

Emergency War Surgery Course Joint Trauma System



U.S. Military Health System



Joint Trauma System Battlefield Trauma Educational Program



EWS Military Health System Scenario



A surgeon has a theory that a specific intervention may lead to improved outcomes for battlefield casualties over the course of combat operations in Afghanistan. He would like to collect information to assess his theory.

What organization would support data collection and performance improvement?

EWS Military Health System Objectives



- Be familiar with the military medical system.
- Understand organizational structures within the system.
- Understand the military surgeon's role in the organization.

CHAIN OF SURVIVAL AND RECOVERY ACROSS THE GLOBAL CONTINUUM OF CARE

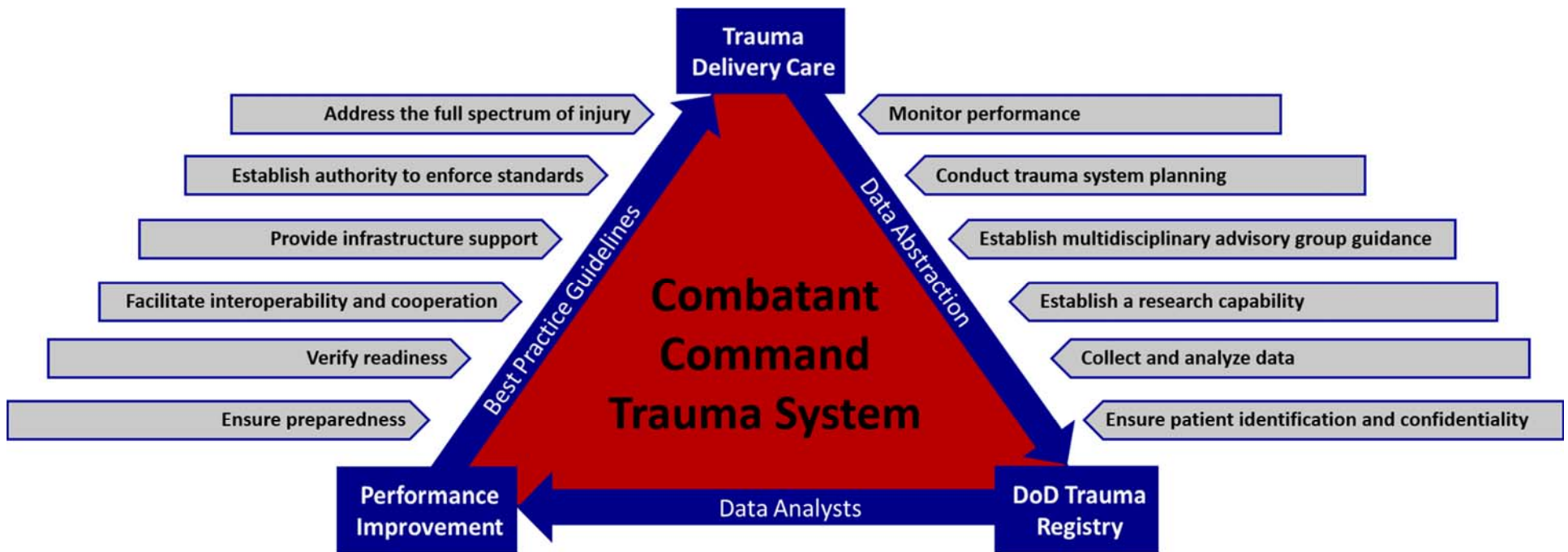


EWS Military Health System Background



- **Trauma system:** Organized, coordinated effort in a geographic area
 - ❑ Continuum of care from point of injury to definitive care
 - ❑ Optimizes trauma care delivery
 - ❑ Shown to reduce morbidity and mortality
 - ❑ Military trauma system works in battlefield and austere environments
- **Combatant Command Trauma System (CTS)**
 - ❑ Led by a team working directly with the Combatant Command (CCMD)
 - ❑ A systematic and integrated approach to performance improvement
- ***A system designed for trauma supports both medical and surgical casualties***

EWS Military Health System CTS Core Functions (12)



