Washington, DC
November 14, 2011

The ACS COT Structure and Function

AMERICAN COLLEGE OF SURGEONS

Committee on Trauma

To Serve All With Skill and Fidelity

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Committee on Trauma

Vision

The COT strives to be a resource for our profession and other entities, professional, public, and governmental, in topics concerning trauma prevention and care. The COT's major areas of activity should include education, standards of care, quality of patient care, and financial assessment of care. The scope of its activities will be national and international.

Mission

The mission of the COT is to develop and implement meaningful programs for trauma care in local, regional, national, and international arenas. These meaningful programs must include education, professional development, standards of care, assessment of outcome, and financial accountability.

Objectives

Committees on Trauma 2007 Blue Book
Guide to Organization, Objectives and Activities

- Leadership in Development of Standards for Trauma Care
- Trauma Education
- Develop Measurement Tools for Trauma Hospitals and Inter-hospital Comparison
- Development of Trauma Systems
- Foster and Develop Trauma Prevention
- Develop Trauma Group Relations

Components

Basic Infrastructure

- *Leadership*
  - *Medical Director*
  - *Chair*
  - *Vice Chair*
  - *Membership*
- *Information*
  - *NTDB*
  - *NTDS*
  - *TQIP*
  - *PIPS*

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Strategic Restructuring

Three Critical Pillars for Success

The Committee on Trauma re-crafts its current operating structure to carry out the mission as outlined in the Blue Book to focus in three discreet areas, all separate and distinct yet fully interrelated.

Structure of the American College of Surgeons

Medical Director
Chair/Vice Chair
Membership

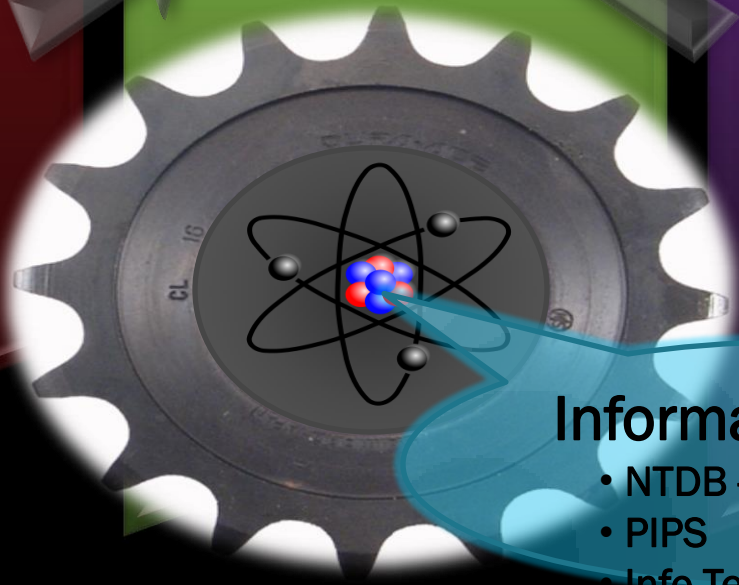
Education

- ATLS
- PHTLS
- RTTDC
- DMEP
- Surgical Skills
  - ASSET
  - ATOM
- SBI
- Optimal Center
- Congress Courses
- Scudder
- East/West/Mid

