UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND READINESS

The Honorable Jack Reed
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

DEC 13 2023

Dear Mr. Chairman:

The Department's response to House Report 117–397, pages 205-206, accompanying H.R. 7900, the National Defense Authorization Act for Fiscal Year 2023, "Sustainment of Critical Medical Skills," is enclosed.

The Assistant Secretary of Defense for Health Affairs, in coordination with the Director, Defense Health Agency (DHA), the Secretaries of the Military Departments, and the Joint Staff Surgeon, are actively pursuing initiatives as described in the full report to increase medical readiness training at a time where there are fewer deployments to maintain a heightened level of medical readiness. The report documents ongoing initiatives led by the DHA Joint Trauma System, in coordination with the Military Medical Departments.

Thank you for your continued strong support for the health and well-being of our Service members, veterans, and their families. I am sending a similar letter to the House Armed Services Committee.

Sincerely,

[redacted]

Ashish S. Vazirani
Acting

Enclosure:
As stated

cc:
The Honorable Roger F. Wicker
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND READINESS

The Honorable Mike D. Rogers
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

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Sincerely,

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Ashish S. Vazirani
Acting

Enclosure:
As stated

cc:
The Honorable Adam Smith
Ranking Member

Report to the Committees on Armed Services of the Senate and the House of Representatives

Sustainment of Critical Medical Skills

December 2023

The estimated cost of this report or study for the Department of Defense is approximately $5,000 for the 2023 Fiscal Year. This includes $3000 in expenses and $2,000 in DoD labor.

Generated on 2023Mar13 RefID: 4-92FBCDD

Introduction

This report is in response to House Report 117–397, pages 205-206, accompanying H.R. 7900, the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2023, where the committee expressed concerns about a possible reduction of medical readiness training for Service members. The committee notes: "casualties were reduced during recent conflicts due to enhanced recertification, training standards, and the development of new medical devices. While there are fewer scheduled deployments currently, it is still critically important for Service members to maintain a heightened level of medical readiness." The committee requested that the Assistant Secretary of Defense for Health Affairs (ASD(HA)) submit a report to the Committees on Armed Services of the Senate and the House of Representative which, at a minimum, includes the following:

> (1) a description of efforts by the Department of Defense to maintain a heightened level of medical readiness and how these efforts will allow our medical personnel to be ready to respond to a conflict in the Indo-Pacific;
> (2) any recent updates on the certification standards for service members on Tactical Combat Casualty Care;
> (3) strategic investments made in medical simulation training centers and efforts to improve financial efficiency; and
> (4) an analysis on the effectiveness of training devices that can precisely replicate Tactical Combat Casualty Care.

This report documents ongoing initiatives led by the Defense Health Agency (DHA) Joint Trauma System (JTS), in coordination with the Military Medical Departments.

The JTS is spearheading several efforts to sustain and enhance a heightened level of medical readiness to support future conflicts in the Combatant Commands (CCMDs) with a special emphasis on the European and Indo-Pacific Commands. As early as 2018 when drawdowns in combat operations were occurring, the Military Health System (MHS) turned to their Joint Integration Capabilities Development System process to identify gaps in joint warfighter requirements across the Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTmLPF-P) spectrum. This process resulted in tasks from the Vice Chairman of the Joint Chiefs of Staff (VCJCS) within the MHS across several functional areas in support of "critical medical skills" or what was termed as highly perishable mission essential medical skills (HPMEMS).

The "Medical Readiness Skills Sustainment," DOTmLPF-P Change Recommendation (050-19) signed by the then-VCJCS on May 28, 2019, directed the Joint Staff Surgeon, in collaboration with DHA, the Military Departments (MILDEPs), and CCMDs, to guide efforts across the DOTmLPF-P spectrum to:

- Identify and define those medical knowledge, skills, and abilities (Med-KSAs) which are highly perishable and mission-essential in a deployed environment.

- Revise pre-deployment training programs for medical personnel involved in patient treatment to focus on those appropriate mission-essential skills and associated Med-KSAs.