CTS Capabilities

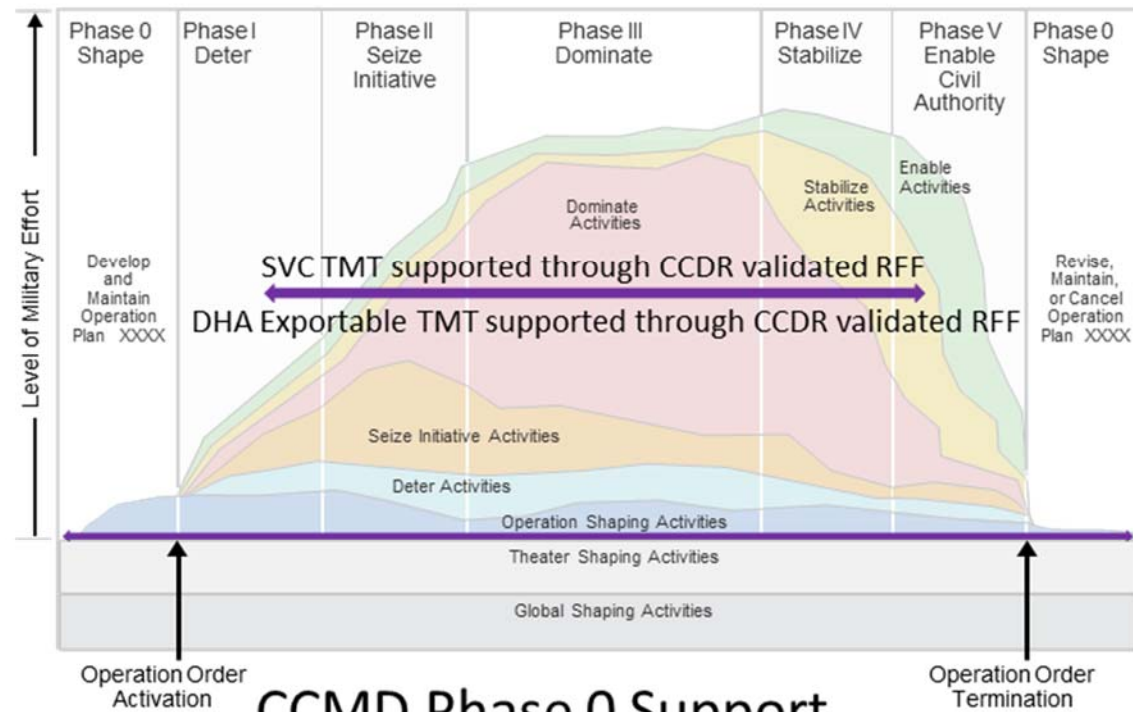
1. Leadership cell
2. Prevention of injury
3. Prehospital trauma care
4. Evacuation
5. Advanced resuscitative care
6. Damage control surgery
7. Inter-facility transfer
8. Definitive surgery
9. In-theater rehabilitation/
Return to duty
10. Long range evacuation
11. CONUS hospitalization
and follow-up care

EWS Military Health System CTS Capabilities



**CTS Supports
All Phases
of Operations**

Joint Operations across the Conflict Continuum
Phasing an operation based on predominant military activities



**CCMD Phase 0 Support
Personnel "JTS Trained"**

EWS Military Health System

CTS Key Personnel



■ Minimum Personnel

- Trauma Medical Director (MD)
- Trauma Program Manager (RN)
- Trauma Registrar (Patient Admin)

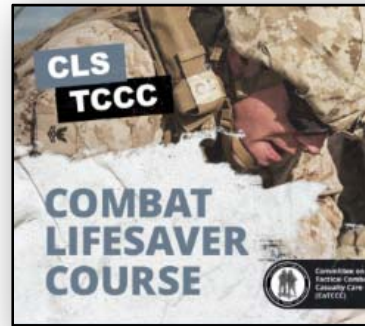
■ Augmented Personnel

- Prehospital Medical Director (MD)
- Senior Enlisted Advisor (Medic)

EWS Military Health System Spectrum of injury



Trauma Education



Inform Prevention

Deliver all roles of care for all patients



EWS Military Medical System CTS Planning



Conduct trauma system planning on evidence-based practices and lessons learned.