Advocacy

Quality

- Systems
- VRC
- EMS
- Rural
- Disaster
- Prevention



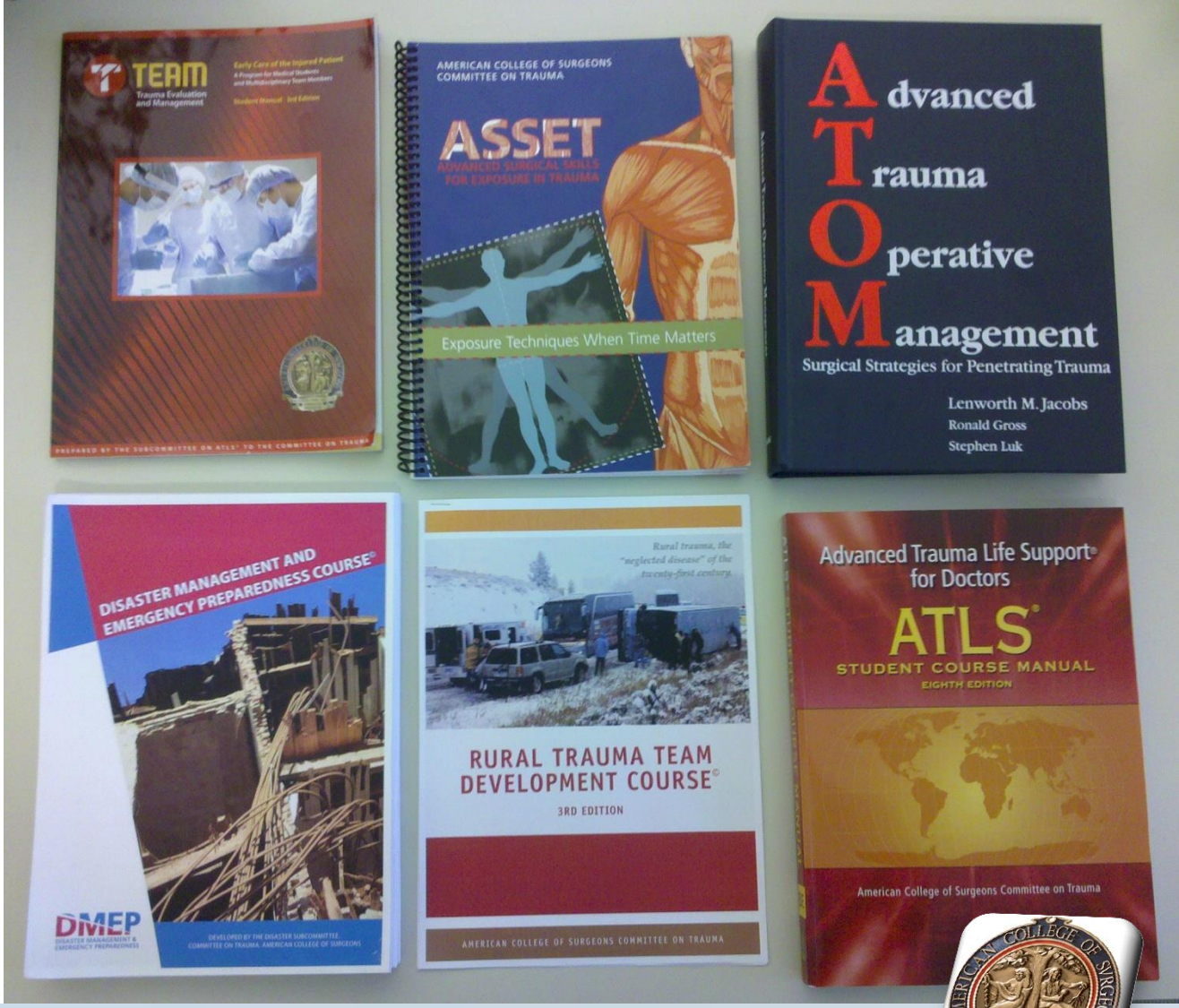
Information Engine

- NTDB - TQIP
- PIPS
- Info Tech

Tangible Work Product!

"Productivity is never an accident. It is always the result of a commitment to excellence, intelligent planning, and focused effort."

Paul J. Meyer



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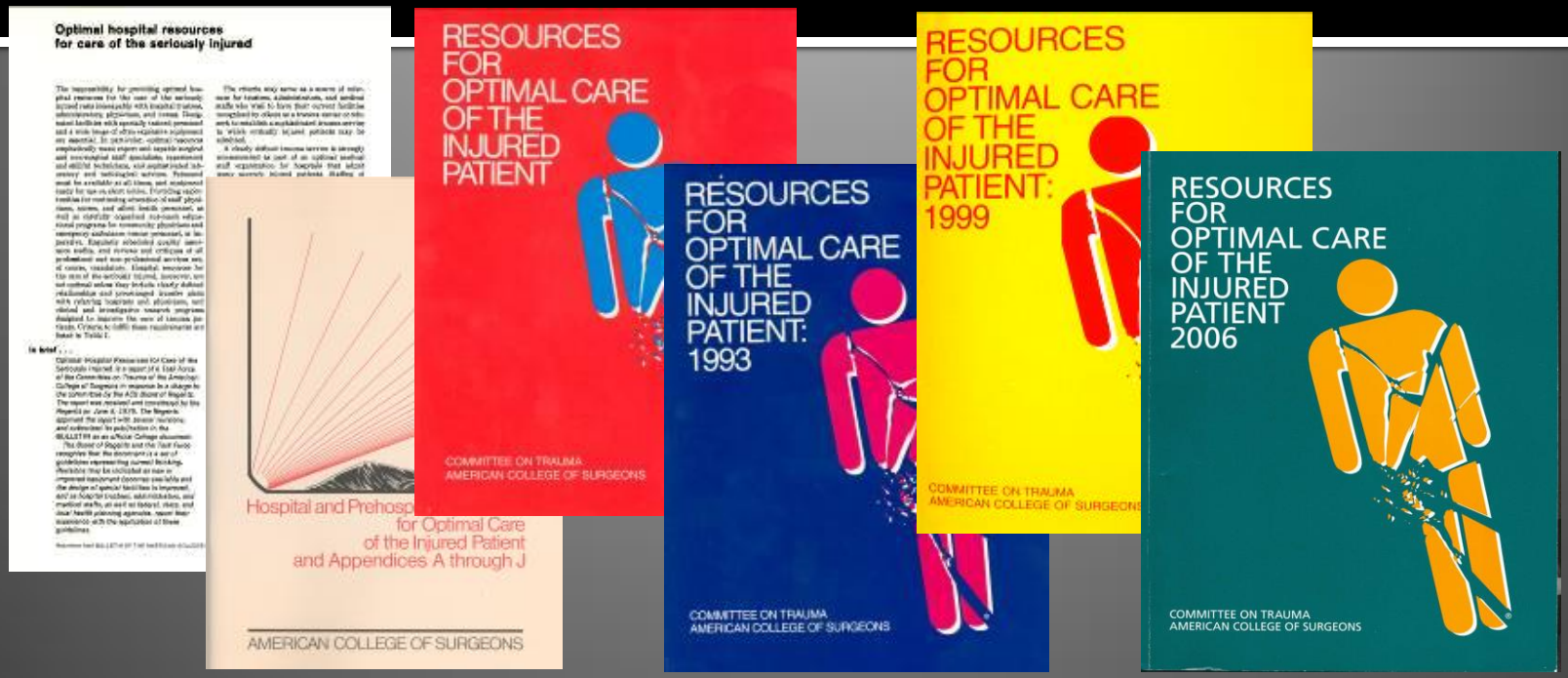
Resources for Optimal Care of the Injured Patient: 1976-2006



