To Serve All With Skill and Fidelity

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

- 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

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

**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

Medical Director
Chair/Vice Chair
Membership
“Productivity is never an accident. It is always the result of a commitment to excellence, intelligent planning, and focused effort.”

Paul J. Meyer
Tangible Work Product!

*Trauma Systems Planning and Evaluation Consultations*
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
“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
The United States Military Joint Trauma System Assessment

A Report Commissioned by the US Central Command Surgeon

Sponsored by Air Force Central Command Surgeon

Committee on Trauma
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.
Continuum of Care: 2011

Chain of Survival and Recovery

Role 1
BAS
1 Hour

Role 2
Forward Surgical Teams
1-24 Hours

Role 3
POI
24-72 Hours

TACTICAL MEDEVAC
72 Hours Plus

STRATEGIC AE
Full Range

Definitive Care
Level 4

Post Acute Care
Level 5

VA

C SH, EMEDS, EMF

Level 5

Definitive Care

Full Range

Post Acute Care

Level 4

Definitive Care

Full Range
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
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
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
JTS and JTTS

Director’s Report
Clinical Practice Guidelines
Special Reports
Overarching Principles: Systems Theory

- Elemental components *as well as* the interaction of 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
JTS and JTTS and the Model Trauma System
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

- Committed leadership
- Committed clinicians
- Teamwork

**Obvious at the Elemental/Component Level**

- Damage Control Approach
- CABC
- MDR Microbes

**NOT Obvious at the System Level**

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

- Leadership and Communication
  - System Support
  - Sustainment JTS
  - Team Dynamics Level 1-V

- Education and Training
  - Trauma Specific Education
  - Pre-deployment Training

- Performance Improvement
  - Data driven (JTTR)
  - Outcome driven

- Clinical Excellence and Investigation
  - Evidence Based Practice
  - Decrease Variation
  - Clinical Practice Guidelines

- Patient Safety
Transform the US Joint Trauma System

A Joint Trauma Performance Enhancement and Clinical Excellence Campaign

- Redesign the System
- Define the Culture
- Define the Authority
- Invest for the Future
- Optimize Capabilities

- Oversight by the Defense Health Board
- Command and Control
- JTS as the Lead Agency
- Wartime structure
- Peacetime structure
- Joint Interdependence
- Relationship w/ACS COT
- Role of the JTS Director
- Reporting structure
- Jointness
- Focus Technology
- Funding
- Turnover
- Communication
- Pre Deployment Training
- Sustainment
- Lessons Learned
- JTS Systems
- JTS Operations
- Tactical Implementations
- Enduring Currency

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


- 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