorder Clinical Care is integrated in 6 of 11 programs (EBH, Medical Homes, MultiD, IOP, RTF, and IBH).
**Embedded Behavioral Health (EBH):**

- Reorganization of traditional model of outpatient BH care to one that is proactive, forward-positioned and aligned with active component operational units (direct support relationship)
- Addresses gaps in access and continuity of care through multidisciplinary teams
- Care occurs in an easily accessible (forward) location

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**Brigade Combat Team/Combat Aviation Brigade/Sustainment Brigade/etc.**

- Frequent consultation
- Coordinated management of high risk Soldiers
- Trend identification and response

**Multidisciplinary EBH team**
Behavioral Health Data Portal
Precision Healthcare Enables Recovery

- Recognized as the DoD frontrunner in BH outcomes monitoring, the Army’s Behavioral Health Data Portal (BHDP) enables precision medicine, enhances quality and continuity of care, and embeds systems for providing individualized feedback and action at the point of care.

- Recognized in the December 2016 Harvard Business Review, BHDP enables a real-time, standardized approach to enhance and demonstrate individual and population health improvement.

- As of September 2018, the Army used BHDP in over 95,000 BH encounters every month with a total of over 4.5 million surveys collected to date.
Army Behavioral Health Utilization (2005 to 2017)

Correlated with 2016 ASAP transformation, 2016 stand up of RTFs at BAMC and MAMC, and IOP expansion at multiple sites.

AD, ARNG, USAR Suicides
### Total Number of MSK Days on Profile

<table>
<thead>
<tr>
<th>Year</th>
<th>Total MSK Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>13,292,490</td>
</tr>
<tr>
<td>2016</td>
<td>11,642,404</td>
</tr>
<tr>
<td>2017</td>
<td>10,200,850</td>
</tr>
</tbody>
</table>

### AVG Number of MSK Days on Profile per Soldier

<table>
<thead>
<tr>
<th>Year</th>
<th>AVG MSK Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2.2745 days</td>
</tr>
<tr>
<td>2016</td>
<td>2.0705 days</td>
</tr>
<tr>
<td>2017</td>
<td>1.8290 days</td>
</tr>
</tbody>
</table>

- 3 million day decrease in MSK profile days from CY15 to CY17
- 23% decrease in MSK profile days exceeds 4% decrease in size of Army from CY15 to CY17
Achieving Continuous Improvement

Policy, process, procedure to prevent chronicity

Surveillance & Analysis

Reporting FORSCOM CHPC

Identify Leading Practices

Share Leading Practices

Consultation

UNCLASSIFIED
% Soldiers on Temporary MSK profile >90 days in the previous 180 days

Combat units with organic medical personnel, including PTs, have considerably fewer Soldiers on chronic MSK profiles than combat support and combat service support units with fewer medical personnel and no PTs.

In June 2016 MEDCOM released the new eProfile system. The methodology for identifying MSK profiles changed from U & L in PULHES to key term search based on review of 4000 MSK profiles.
Is There Variance Between Units?

% Soldiers on MSK profile >90 days in the Last 6 Months

- Yes there is significant variance in MSK burden even at the Army Corps level
3.8% of Soldiers with chronic MSK → 48% all limited duty days
• Improved profile management
• Early access to physical therapist
• Embedded vs. co-located
• Forward multi-disciplinary MSK care in the unit
• Reconditioning physical readiness training
• Screening (Medical Readiness Assessment Tool - MRAT)
  • Non-deployment risk
  • Non-responder risk
• Disability Evaluation System efficiency
DoD Numbers for Traumatic Brain Injury Worldwide – Army

2000 - 2018 Q1

- **Active**: 173,151
- **Guard**: 35,489
- **Reserve**: 16,504

**Total - Army**: 225,144

Source: Defense Medical Surveillance System (DMSS), Theater Medical Data Store (TMDS) provided by the Armed Forces Health Surveillance Branch (AFHSB)

Prepared by the Defense and Veterans Brain Injury Center (DVBIC) 2000 - 2018 Q1, as of June 21, 2018

**Mission**: Produce an educated force trained and prepared to provide early recognition, treatment and tracking of traumatic brain injuries in order to protect Soldier health
TBI Program

Initial Injury
Tissue Death
Tearing of “electric wires”

Programmed Cell Death
Loss of nerve’s conductive coating
Presence of antimicrobial cells
Regrowth of cells

Period of metabolic Vulnerability: What is the timeline for a second Brain Injury or secondary injury?