- Develop risk assessment processes and associated guidelines designed to assist the medical leadership to inform operational commanders concerning medical skills degradation and its impact on medical care within their commands.

- Develop means of countering skill degradation for medical personnel while deployed across the range of military operations.

The ASD(HA) worked closely with the Military Medical Departments, through the Under Secretary of Defense for Personnel and Readiness, to revise several legacy Department of Defense (DoD) issuances that provide strategic guidance on maintaining contingency related trauma skills. In a parallel and supporting effort, the Director, DHA focused attention on the Agency Campaign Plan aligning the strategic initiatives with law, policy, and validated joint warfighter requirements. The DHA 22-26 Campaign Plan outlines four strategic priorities: 1) Great Outcomes; 2) Ready Medical Force; 3) Satisfied Patients; and 4) Fulfilled Staff. The Ready Medical Force strategic priority directly supports sustainment of medical skills and captured in the Director's Sustainment of Expeditionary Medical Skills (SEMS) Strategic Initiative.

Part I – Heightened Level of Medical Readiness in Support of Combatant Commands

DHA's SEMS plan was assigned to the JTS for execution and is DHA's strategy for the sustainment of expeditionary medical skills, focusing on HPMEMS in accordance with the Joint Requirements Oversight Council Memorandum 050-19. This supports the DoD's goal to optimize the nation's trauma care delivery for casualties of war and stateside victims of national disasters as outlined by Department of Defense Instruction (DoDI) 6010.22, "National Disaster Medical System (NDMS)," April 14, 2016, and supported by the 2016 National Trauma Care System report, as well as sustain a ready medical force. This effort focuses on two key areas: (1) enabling and sustaining expeditionary medical skills, with a focus on HPMEMS among deployable medical teams, to include medics and corpsmen (hospital and pre-hospital); and (2) developing a national trauma system that leverages Military-Civilian Partnerships (MCPs) to provide a robust national disaster trauma response capability pursuant to the NDAA for FY 2017; DoDI 6000.19, "Military Medical Treatment Facility Support of Medical Readiness Skills of Health Care Providers," February 7, 2020; and DoDI 1322.24, "Medical Readiness Training," March 16, 2018, as amended.

The JTS, as the reference body for trauma care provided across the MHS, recognizes that there is a need to establish a holistic strategic program to man, train, and equip an advanced resuscitation and surgical care capability that can be interoperable in a joint force environment. Foundational to this is the medical force's ability to attain and sustain HPMEMS while assigned to DHA's military medical treatment facilities (MTFs). It supports the MHS in achieving zero preventable deaths from survivable injuries acquired in the deployed settings. When the clinical volume and acuity to maintain HPMES cannot be sustained in the MTFs, MCPs can bridge this gap and

leverages expertise, experience, and patient volume of civilian medical systems to maximize readiness opportunities for the entire medical force. Through the establishment of a national trauma system, outlined in the 2016, National Academies of Sciences, Engineering, and Medicine report, "A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths," the MHS reinforces the development and sustainment of expeditionary medical skills, establishing a ready medical force which remains prepared to deploy in support of contingency operations worldwide. The MHS must synchronize clinical currency with medical readiness training requirements using Med-KSAs thresholds that positively impacts medical force readiness and the quality of care provided to our beneficiaries.

On April 7, 2022, the then-Official Performing the Duties of the ASD(HA) published the memorandum, "Sustainment of the Military Health System Joint Knowledge, Skills, and Abilities Clinical Readiness Program," outlining key responsibilities for the sustainment of the MHS Joint Knowledge, Skills, and Abilities (JKSA) clinical readiness program, to include establishment of a consolidated JKSA Program Management Office (PMO) within the JTS Division of DHA.

Med-KSAs are foundational for maintaining the clinical readiness and interoperability of critical wartime specialties and other MILDEP-defined joint interoperable specialties. They support the MILDEPs' title 10, U.S. Code, authority to organize, train, and equip ready medical personnel to meet CCMD requirements and emerging threats. In carrying out this responsibility, the MILDEPs ensure Med-KSAs enable presentation of medical force elements that are integrated, as defined in the Joint Warfighting Concept. The consolidated JKSA PMO within the JTS Division of DHA provides administrative oversight and management of the Med-KSA development process. The JKSA PMO supports Med-KSA implementation, which collects and analyzes data on Med-KSA achievements, while providing a common, enterprise-wide view of clinical readiness attained through the MHS JKSA clinical readiness program.