EWS Military Health System Data Analysis



Collect and
analyze data

TACTICAL COMBAT CASUALTY CARE (TCCC) CARD

NAME: [Blank] LAST: [Blank]
 GENDER: M F DATE: [Blank] TIME: [Blank]
 SERVICE: [Blank] UNIT: [Blank] ALLERGIES: [Blank]

Mechanism of Injury (X if not apply)
 Artery Blast Burn Fall Grenade IED Landmine MVC PPG Other: [Blank]

Injury (Mark regions with an X)

TQ: R Arm TYPE: [Blank] TIME: [Blank]
 TQ: L Arm TYPE: [Blank] TIME: [Blank]
 TQ: R Leg TYPE: [Blank] TIME: [Blank]
 TQ: L Leg TYPE: [Blank] TIME: [Blank]

Signs & Symptoms (g in the blank)

Time	1340	1351	1400	1410
Pulse (Rate & Location)	110	92	80	70
Blood Pressure	120/80	100/60	80/50	70/40
Respiratory Rate	18	18	18	18
Pulse Oximetry (O2 Sat)	95%	95%	95%	95%
AVPU	A	V	A	A
Pain Scale (0-10)	0	0	0	0



RESUSCITATION RECORD
 Part 1. Nursing Flow Sheet

PATIENT INFORMATION

Name: [Blank] DOB: [Blank] GRADE: [Blank]
 SSN: [Blank] APO: [Blank] APO: [Blank]
 APO: [Blank] APO: [Blank] APO: [Blank]

ADMISSION

Admission Date: [Blank] Admission Time: [Blank]
 Admitted by: [Blank] Admitted to: [Blank]

ADMISSION CHIEF COMPLAINT

[Blank]

ADMISSION VITALS

Temp: [Blank] HR: [Blank] RR: [Blank] BP: [Blank] SpO2: [Blank]

ADMISSION PHYSICAL EXAMINATION

HEENT: [Blank] Chest: [Blank] Abdomen: [Blank] Extremities: [Blank]

ADMISSION LABORATORY

WBC: [Blank] Hemoglobin: [Blank] Hematocrit: [Blank]

ADMISSION TREATMENT

Medications: [Blank] Fluids: [Blank] Blood Products: [Blank]

ADMISSION DISPOSITION

Disposition: [Blank] Disposed to: [Blank]

RESUSCITATION RECORD
 Part 2. Physician Report

PHYSICIAN INFORMATION

Name: [Blank] DOB: [Blank] GRADE: [Blank]
 SSN: [Blank] APO: [Blank] APO: [Blank]

PHYSICIAN CHIEF COMPLAINT

[Blank]

PHYSICIAN VITALS

Temp: [Blank] HR: [Blank] RR: [Blank] BP: [Blank] SpO2: [Blank]

PHYSICIAN PHYSICAL EXAMINATION

HEENT: [Blank] Chest: [Blank] Abdomen: [Blank] Extremities: [Blank]

PHYSICIAN LABORATORY

WBC: [Blank] Hemoglobin: [Blank] Hematocrit: [Blank]

PHYSICIAN TREATMENT

Medications: [Blank] Fluids: [Blank] Blood Products: [Blank]