Min Hours Days Weeks Months

Symptoms
- Headache
- Sleep disturbance/Fatigue
- Dizziness/Balance problems
- Visual disturbance
- Ringing in ears
- Slowed thinking
- Poor concentration
- Memory problems
- Anxiety/Depression/Irritability

Cellular Impact

Manifestation
- Failure to sleep at night
- Slower reaction time
- Decreased energy
- Balance problems
- Easily distracted
- Difficulty multitasking, processing information
- Enhanced fear of certain operational environments
- Interpersonal problems
- Slow physically and mentally

Clinical symptoms

Normal Cellular Function

Area Denial

Operational equivalent

High Risk Events (IBOLC Schedule)

Impact
- Worsening of a bad situation
  - Failure to call in support quickly
  - Failure to recall/relay information quickly
- Effect on Warrior skills
  - Poor marksmanship
  - Decreased work performance
- Decreased ability to avert an attack
  - Failure to alert unit of threat
  - Difficulty making rapid decision about friend/foe

Resource intensive: commit reserve force / reestablishing a strong point

Normal cellular function/ Area Denial

Resource intensive: commit reserve force / reestablishing a strong point

Strong point is no longer a strong point

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TBI Program

ARMY MEDICINE
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Conserving the Fighting Strength Since 1775!

Brain Banks
15 Year Longitudinal
Sync-Think
Neurokinetics
Oculogica
Fed RePORTER
FITBIR
NINAD
Biomarkers
Early Evaluation
Army Government External DoD
VA & CNRM
NCAA-DoD Alliance: CARE
ISTAT-PoC Device
LA-TBI
EXORD 165-13 Event-Driven Protocol
PDHA PHA TEAM-TBI
Open Research Projects

**FY17-18 Focal Areas:**
- Rapid ID of need for evacuation
- Detection of mild TBI
- Epidemiology
- Point of injury triage/monitor
- Therapeutic strategies

$126M 47 Mild TBI
$54M 30 Mild / Moderate TBI
$13M 20 Moderate / Severe TBI
$47M 11 Other

Executive Committee:
- Robert A. Ross (Chair)
- Andrew R. Dinan
- Kimberly N. Kaczkowski

Consortium Operating Committee:
- American Academy of Neurology
- American Orthopedic Association
- American Medical Directors Association
- National Athletic Trainers Association
- National College of Allied Health
- National Athletic Trainers Association
- National Collegiate Athletic Association
- National Federation of State High School Associations

NCAA-DOD Grand Alliance CARE Consortium

UNCLASSIFIED
Army Comprehensive Pain Management Program

**Mission:** Provide a comprehensive, holistic, multimodal, multidisciplinary pain management plan utilizing state of the art science modalities and technologies to advance pain medicine and provide optimal quality of life for patients with acute and chronic pain throughout the continuum of care.

- Implements non-pharmacologic therapies such as behavioral health/biofeedback, acupuncture, chiropractic, yoga and massage therapy with interventional pain therapies

**End State:** Return Soldiers to optimum duty in accordance with a Common Operational Picture. Quality care for all beneficiaries with acute and chronic pain. Integration/support to Army Medical Home and Interdisciplinary Pain Management Centers (IPMC) that optimizes pain outcomes by mitigating adverse events and improving quality of life.
Army Comprehensive Pain Management Program

Description

- 8 Interdisciplinary Pain Management Centers (IPMC)
- 4 IPMC-Lights
- Stepped Care Model for Pain
- Primary Care Pain Champions
- Synchronized pain care between the Army Medical Homes and IPMCs
- Functional Restoration Programs

Education

- Patient Pain School
- Tele-mentoring through the Extension for Community Healthcare Outcomes (ECHO)
- DOD/VA Clinical Practice Guidelines for Chronic Pain
- Annual Pain Care Skills Course
- Annual Pain Awareness Month
- Advanced Pain Management Course, Pain Skills and Battlefield Acupuncture Training

Interdisciplinary Initiatives

- Substance Use Disorder (SUD) Integration
- Addiction Medicine Intensive Outpatient Programs
- Naloxone Policy
- Drug Take Back Programs

Locations

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  - Drug Take Back Programs
PATHTOPOWEROVERPAIN

Pain can be managed through proper education and training, realistic goals, and integrating a variety of treatment options.

