Concept of Operations for the
Combatant Command Trauma System

Defense Health Agency

JOINT TRAUMA SYSTEM

24 Oct 2020

PREFACE

This Concept of Operations (CONOP) document provides a conceptual overview of the Combatant Command Trauma System Operations. It is a living document that will be updated periodically as warranted in response to the changing operating environment characterized by evolving Department of Defense (DoD) requirements, technology and best business practices.

REFERENCES

1. DoD Instruction 6040.47, "Joint Trauma System (JTS)," September 28, 2016 Incorporating Change 1, August 5, 2018
2. DHA-Procedural Instruction 6040.06, "Combatant Command Trauma System (CTS)," September 8, 2020
3. DoD Directive 5136.13, "Defense Health Agency (DHA)," September 30, 2013
4. DoD Directive 3000.06, "Combat Support Agencies (CSAs)," June 27, 2013, Incorporating Change 1 Effective July 8, 2016
5. Joint Publication 3-0, "Joint Operations," January 17, 2017, Incorporating Change 1 Effective October 22, 2018
6. DoD Instruction 6055.17, "DoD Emergency Management (EM) Program," February 13, 2017, Incorporating Change 3 Effective June 12, 2019
7. DoD Directive 3020.44, "Defense Crisis Management," June 4, 2007, Incorporating Change 2 Effective August 22, 2019
8. Joint Publication 3-28, "Defense Support of Civil Authorities," October 29, 2018

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PURPOSE

This CONOP provides guidance to support Combatant Commanders (CCDRs) in the establishment of a CTS pursuant to DoD Instruction (DoDI) 6040.47 "Joint Trauma System (JTS)," Sep 28, 2016, which can be scaled to deliver casualty care and performance improvement (PI). CTS supports the CCDR across a full range of military operations (ROMO) which includes combat operations, post-conflict operations, or other contingency operations as directed. It describes how the DHA's JTS will provide support to the CCDRs with the establishment of a CTS.[1,2]

BACKGROUND

A trauma system allows for standardization of care, development of clinical benchmarks, PI, communication (secure and non-secure), transport, and treatment networks that optimize patient outcomes, resource utilization, and data-driven decision making. Civilian trauma systems in the United States, which evolved out of lessons from the Vietnam War, were leveraged to improve outcomes in non-traumatic emergencies such as cardiac arrest, stroke, overdose, sepsis and mental health crises. An effective CTS designed to optimize combat casualty care will improve outcomes for disease and non-battle injury (DNBI), which historically constitute the majority of casualties in wartime and peacetime.

1. SITUATION

Each CCDR is directed to plan for and develop a CTS as an organized PI system (modeled after the former USCENTCOM, Joint Theater Trauma System) under the oversight of the Combatant Command (CCMD) Surgeon (SG).[1] The DHA will provide support to each CCDR to establish an enduring CTS capability. Establishment of the CTS is best implemented and rehearsed prior to contingency operations, so that it is prepared to deliver optimal care at the onset of conflict, inform leadership and conduct continuous PI.

2. MISSION

The DHA Director supports the CCDR to establish a CTS within each geographic CCMD, as well as United States Transportation Command (USTRANSCOM) and United States Special Operations Command (USSOCOM), that assists in trauma system planning, treatment, management, and improvement of casualty outcomes to include battle injuries, disease non-battle injuries and all-hazard settings[5,6] through evidence-driven PI. It also supports the requirement[7,8] for DoD to have a comprehensive and effective defense crisis management capability, coordinated among the DoD Components, to develop and execute options to prevent, mitigate, or respond to a crisis under all circumstances.

3. EXECUTION

The CTS is a PI capability that can adapt to contingency requirements identified by the CCMD SG, as advised by the Trauma Medical Director (TMD). The CTS consists of a JTS-trained trauma management team (TMT) supported by the JTS PI infrastructure. The CTS operates with the developmental guidance and clinical oversight of the JTS, within its capacity as the DoD reference body for trauma care. The CTS can be scaled to the size of the conflict/contingency as required.

4. DIRECTOR'S INTENT

The DHA, as a combat support agency (CSA)[3, 4] will assist the CCDRs in the establishment of the CTS and provide all support required as outlined in DoD Directive 5136.13, "Defense Health Agency," DoD Directive 3000.06, "Combat Support Agencies," DoDI 6040.47, "Joint Trauma System" and DHA-Procedural Instruction (DHA-PI), "Combatant Command (CCMD) Trauma System (CTS)."