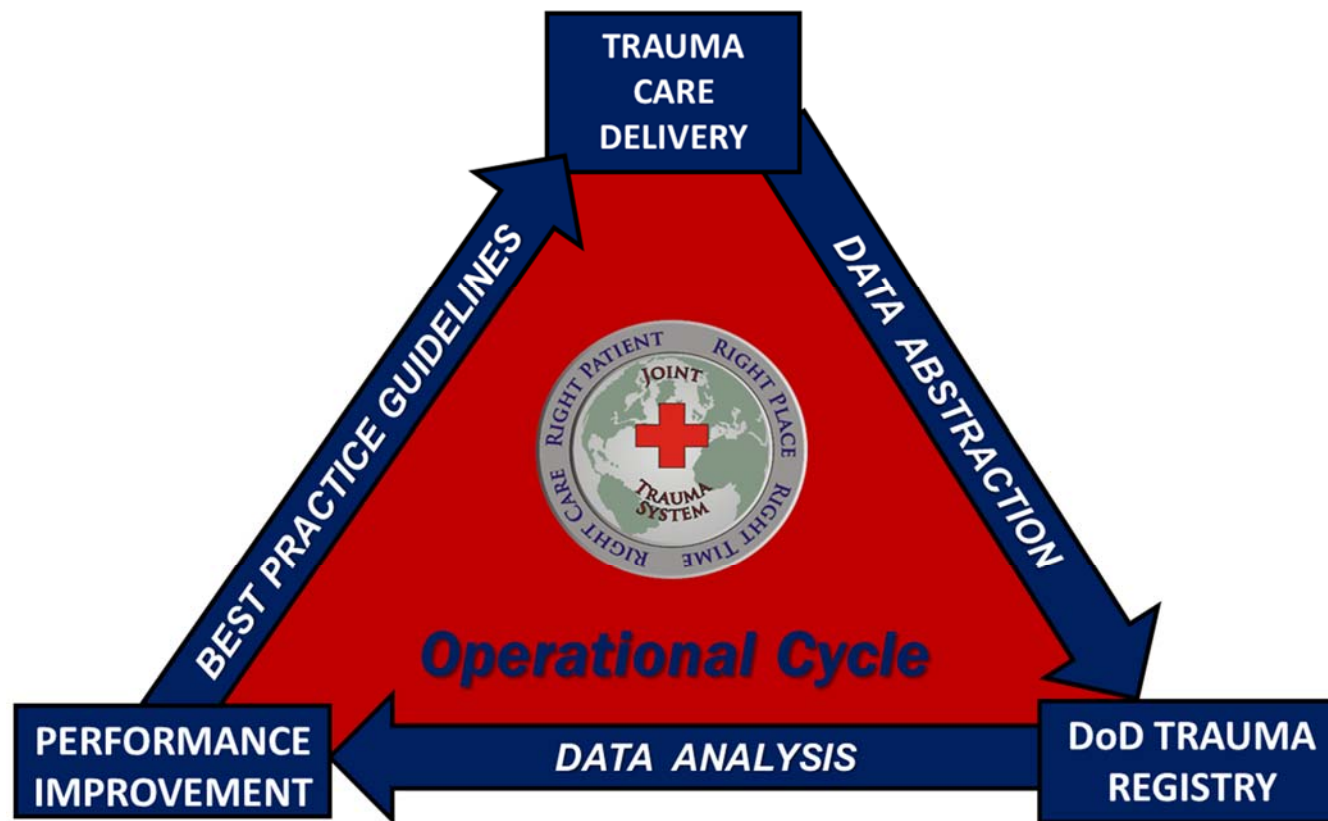
PHYSICIAN DISPOSITION

Disposition: [Blank] Disposed to: [Blank]

EWS Military Health System Joint Trauma System



CTS Core Function: Monitor Performance of Trauma Care Systems



EWS Military Health System Joint Trauma System



Joint Trauma System (JTS) is the DoD Reference Body for Trauma

- *Mission: to improve trauma readiness and outcomes through evidence-driven performance improvement.*
- Provides coordinated capability for injury prevention, care, and rehabilitation in support of DoD trauma initiatives and activities.
- Manages the DoD Trauma Registry (DoDTR)
 - ❑ Web-based global data collection tool with specialty modules (i.e. orthopaedic, traumatic brain injury)
 - ❑ Collects and aggregates combat casualty care epidemiology, treatments and outcomes.
 - ❑ Supports U.S. military performance improvement initiatives.