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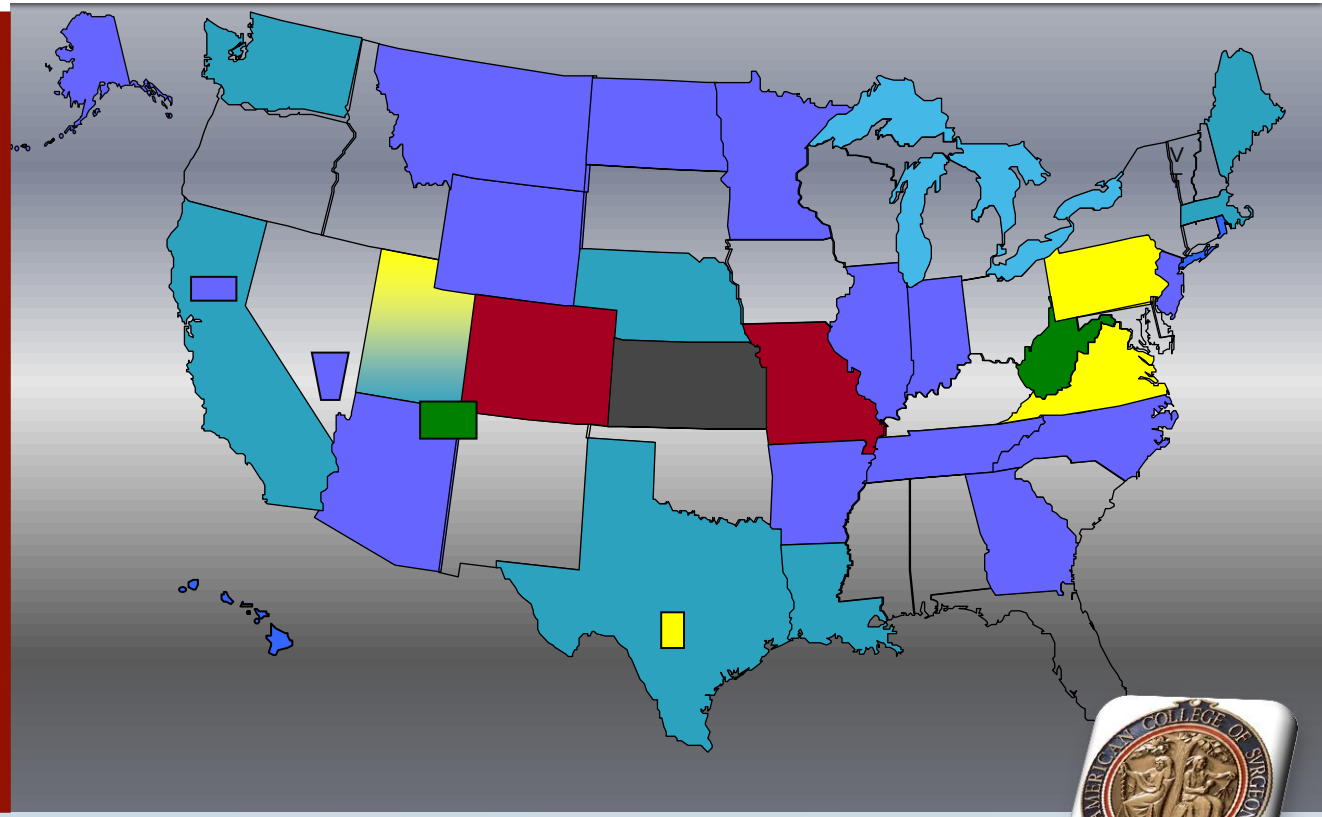
Tangible Work Product!

Trauma Systems Planning and Evaluation Consultations



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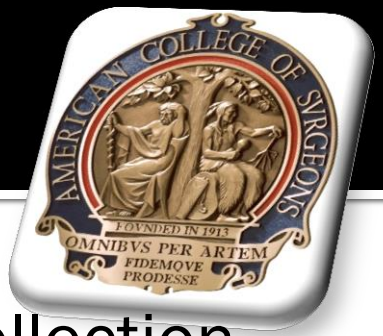
2007 Systems Guide

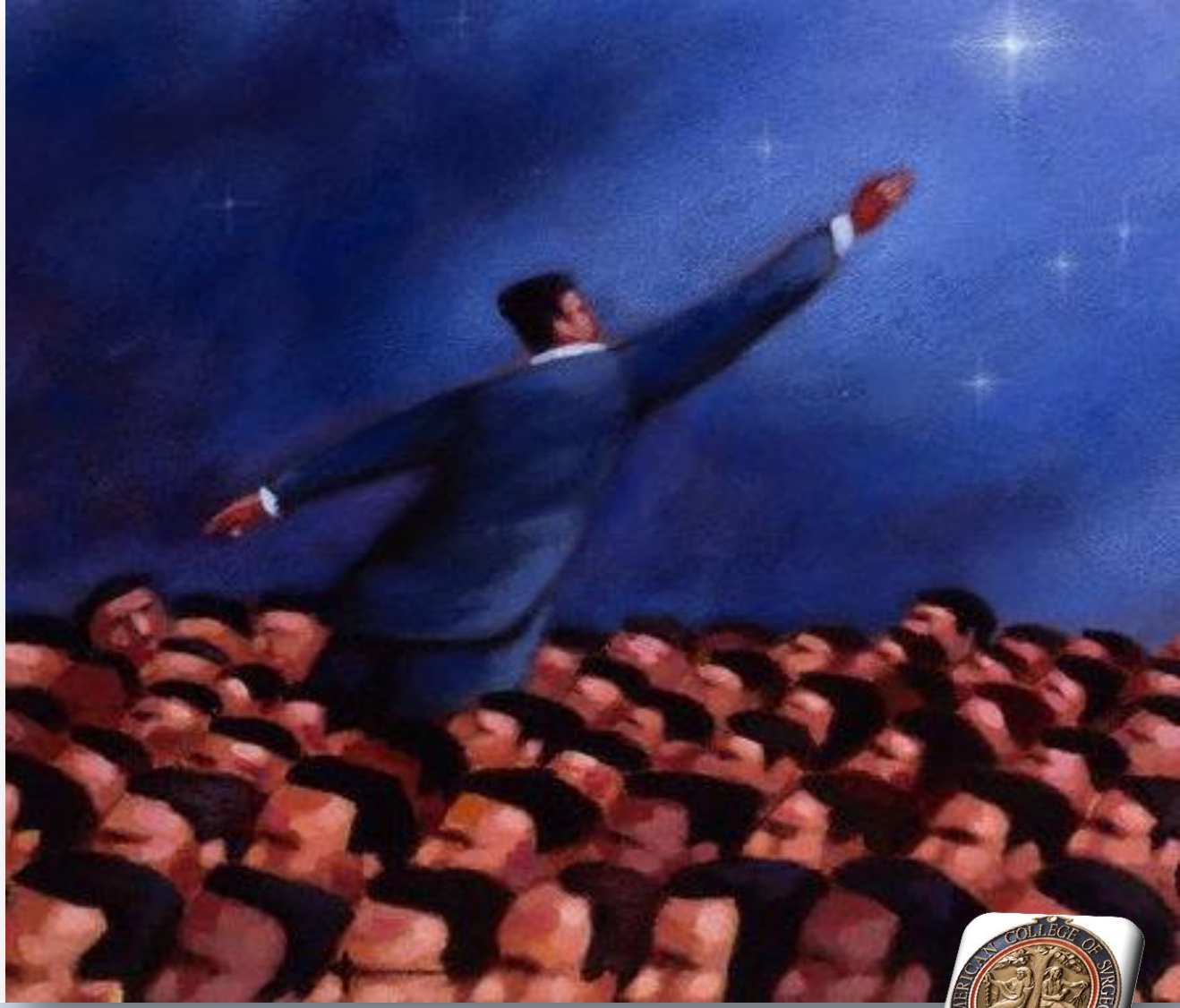


- *Assessment:* regular and systematic collection and analysis of data to determine status and need for intervention
- *Policy Development:* establish comprehensive policies to improve health
- *Assurance:* goals to improve the public's health by providing regulated services

Leadership

"The best executive is the one who has sense enough to pick good people to do what needs to be done, and self-restraint to keep from meddling with them while they do it."