SELF MANAGEMENT
YOU are integral in managing pain. Regular movement throughout the day inspires positive health outcomes over time. Remember no single treatment works for everyone. Stretching, tai chi, and yoga are self-care activities that can assist with managing pain.

50 MILLION
Americans are affected by pain. Pain affects more Americans than diabetes, heart disease and cancer combined.

PRIMARY LEVEL PATIENT CENTER MEDICAL HOME
Primary Level Patient Center Medical Home Primary Care Managers (PCM) and Primary Care Pain Champions who are experts in pain management work together in the Medical Home to facilitate patients managing pain through education and training related to pain management techniques.

36.7 MILLION
Americans practice yoga. This figure is forecasted to rise to 55 million by 2020.

SECONDARY LEVEL MEDICAL NEIGHBORHOOD
The PCM coordinates with and leverages Interdisciplinary Behavior Health Consultants, Physical Therapists and Clinical Pharmacists within the medical neighborhood and MTF as additional resources for patients managing pain.

TERTIARY LEVEL SPECIALTY CLINIC
The Interdisciplinary Pain Management Center provides advanced pain management tailored to meet the needs of high risk patients with PCM referral. Complementary Integrative Medicine may include acupuncture, chiropractic, pain psychology, biofeedback, medical massage, and yoga/movement therapy.

MEDICATION
Your provider may prescribe appropriate pain medication for a limited duration. Overall chronic opioid use among Army Active Duty Service Members decreased from 11.9% in 2007 to 5.1% in 2017.

IN 2017
The American College of Physicians released updated guidelines that recommend first using non-drug treatments, such as spinal manipulation, for acute and chronic low back pain.

STEPPE CARE MODEL FOR PAIN
This model ensures the right treatment at the right level of care for the complexity of pain while emphasizing opioid safety through the use of non-pharmacologic treatments.
• Functional Restoration Program

- 58% reduction in ED visits
- 27% reduction in PCM visits
- 53% reduction in Ortho, PT, OT, Podiatry visits in direct care
- 38% reduction in BH visits
- 76% reduction in pain clinic visits
- 43% reduction in radiology studies (67% decrease in neck/spine x-ray, 55% decrease in MRI)
- 39% decrease in neurology utilization
- 58% decrease in Case Management (non-WTU/GWOT)

* Data from Fort Carson (Feb 2016, 42 patients); Over 200 graduates to date, pending data analysis.

* Data from Fort Carson Advanced Pain Management Course
Army Comprehensive Pain Management Program

- 19% reduction in proportion of the Army population receiving opioid prescriptions between FY2012 and FY2016
- 22% of Army ADSM received ≥1 opioid prescription (does not always = use)
- Civilian average prescribing rate for 2016 is 66.5%*

![Opioid Use Among ADSM by Service, FY 2006-2016](chart1)

- 45% reduction in Army ADSM chronic opioid users between FY2012 and FY2016
- Chronic opioid use is defined as ≥ 90 days of opioids dispensed in a 6-month time frame

![Chronic Opioid Use Among ADSM Opioid User by Service, FY 2006-2016](chart2)

*Army CPMP established FY12
• Readiness is #1

• Army Medicine
  – Medical Homes assist in improving and maintaining Soldiers readiness.
  – Behavioral Health incorporates 11 standardized clinical programs into a System of Care, which are centered on Soldier Readiness, reaching Soldiers and Families where they live and work to improve access and reduce stigma.
  – Forward Musculoskeletal care uses holistic approaches that allow fewer limited duty days making Soldiers Mission Ready.
  – Traumatic Brain Injury program integrates clinical practices on the battlefield, in training and in the clinics.
  – Comprehensive Pain program integrates holistic, complementary and integrative therapies impacting readiness.
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Regional Health Command – Central (RHC-C)

Regional Health Command – Atlantic (RHC-A)

Regional Health Command – Europe (RHC-E)

61 Embedded Behavioral Health Teams
22 Multi-Disciplinary Outpatient EBH locations

61 Embedded Behavioral Health Teams
22 Multi-Disciplinary Outpatient EBH locations

EBH
Why are MSK Profile Days Decreasing in the Army?

- Readiness is #1
- Medical Readiness Transformation
- Collaboration between Army Commands
- Readiness focused MSK healthcare delivery
- Screening for at-risk Soldiers
- Physical readiness training
Screening Tools

Medical Readiness Assessment Tool

MOTION

Preoperative Resilience Predicts Postoperative RTD and Outcome Scores for Arthroscopic Bankart Repair (Shaha, et al.)