EWS Military Medical System Defense Trauma Enterprise

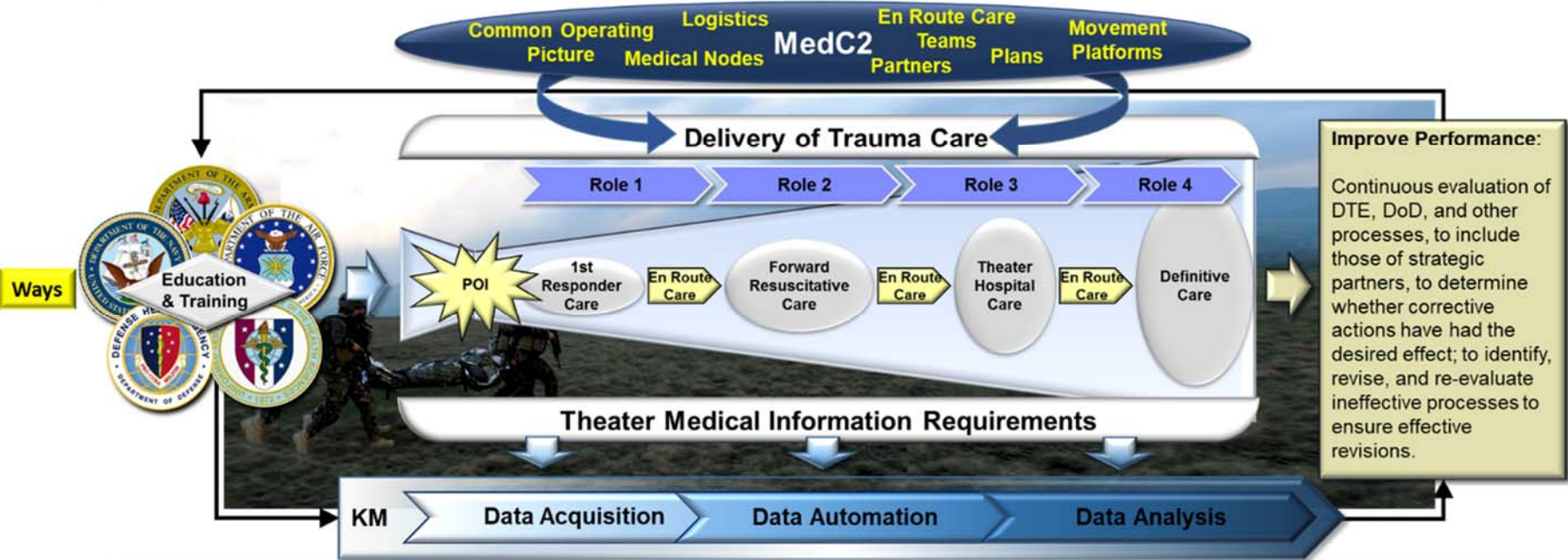


Military Problem



Ends

Improved survivability, patient safety, quality of care, and efficiency in medical operations through effective, efficient, and innovative care and management of medical capabilities necessary to treat trauma-related injuries.



Means

DoD Trauma Enterprise, composed of interoperable Service capabilities, augmented by strategic partnerships, guided by common standards and procedures, and managed by codified DoD mechanisms.

EWS Military Medical System Exercise



A surgeon has a theory that a specific intervention leads to improved outcomes for battlefield casualties over the course of combat operations in Afghanistan. He would like to collect information to assess his theory.

What organization would support data collection and performance improvement?

EWS Military Medical System

Conclusion



-
- Be familiar with Combatant Command Trauma System.
 - Understand organizational structures within the system.
 - Understand the military surgeon's role in the organization.

EWS Military Medical System Multimedia Resources



JTS Website

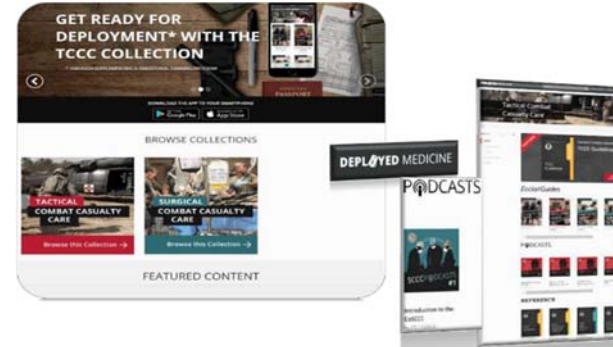
<http://jts.amedd.army.mil/>

- Policy and official activities
- Up-to-date CPGs & training slides
- Forms, documents
- Informative publications
- COVID-19 Resource Links



Deployed Medicine

<https://deployedmedicine.com/>



- Training & Education Resource
- ASM TCCC Curriculum and resources
- Updated videos, podcasts, and resources
- Download CPGs to your smartphone

Audio of all calls posted on
deployedmedicine.com

EWS Military Medical System

References



- The Office of The Surgeon General, Borden Institute. Emergency War Surgery, 5th U.S. Edition, 2018. Chap 2: Roles of Medical Care, Chap 35: Battlefield Trauma Systems
<https://www.cs.amedd.army.mil/Portlet.aspx?ID=cb88853d-5b33-4b3f-968c-2cd95f7b7809>
- Joint Health Services, Joint Publication 4-02. 11 Dec 2017
https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp4_02ch1.pdf?ver=2018-10-10-113551-603
- DoD Instruction 6040.47. Joint Trauma System. 28 Sep 2016. Change 1, 05 Aug 2018. <https://jts.amedd.army.mil/assets/docs/policies/JTS-DoDI-604047.pdf>

Photos are courtesy of the JTS image library unless otherwise noted.