Theodore Roosevelt



Purple Heart

The United States Military Joint Trauma System Assessment: A Presentation to the Defense Health Board

Washington, DC
14 November 2011

Michael Rotondo, MD, FACS
Chairman, American College of Surgeons Committee on Trauma

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Committee on Trauma

The United States Military Joint Trauma System Assessment

A Report Commissioned by the US Central Command Surgeon

Sponsored by Air Force Central Command Surgeon

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Vision

That every soldier, marine, sailor, or airman injured on *ANY* battlefield or in *ANY* theater of operations has the optimal chance for survival and maximal potential for functional recovery.

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Continuum of Care: 2011

BAS

Role 1

POI

1 Hour

Forward Surgical Teams

Role 2

TACTICAL MEDEVAC

1-24 Hours

CSH, EMEDS, EMF

Role 3

STRATEGIC AE

24-72 Hours

Definitive Care

Level 4

72 Hours Plus

Full Range

Level 5

Post Acute Care

VA

Chain of Survival and Recovery

Construct

- Team of trauma system experts visited theater to conduct trauma system review and participate in Theater Trauma Conference
- US CENTCOM SG invitation; US AFCENT SG, US TRANSCOM SG, USAISR JTS, JTTS, and TF MED Support
- Visit Role II/III MTFs and evacuation units 2 – 12 October 2011
- Provide report of findings and recommendations to US CENTCOM SG

Military Trauma Systems Review Team

- **Michael Rotondo, MD, FACS**, Professor and Chair, Department of Surgery, The Brody School of Medicine, East Carolina University and Director, Center of Excellence for Trauma and Surgical Critical Care, Chairman, American College of Surgeons, Committee on Trauma
- **Thomas Scalea, MD, FACS**, Francis X. Kelley, Professor of Trauma, University of Maryland School of Medicine, and Physician and Chief, R. Adams Cowley Shock Trauma Center, Baltimore, MD.
- **Lt Col Anne Rizzo, MD, FACS**, USAFR, Associate Professor of Surgery, Virginia Commonwealth University, Vice Chair, Department of Surgery and Associate Surgical Residency Program Director; Associate Professor of Surgery, Uniformed Services University of the Health Sciences.
- **Kathleen Martin, MSN, RN**, Trauma Nurse Director, Landstuhl Regional Medical Center, Germany and is the Society of Trauma Nurses' Board of Directors' Chair of the Trauma Outcomes and Performance Improvement Committee.
- **Col Jeffrey Bailey, MD, FACS**, Director-Designate, Joint Trauma System, US Army Institute of Surgical Research (USAISR)

Military Trauma Systems Review Team

The Report to US CENTCOM SG

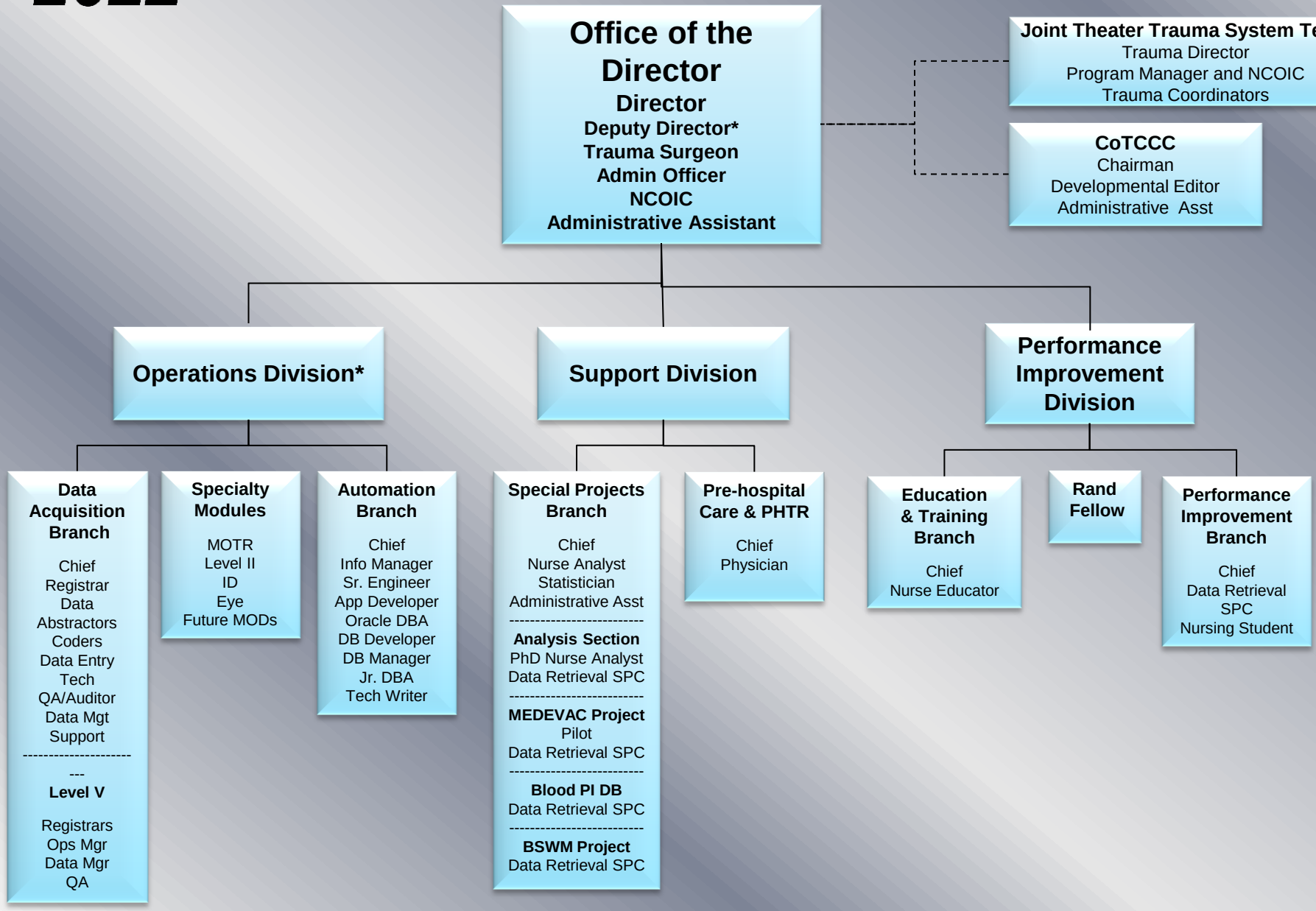
A strategic report to provide a platform for tactical development for the future direction of the Joint Trauma System (JTS), the US CENTCOM and future Joint Theater Trauma Systems (JTTS), including:

- Optimal elements
- Integration
- Sustainment

Background

- US CENTCOM “JTTS” implemented to structure trauma care in theater
- Initial efforts focused on theater ops: expanded to include CONUS care
- Continuity and guidance for JTTS at USAISR
- USAISR organization designated “JTS” to distinguish its global mission

USAISR Joint Trauma System Directorate: 2011

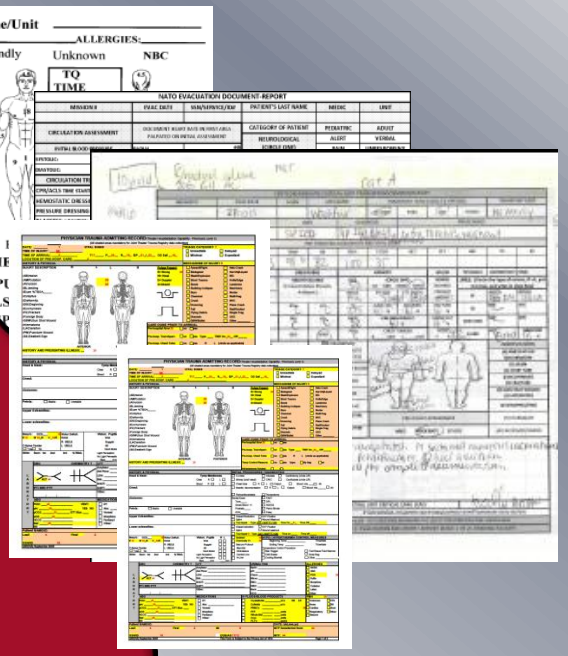


JTS and JTTS

Director's Report

Clinical Practice Guidelines

Special Reports

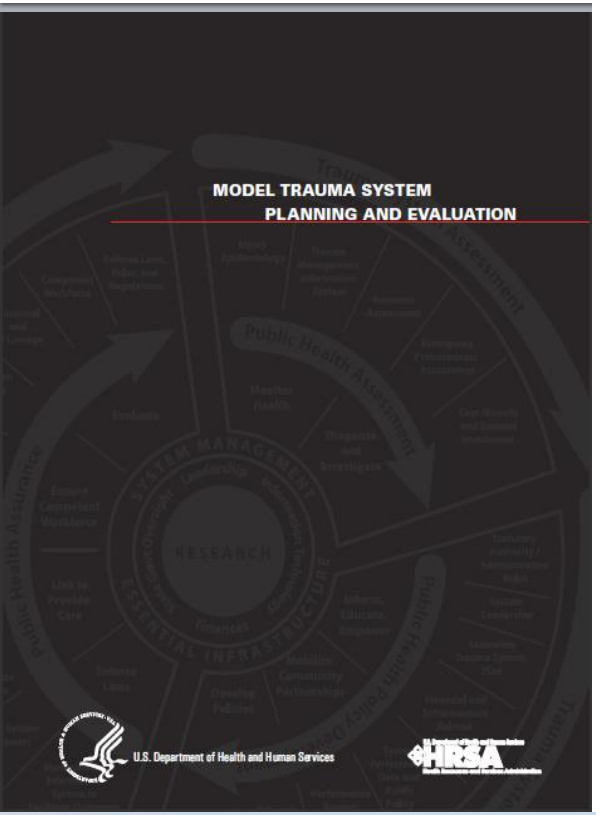


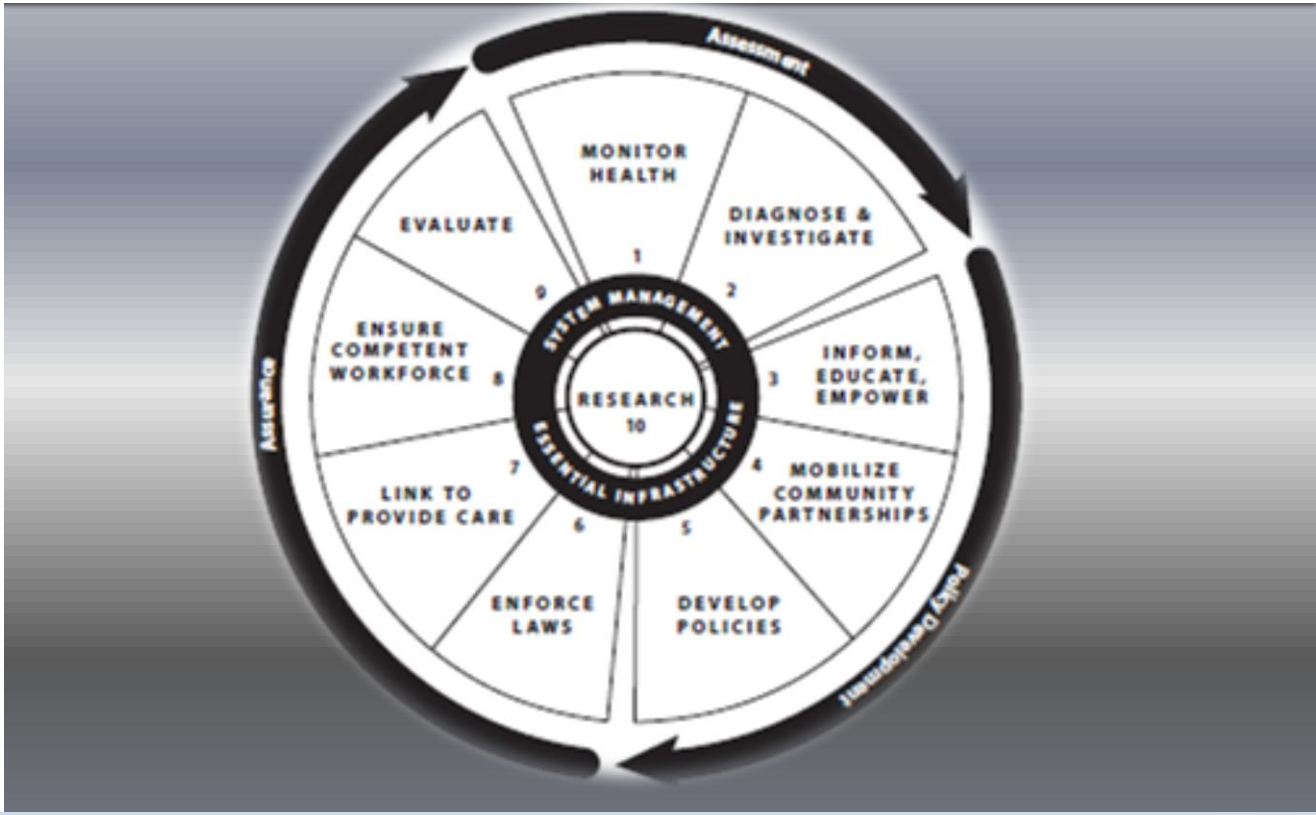
Right Patient
Right Time
Right Place
Right Care