5. LEVELS OF CTS SUPPORT

In general terms, there are four levels of CTS support that correspond to the size and operational activity of the military operation. The potential volume of casualties and complexity of the deployed medical system influences the size and function of the CTS team more than the actual phase of the operation.

a. Support before actions occur provides an initial framework to the CTS with the assistance of a CCMD SG identified TMT. The Services are required to provide all required equipment and pre-deployment training (outside of the DHA sponsored and funded CTS Training) to support CTS functions. The intention is to help the CCMDs stand up or ensure they have a CTS established to meet their needs. JTS has a Trauma Assessment Team that is available to help enable and evaluate the specific CCMD's CTS during exercises and as requested on an ad hoc basis.

b. Once military operations commence or increase and require a designated lead for surgical support, JTS will provide additional support to the TMT. This support will assist with conducting detailed planning and synchronization with forward deployed personnel and organizations.

c. When military operations exceed TMT personnel's capability to conduct both medical treatment facility (MTF) and CTS PI activities, MTF duties will be separated from the TMT and an expanded TMT, as required, should be requested by the CCMD SG. When needed, additional deployable TMT personnel will be requested from DHA or the Military Departments through a pre-established unit type code (UTC) or request for forces (RFF). These additional personnel will complete pre-deployment TMT training with JTS as detailed above.

d. As military operations scale down, a TMT dedicated full-time to CTS responsibilities may no longer be required to manage the trauma system and the TMT may be dual-hatted (reassigned both MTF clinical responsibilities and PI activities). JTS will be prepared to assist the CCMD SG during this transition and ensure critical PI data continues to be collected and analyzed. This data will be provided to the CCMD to assist in evaluating risk and implementing mitigation strategies as required.

6. CONOP/OPERATIONAL PHASES OF EMPLOYMENT

a. **Phase 0 (Shape)/Steady-state operations**: The TMT consists of a TMD, Trauma Program Manager (TPM, registered nurse) and a Trauma Registrar (Patient administration officer or enlisted specialist) identified from in-garrison locations to provide part-time (at least 0.2 FTE) support for the CTS requirements.

(1). The phase 0 TMT supports the CCMD SG to establish the framework of a CTS as outlined in DoDI 6040.47, "Joint Trauma System (JTS)" and DHA-PI 6040.06, "Combatant Command (CCMD) Trauma System (CTS)."[1,2]

(2). The TMT supports planning and participates in CCMD directed exercises to rehearse a deployed PI capability.

(3). During the operational phases (Predominant Military Activities Phases I-V 5), CTS personnel should be forward deployed with operational support at all times from JTS but still rely on the Services and CCMD for basic deployment requirements.

b. **Phase I (Deter):** A TMT is designated as the lead surgical support MTF (Role 2 or 3) and receives JTS training prior to deployment. When casualty numbers are low, the TMT may be dual-hatted, supporting the forward deployed MTF clinical activities as well as the CTS. The CTS team advises the CCMD SG on trauma, major medical and all-hazards system readiness and plans, and oversees the implementation of the 12 core functions of the CTS as described in the CTS DHA-PI.[2]

c. **Phase II (Seize)-III (Dominate):** During the most kinetic phases of the operation, the greatest number of casualties is anticipated. When the size of the operation and number of casualties exceeds the ability of TMT personnel to conduct both MTF and CTS PI activities, a TMT dedicated solely to the CTS PI mission should be requested by the CCMD SG. It is optimal to have a team that is free from direct clinical duties and can travel throughout the trauma system to conduct site assessments, verify readiness, educate personnel and investigate opportunities for improvement. The size of the CTS team should be scaled to operational needs, and additional PI personnel may be requested to augment the TMT.

(1). Ideally, CTS team members supporting the phase 0 CTS framework have already developed regional expertise in the supported CCMD area of operations (AOR) and are the first TMT to deploy to the CCMD AOR.

(2). With large-scale operations, additional deployable TMT personnel may be requested from DHA or the military departments through a pre-established UTC or RFF. In addition to the TMD, TPM, and Trauma Registrar, a Prehospital Medical Director, and Senior Enlisted Advisor may be added.

(3). Additional PI staff may also be requested by the CCMD SG based on contingency requirements identified by the CCDR.

d. **Phase IV (Stabilize)-V, (Enable Civil Authority):** During these phases, casualty numbers may be lower. A TMT dedicated full-time to CTS responsibilities may no longer be required to manage

the trauma system. The TMD and TPM may be dual-hatted with clinical and administrative responsibilities at the forward deployed lead MTF while still managing PI activities for the CTS.