Part II – Tactical Combat Casualty Care (TCCC) Certification Standards

DoDI 1322.24 established baseline joint medical readiness standards pursuant to section 708(b)(6) of the NDAA for FY 2017. DoDI 1322.24 outlines various medical readiness training requirements although the most prominent change was that the MILDEPs will replace the first aid training with TCCC. Additionally, DoDI 1322.24 outlined a four-tiered system to ensure all Service members were able to effectively treat trauma victims/casualties in the prehospital environment.

The first opportunity to improve outcomes is to continue to focus on the prehospital medical care, which remains the largest training gap when it comes to medical readiness for the Indo-Pacific theater. One of the largest advances in military medicine is the requirement for the Services to implement TCCC, making sure all Service members are trained and certified. Enforcement of TCCC training, coupled with the training oversight by an operational commander and a CCMD priority, will continue to decrease death from potential survivable traumatic injury. It is imperative that the Services have a sustained focus on the Role 1 care and readiness for combat operations in a dispersed and denied environment. The Indo-Pacific theater

has substantial challenges given the dispersion of operations and the logistics/supply chain to the maritime and littoral environment.
Programs that are meeting the need for the operational medical challenges in the Indo-Pacific theater focused on Role 1 provision of care are TCCC Tiers 1 to 3 and Walking Blood Bank Training. Both the Army and the Marine Corps are championing WBB training. Tier 3 TCCC training is delineated by the JTS on the Deployed Medicine and JTS websites. With local leadership support, the Marine Expeditionary Force established the Valkyrie Program that was based on the JTS clinical practice guideline and Tier 3 TCCC training; it is the recommendation of the JTS that the Marine Corps' Valkyrie or a similar program be adopted by the Joint Forces for practical WBB training. Blood transfusion close to the point of injury saves lives in the Golden Hour and blood availability at sea continues to be a gap.

An Indo-Pacific conflict will require all Military Services to be engaged and interoperable, especially for the en route and austere surgical care settings. Combatant Commanders would greatly benefit by leading an effort through the Joint Staff to develop a set of mandatory medical Joint Interoperability standards across the CCMDs.

While there remains no team training requirement at present by the Military Departments for Role 2 austere surgical team tactical and operational training, JTS and the MILDEPs have formed a working group to develop joint austere surgical team training standards.

The then-Acting ASD(HA) provided initial guidance on the implementation and certification standards in a policy memorandum on April 17, 2018, "Implementation of Tactical Combat Casualty Care in the Department of Defense." Implementation guidance outlined that the MILDEPs were to identify the number personnel that required TCCC training, and the number of trainers needed to include the number of training sites needed and to identify the Service-designated training tracking systems. On April 4, 2019, the then-Principal Deputy ASD(HA) provided clarifying guidance:

> Successful institutionalization means that the Secretaries of the Military Departments (MILDEPs) have replaced Service trauma skills currently taught in first aid, self-aid, and buddy care courses with the role-appropriate TCCC skill level courses no later than (NLT) April 30, 2020, with TCCC training courses audit ready NLT May 2020, to include training, instructor, and location quality. All trauma training institutions across the Department that either previously taught first aid, self-aid, and buddy care, or some variation of TCCC (not approved by the DHA's Joint Trauma System) must teach the new DHA standardized TCCC curriculum developed in coordination with the Secretaries of the MILDEPs, upon distribution by the Director, DHA.

Within this memorandum, the then-Acting ASD(HA) additionally provided guidance on certification tracking:

> …the Secretaries of the MILDEPs will also take the necessary actions to record TCCC certification, using the new standardized DHA TCCC curricula, in Service-designated training tracking systems.