Overarching Principles: Systems Theory

- Elemental components *as well as* the interacti
  those components as it relates to primary system function.
- Even if the elements function effectively, it does NOT necessarily mean that the system is functioning optimally.
- The system can only function optimally if individual elements are linked through infrastructure that demonstrates effective relational function among elements.

Overarching Principles:
Systems Theory *Assessment – Policy Development – Assurance*





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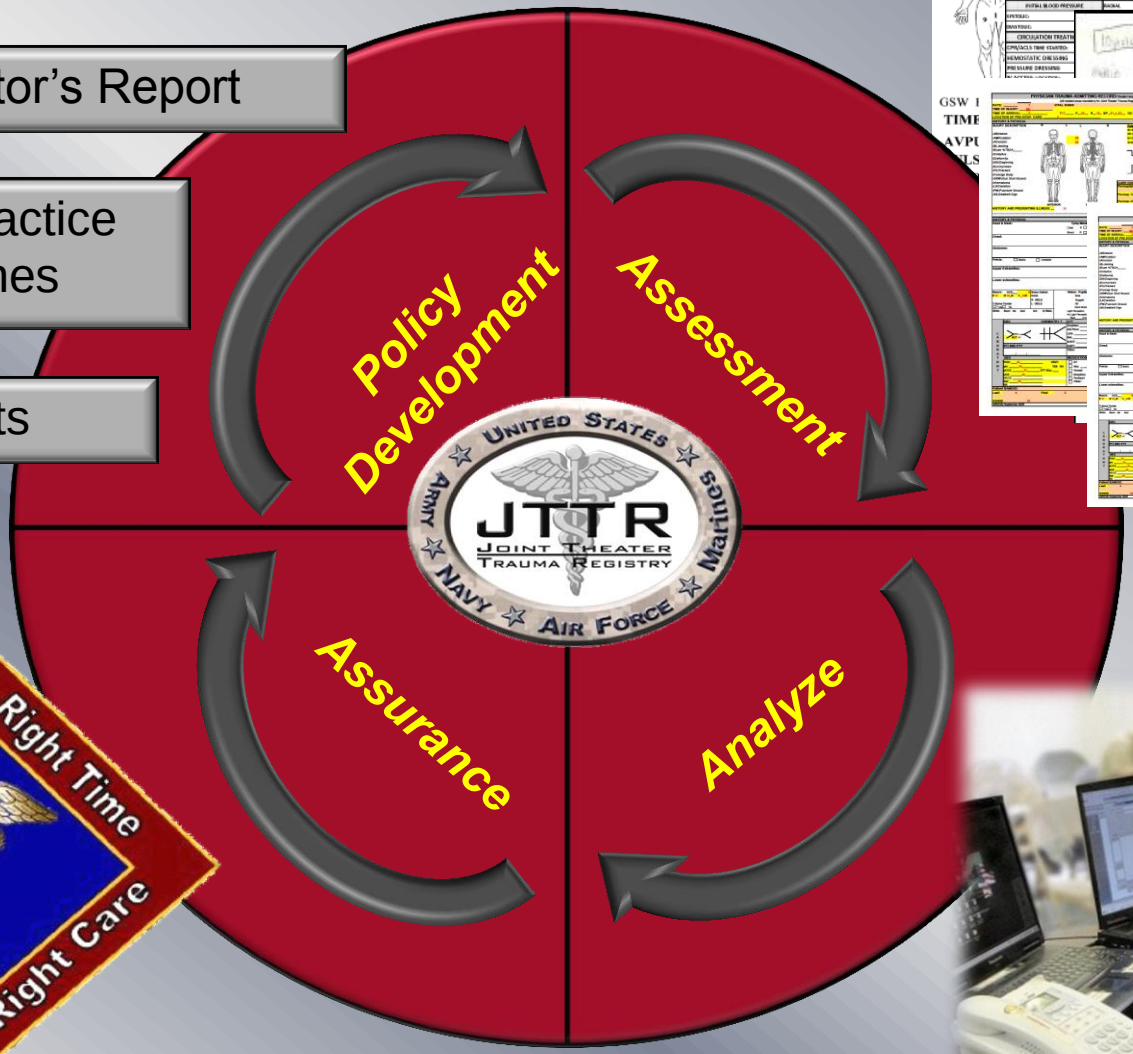
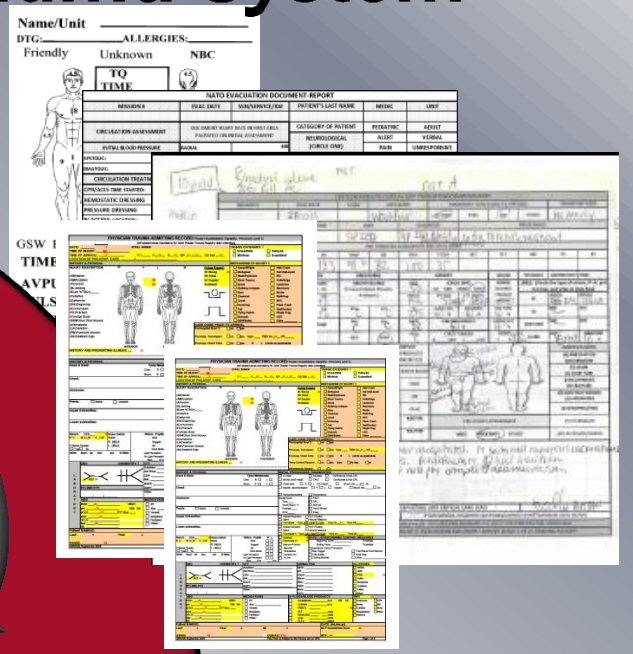
JTS and JTTS and the Model Trauma System