(1). Operational planning phases: Illustrate a scaled approach to CTS support, however military operations that fall outside of the construct of phased operations still require a scaled CTS capability to provide evidence-driven PI. The same approach should be implemented based on the number of casualties anticipated. The requirement as outlined[1,2] states that a CTS framework must be established and sustained in each CCMD at all times in order to be prepared to rapidly expand in the event of contingencies.

(2). The TMD: Provides trauma subject matter expertise to the CCMD SG and serves as liaison to the JTS Chief. In order to comply with the requirements during phase 0 operations, the CTS staff should be stationed at a regionally aligned DHA administered MTF or embedded in a civilian trauma partnership in geographic proximity to the CCMD headquarters. CTS staff should remain clinically active with CCMD staff functions considered additional duties (0.2 to 0.5 FTE). During combat/contingency operations, the TMT should transition to deployed positions as needed to meet mission requirements.

(3). TMT Employment: Supports the CTS PI activities must retain maximum flexibility to support the CCDR during all phases of operations and optimize trauma system performance. As principal trauma system advisor, the TMD for the AOR will advise the CCMD SG regarding the utilization of trauma resources to effectively meet the mission.

7. SERVICE SUPPORT/ADMINISTRATION AND LOGISTICS

JTS, through the Assistant Director Combat Support (AD-CS), DHA, provides support to CTS planning and operations through the use of the DoD Trauma Registry, trauma system subject matter experts, PI capabilities, clinical practice guidelines, minimum Joint Standards for trauma training, the Defense Committees on Trauma (DCoT) and the Joint Trauma Education and Training Branch. This may also be expanded to support all-hazards contingencies to include crisis response and contingency operations support.

a. JTS will sponsor and fund training for all CTS-appointed personnel and will establish an additional deployable TMT UTC within DHA. DHA will coordinate with the Services for equipment and pre-deployment training as required to establish the DHA TMT capability.

b. The CTS staff are responsible to establish/maintain the 12 core functions of a trauma and all-hazards medical response system as described in the CTS DHA-PI; to engage in regularly scheduled meetings with the CCMD SG staff (at least monthly); to participate in trauma system planning; to establish regional expertise; and to participate in major CCMD exercises. Major exercises that involve a response to casualties should exercise the CTS functions and PI capability. When requested by the CCMD SG, the TMT should conduct a trauma, major medical and all-hazards system assessment in collaboration with JTS using a standardized process with an overall goal of identifying opportunities for improvement within the trauma system.

c. The DHA as a designated CSA4 will exercise the authority and fulfill the responsibilities and functions of a supporting agency to CCDRs planning or executing military operations, consistent with the CSA's established functions and responsibilities. In addition, the DHA will deploy CTS

capability into a CCDR's AOR in response to validated CCMD requests for support and deployment authorization by the Secretary of Defense.

8. COMMAND AND SIGNAL

There are several unique command relationships for trauma, major medical and all-hazards system management.

a. During phases of operations when the TMT is dual-hatted with clinical responsibilities as well as CTS responsibilities, the CTS staff will report to the Medical Task Force Commander or Lead forward deployed MTF Commander as appropriate.

b. During phases of operations when the TMT is full-time dedicated to its CTS mission and not supporting MTF clinical operations, the TMD will report directly to the CCMD SG (operational control) but will require forward support from the Medical Task Force or Lead MTF Commander (tactical control) and administrative support from Service components (administrative control).

c. The JTS organization will designate one physician and one PI specialist (on an enduring bases), with trauma system subject matter expertise, to serve as the support teams for each geographic CCDR and select functional CCDRs (USTRANSCOM and USSOCOM) with validated CCDR requirement. These individuals will serve as the points of contact within JTS to coordinate and provide support to CTS PI activities and communicate with the corresponding DHA liaison officer to each CCMD.

d. Both JTS and CTS teams require access to secure communications and non-classified internet and communication systems.

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GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

AOR	area of responsibility
CCMD	Combatant Command
CCDR	Combatant Commander
CTS	Combatant Command Trauma System
CSA	Combat Support Agency
DCoT	Defense Committee on Trauma
DHA	Defense Health Agency
DHA-PI	Defense Health Agency-Procedural Instruction
DoDI	Department of Defense Instruction
DoDTR	DoD Trauma Registry
FTE	full time equivalent
JTS	Joint Trauma System
MTF	medical treatment facility
PI	performance improvement
ROMO	range of military operations
RFF	request for forces
SG	surgeon
TMD	Trauma Medical Director
TMT	Trauma Management Team
TPM	Trauma Program Manager
UTC	unit type code

PART II. DEFINITIONS

Unless otherwise noted, these terms and their definitions are for the purpose of this CONOP.