The last TCCC certification guidance came on August 13, 2021, the then-Acting ASD(HA), published a memorandum, "Tactical Combat Casualty Care Update: Revised Timeline and New Working Group." The memorandum acknowledged the constraints imposed by coronavirus disease 2019, granting the MILDEPs more time to fully institutionalize TCCC. The memorandum states: "…the suspense for the MILDEPs to institutionalize TCCC across all four tiers is extended until not later than 6 months following release of the final curriculum for TCCC Tier 4." The JTS continues to lead the Comprehensive Curriculum Development and Initial Implementation Working Group with a tentative Tier 4 TCCC curriculum delivery date of December 2023.

Part III – Medical Simulation Training Center Strategic Investments

The Defense Medical Modeling and Simulation Office (DMMSO) is the lead organization within the MHS for the centralized coordination and management of shared service medical modeling and simulation (MM&S) activities in support of MHS education and training. Through DMMSO regulatory oversight, provided for in Director, DHA Memorandum, "Establishment of the Defense Medical Modeling and Simulation Office," December 20, 2016, the DMMSO provides more opportunities for clinics and smaller MTFs to employ DHA-owned simulation program resources. DHA understands simulation centers and simulation-based training programs can be costly to build and maintain and require substantial long-term investment from the MILDEPs. DMMSO through governance, detailed below, identifies strategic investments in medical simulation training centers and to identify financial efficiencies to improve the execution of the MM&S apparatus.

DoD Policy: DMMSO has two approved policy documents which elevate the medical simulation apparatus to an MHS enterprise level and places an emphasis on coordination across the MILDEPs.

1. DoDI 6000.18, "Medical Modeling and Simulation Requirements Management," August 22, 2018

Purpose: Establishes policy and assigns responsibilities to form and maintain a DoD capability that supports a full range of MM&S for planning, decision-making, and education and training programs through MHS requirement development and approval to achieve MHS standardized MM&S solution sets. Charges DHA to budget annually to implement and maintain the MHS MM&S enterprise requirements for capture, oversight, and approval to support MHS MM&S for planning, decision-making, and education and training solutions.

2. DHA-Administrative Instruction 6000.01, "Medical Modeling and Simulation Requirements and Implementation Guidance for Training," March 11, 2022

Purpose: Establishes DHA procedures to oversee, manage, and administer MM&S functions across the MHS and identifies, develops, and implements medical training MM&S strategies to improve outcomes, determine measures of effectiveness, reduce training variability, and optimize return on investment.

MHS Governance: The DHA Simulation Requirements-Integrated Product Team (SR-IPT), in collaboration with DHA Medical Affairs, validates simulation training needs to support requirements endorsed by the DMMSO. The SR-IPT determines which validated simulation training requirements are submitted for resourcing and coordinates with the Medical Simulation Training Program Management Office and/or the Education and Training Panel. The SR-IPT develops the MHS enterprise simulation strategy to inform acquisition. This collaboration results in the identification of common requirements and simulation packages as candidates for enterprise contracting opportunities that supports improved financial efficiencies.

The MM&S Senior Requirements Board is a Service-centric requirements body established by DHA to facilitate collaboration in the identification of joint requirements to facilitate joint investment to reduce overall costs. The MHS Simulation-Based Training Delivery Capabilities-Based Assessment resulted in the identification of 40+ capability gaps with many being addressed through various DHA initiatives such as the Agency's Campaign Plan, SEMS initiative.

Initiatives: Complicated Obstetrical Emergency Simulation – The Women and Infant Clinical Community developed standardized training for all levels and licensure of perinatal staff to include standardization of simulation participation requirements. Simulation equipment packages were designed to assist in the in-situ drill of high risk, low frequency clinical scenarios. DHA's Medical Modernization and Simulation Division, in conjunction with the Medical Simulation Training PMO, has attained funding and is executing the acquisition process to obtain simulators to support the requirement established in DHA-Procedural Instruction 6025.16, "Processes and Procedures for Implementation of Standardized Perinatal Training," April 30, 2019. which states DHA is responsible for establishing standard procedures for implementing evidence-based training to all healthcare personnel delivering perinatal care at each MTF.