Director's Report

Clinical Practice Guidelines

Special Reports





Itinerary

29 Sep LRMC
2 Oct Ramstein
3 Oct Bagram
5 Oct Bastion
7 Oct Tarin Kowt
7 Oct Kandahar
8 Oct Trauma Conf
9 Oct Trauma Conf
10 Oct Bagram
12 Oct Ramstein
14 Oct CONUS

Units Visited/Activities

Bagram Air Field
Craig JTH
JTTS
TF 44 MED A

Tarin Kowt
Forward Surgical Element
Role II

Camp Leatherneck
RC SW Surgeon

Kandahar Air Field
Role III
Trauma Conference

Camp Bastion
Role III
CASF
MERT
Pedro
C-130 Fever

Clinical Excellence

Obvious at the Elemental/Component Level

- Committed leadership
- Committed clinicians
- Teamwork

- *Damage Control Approach*
- *CABC*
- *MDR Microbes*

NOT Obvious at the System Level

- Fully integrated infrastructure
- Lead agency to knit the components together

Priority

The war fighters control the battle space and require ultimate flexibility to achieve their objectives.

Wounded warriors must receive the responsive, nimble state of the art care regardless of distance, geography, weather or tactical situation.

These are not mutually exclusive…both require resources.

Critical Observations and Recommendations

- JTS Authority
- Communication and Cohesion
- Informatics
- Performance Improvement
- Clinical Investigation
- Training

JTS Authority

Observations:

- JTS has no authority to develop or set policy or standards for trauma care
- No authority to implement a verification process for facilities or the system
- Does not function as DoD level asset

JTS Authority

Recommendations:

- Establish JTS as the statutory lead agency and DOD authority to set policy and enforce standards of excellence in the care of the injured.
- DOD delegated authority to recommend external system review
- JTS should be elevated within the DOD in order to align its position with its joint and global responsibilities

Communication and Cohesion

Observations:

- Clinical personnel spend large volumes of time performing clerical tasks reducing efficiency, delaying transfer and creating frustration
- Transmission of important clinical information like radiographs is difficult
- Clinicians encounter resistance when attempting to transfer patients

Communication and Cohesion

Recommendations:

- Clinical information sharing between colleagues and the every other weekly trauma directors' conference should be consolidated/enhanced
- Trauma conferences such as those held recently at Kandahar is one such example that significantly enhanced system cohesion; should be replicated
- VTC should be focused on providing patient outcomes to all providers as a potent communication forum

Informatics

Observations:

- There is no unified, contiguous electronic health record across the military continuum of care
- Limited capability for consistent collection of data on all injured war fighters across the continuum
- Capabilities for performance improvement across the system are primitive at best

Informatics

Recommendations:

- Develop an expeditionary EMR that is facile, readily taught, increases productivity, and is secure, web based/instantly visible from all levels
- Resource to allow concurrent data collection across full continuum
- Enhance JTTR capability for real time PI

Performance Improvement

Observations:

- The trauma performance improvement and patient safety process is fragmented
- Efforts to implement rudimentary trauma related PI were present at each military trauma facility
- Varied evidence of effective communication of PI events or trends across the system
- No clear metric to link performance for the optimal outcomes

Performance Improvement

Recommendations:

- The JTS must develop an overarching PI and Patient Safety Plan
- System wide process for event identification, development of corrective action plans, methods of monitoring, reevaluation and bench-marking
- Enhance accountability for performance related to care of injured

Clinical Investigation

Observations:

- The interface between PI and research is indistinct
- The protocol execution process is lengthy
- The investigation proposal process is poorly understood
- There are multiple DB, not all communicate
- The JTS does not have executive oversight of trauma related clinical investigation
- There is little or no relationship between the JTS, JTTS and the IRB process

Clinical Investigation

Recommendations:

- The PI and research missions and proposal process must be reconciled to allow for unencumbered investigation
- The IRB process should be significantly streamlined
- All requests for clinically important data should be coordinated with JTS Director who should be charged with oversight of DoD trauma related clinical investigation

Pre-Deployment Training

Observations:

- There is no consistent pre-deployment training for medical personnel
- Current training is largely focused on combat skills
- Tactical “matching” of clinical expertise with deployed assignment could be improved
- Trauma training that exists focuses on individual, as opposed to team training
- The JTS has no authority to specify pre-deployment trauma training requirements

Pre-Deployment Training

Recommendations:

- Improve balance of combat skills and trauma training
- Align specialty and skill with deployed responsibility
- Establish consistent pre-deployment training to include leadership and clinical personnel
- Scale training to combat casualty care and system experience, knowledge, and skill
- Trauma directors at every Role 3 facility should have leadership and combat surgery experience
- The JTS should have oversight on standards of pre-deployment trauma training

Team Transition Training

Observations:

- Each theater of operation has a unique role, terrain limitations and institution specific practices
- Effective team transition is not always possible due to logistics

Team Transition Training

Recommendations:

- Units should consistently develop a manual or equivalent repository of updated institution specific information
- Hand off between providers should be assured with sufficient time for effective team transition

Conclusions

- Seek support of the leadership of the uniformed services, and civilian leadership in the DoD, for fundamental change in the command structure to enable the JTS as the lead agency for assessment – policy development – assurance

- The way ahead…
  - Obtain leadership ***commitment***
  - ***Transform*** the Joint Trauma System
  - ***Sustain*** the JTS beyond transformation