All-hazards. A threat or an incident, natural or manmade, which warrants action to protect life, property, the environment, and public health or safety, and to minimize disruptions of government, social, or economic activities. It includes natural disasters, cyber incidents, industrial accidents, pandemics, acts of terrorism, sabotage, and destructive criminal activity targeting critical infrastructure (Presidential Policy Directive PPD-21).

Casualty. Any person who is lost to the organization by having been declared dead, duty status—whereabouts unknown, missing, ill, or injured.

Clinical practice guidelines. Statements and recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options.

Crisis response and contingency operations. A crisis response or contingency operation can be a single small-scale, limited-duration operation or a significant part of a major operation of extended duration involving combat. The associated general strategic and operational objectives are to protect US interests and prevent surprise attack or further conflict. Included are operations to ensure the safety of American citizens and US interests while maintaining and improving US ability to operate with multinational partners to deter the hostile ambitions of potential aggressors. Such operations involve a combination of military forces and capabilities in close cooperation with inter-organizational partners (JP 1.0).

CSA. A Department of Defense agency so designated by Congress or the Secretary of Defense that supports military combat operations. Also called CSA (JP 5-0).

CTS. An organized network of trauma care specialists within each of the Geographical CCMDs (and select Functional CCMDs) responsible for optimizing trauma, major medical and all-hazards care in support of CCDR requirements. The CTS may be scaled to accommodate the ROMO, and consists of a core staff of trauma care specialists assigned to regionally aligned MTFs who may be augmented by additional trauma care specialists, depending upon the phase of operation and level of trauma support required.

DCoT. A multidisciplinary advisory committee comprised of members from the Services, DHA, Joint Staff, and CCMDs that provides subject matter expertise in the areas of Tactical, En Route, and Surgical Combat Casualty Care.

Joint Trauma Education and Training Branch. A trauma education and training branch established within the JTS, Combat Support Directorate, DHA, to execute responsibilities outlined within Section 708 of Public Law 114-328.Registry. An organized system that uses observational study methods to collect uniform data (clinical and other) to evaluate specified outcomes for a population defined by a particular disease, condition, or exposure, and that serves one or more predetermined scientific, clinical, or policy purposes.

JTS. An organization of subject matter experts that serves as a DCoE for performance improvement and the delivery of trauma care. The JTS is responsible for the coordinated effort that supports the global DoD continuum of trauma, major medical and all-hazards care delivery.

Joint Theater Trauma System. A former trauma system that supported monitoring and data collection while embedded within the United States Central Command. Now known as a "CTS."

PI. Activities that ensure appropriate evaluation and treatment of injured Service Members across the continuum of care. Specific focus is on optimization of trauma care by: identifying opportunities for improvement, executing Patient Safety initiatives, decreasing variability, monitoring and analyzing relevant process and outcome measures.

Prehospital Medical Director. A licensed physician (optimally emergency medicine physician fellowship-trained in Emergency Medical Services) who has operational medicine experience, has received trauma system training by the Joint Trauma System, and is assigned or liaison to augment the CCMD Surgeon's staff to provide prehospital medical direction (Physician Assistant or Trauma Nurse with similar qualification may serve as substitute).

Senior Enlisted Medical Advisor. An E-7 or above (optimally a paramedic or Special Operations Combat Medic/Corpsman/Pararescuemen) enlisted medical provider who has operational medicine experience, has received trauma system training by the Joint Trauma System, and is assigned or liaison to augment the CCMD SG's staff for oversight of trauma care.

TMD. A licensed general surgeon (optimally fellowship-trained trauma surgeon) who participates in trauma call, has received trauma system training by the Joint Trauma System, and is assigned or a liaison to augment the CCMD SG's staff for oversight of trauma care.

TPM. A licensed registered nurse who has received trauma system training by the Joint Trauma System that serves as the primary PI process and data entry subject matter expert.

TMT. A deployable DHA or Service JTS-trained team, capable of deploying forward during initial Phase I to Phase V operations in order to establish the CTS capability in support of CCDR requirements.

Trauma Registrar. A patient administration subject matter expert that has the primary duty to ensure all trauma records are abstracted into the DoD Trauma Registry.

Trauma System. A trauma system represents a coordinated effort along a continuum of integrated care, between out-of-hospital and in-hospital providers and specialists, in a defined geographic area that delivers the full range of medical care to injured patients.

Note: Some specific crisis responses or contingency operations may not involve large-scale combat, but could be considered major operations/campaigns depending on their scale and duration (e.g., Operation UNIFIED ASSISTANCE tsunami and Hurricane Katrina relief efforts in 2005, Operation TOMODACHI Japanese tsunami and nuclear relief efforts in 2011).