This initiative will lead to financial efficiencies by executing a MHS enterprise-level contract to reduce the cost of simulation package purchases compared to individual MTFs acquiring equipment on their own.

The Army's, Readiness and Operational Virtual Health team has introduced virtual health training scenario suggestions and provided information on existing virtual health capabilities to seven Army Medical Simulation Training Center sites and plans to visit seventeen more over the next year.

Part IV – Analysis of Effectiveness of TCCC Training Devices

Deployed Medicine: In support of DoDI 1322.24, DMMSO, in collaboration with the JTS, developed a list of standardized logistical requirements for all tiers of TCCC training. This allowed the DoD to standardize equipment and purchase in bulk for training needs. Tier 2 and Tier 3 training events are conducted at DHA Simulation Centers, which reduces Service costs. Within the Deployed Medicine suite of tools, DHA's Joint Trauma Education and Training branch (developed in response to the section 708 of the NDAA for FY 2017), has developed skill

cards to standardize the TCCC assessments. These cards provide a standardized method of evaluating Service members training on TCCC simulation devices.

Joint Simulation Encounters Form (JSEF): The JSEF will give DHA the ability to capture training encounters from all simulation programs. Data captured will inform the enterprise on the number of students utilizing simulation equipment at the MTF level. This information informs resourcing by assisting in the justification of requests for facility space, manpower increases to deliver MM&S programs, and equipment purchases. The JSEF originally launched in FY 2022 and is currently in its initial roll out and refinement.

A large-scale initiative to analyze the effectiveness of the TCCC training devices will be implemented 6 months after the TCCC program completes implementation (planned TCCC Tier 4 delivery date December 2023).

Conclusion

With the drastic reduction in U.S. forces in the Middle East following the end of Operations ENDURING FREEDOM and IRAQI FREEDOM, the MHS is in a period of interwar vulnerability for medical skills due to a reduction of combat injuries and the medical management associated with the treatment and evacuation of those patients. The JTS is dedicated and focused on addressing the readiness gaps and the sustainment of HPMEMS. Foundational to providers being able to manage the challenges of clinical care for combat casualties is that they have clinical care opportunities for high acuity patients in the MHS Direct Care System; busy clinical practices with high acuity, high volumes of patients in the MTFs improves the ability to perform well in the expeditionary environment. DHA has established a strategic approach that is directly aligned to law, DoD policy, and joint warfighter requirements. The SEMS plan prioritizes the DoD's MTFs as readiness platforms while simultaneously recognizing the integrated approach to establishing robust partnerships between military and civilian institutions and leveraging simulations for those HPMEMS that are integral to saving lives on the battlefield.

References

1. Section 708 of the NDAA for FY 2017 (Public Law 114-328), "Establishment of the Joint Trauma Education and Training Directorate," Interim Report and Implementation Plan, February 14, 2018

2. Strategic Initiative Change Plan, "Sustain Expeditionary Medical Skills Strategic Initiative," October 28, 2022

3. DoDI 6000.19, "Military Medical Treatment Facility Support of Medical Readiness Skills of Health Care Providers," February 7, 2020

4. DoDI 1322.24, "Medical Readiness Training," March 16, 2018 as amended

5. Acting ASD(HA) Memorandum, "Implementation of Tactical Combat Casualty Care in the Department of Defense," April 17, 2018

6. Office of the ASD(HA) Memorandum, "Institutionalization Milestones of Tactical Combat Casualty Care Training, Certification, and Reporting in the Department of Defense," April 4, 2019

7. Acting ASD(HA) Memorandum, "Tactical Combat Casualty Care Update: Revised Timeline and New Working Group," August 13, 2021

8. Inspector General Report No. DODIG-2020-087, "Audit of Training of Mobile Medical Teams in the U.S. Indo-Pacific Command and U.S. Africa Areas of Responsibility," June 8, 2020

9. National Academies of Sciences, Engineering, and Medicine. 2016. A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury. Washington, DC: The National Academies Press. https://doi.org/10.17226/23511.

10. DoDI 6010.22, "National Disaster Medical System (NDMS)," April 14, 2016

11. Title 10, United States Code