Obtain Commitment in Key Domains

- System Support
- Sustainment JTS
- Team Dynamics Level 1-V

Leadership and Communication

Education and Training

- Trauma Specific Education
- Pre-deployment Training

Performance Improvement Patient Safety

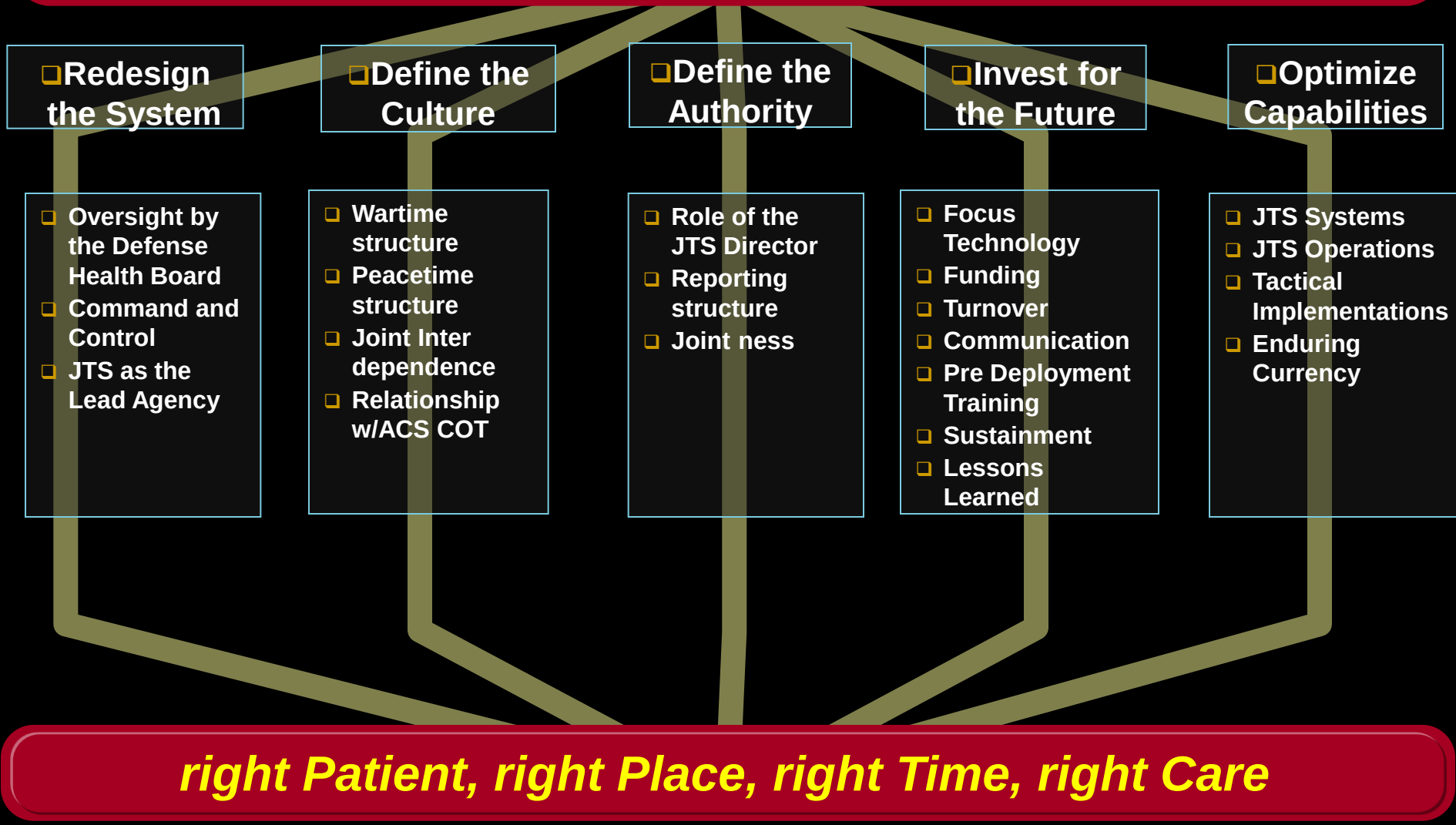
- Data driven (JTTR)
- Outcome driven

Clinical Excellence and Investigation

- Evidence Based Practice
- Decrease Variation
- Clinical Practice Guidelines

Transform the US Joint Trauma System

A Joint Trauma Performance Enhancement and Clinical Excellence Campaign



right Patient, right Place, right Time, right Care

Why should the JTS Lead?

Military medical commanders at all levels, from Level II to Level V facilities are excellent leaders and have facilitated some of the JTTS work. Those commanders come from a great variety of backgrounds and are called upon to serve at these levels due to their leadership skills. While their focus is on achieving the mission to field the best possible health care center, their leadership training paradigm is appropriately focused on the essentials of personnel, logistics, execution, order and discipline. JTS excels at the current state of trauma affairs, has the corporate memory of all the health care teams that have deployed and re-deployed, the most current and the comparative historical data trends and all versions of the Clinical Practice Guidelines.

The Next Steps

- Complete the document entitled: ***"Joint Trauma System: Development, Conceptual Framework, and Optimal Elements";*** publish as ACS manual
- Create a ***JTTS Operations "Field Manual":*** describe structure, function and tactical deployment of JTTS
- Create a ***Tactical Implementation Plan*** to achieve the strategic goals with milestones for the immediate (6 months), intermediate (18 months) and long term (36 months); *expectation that this plan will be completed by the end of three years*

Recognition and Thanks

- US Central Command Surgeon
- Air Force Central Command Surgeon
- US Transportation Command Surgeon
- Air Mobility Command Surgeon
- Office of the USAF Surgeon General
- Office of the Joint Surgeon
- USAISR Joint Trauma System
- US Central Command Joint Theater Trauma System
- Command and Trauma Team Landstuhl Regional MC
- Task Force 44 MED – A
- US Army Institute of Surgical Research (USAISR)
- Command and staff Craig Joint Theater Hospital
- Bastion Role III and CASF
- RC SW Command Surgeon
- UK MERT
- USAF Pararescue
- “Fever” Ops
- “Weasel” Ops
- TF Thunder
- Tarin Kowt FSE and Role II
- Kandahar Role III