



Joint Theater Trauma System (JTTS) Joint Theater Trauma Registry (JTTR)

Information Brief to DHB

14 July 2010

Col George Costanzo
Ms Mary Ann Spott

U.S. Army Institute of Surgical Research (USAISR)
3400 Rawley E. Chambers Ave, Bldg 3611
Ft Sam Houston, TX 78234



Objectives

- Describe the Joint Theater Trauma System (JTTS)
- Describe the Joint Theater Trauma Registry (JTTR)
- Present recommendations to the DHB establishing the Joint Theater Trauma System as a Program of Record with POM funding



What is a Trauma System?

- Organized effort in a geographic region to deliver full range of trauma care
- Improves patient transition between phases of care
- System coordination improves patient outcomes
 - Reduces mortality by 15 - 20%





Why is JTTS Important to the Service Member?

- Trauma volume / rate
 - US Level I trauma center
 - 5,000 evaluations ~ 2,000,000 population
- Historically:
 - CENTCOM JTTS Centers
 - 8,000 evaluations ~ 200,000 population



History of the JTTS

- OTSG-directed theater evaluation visits (May 03)
- 2nd MED BDE directed to develop JTTS in Iraq (Mar 04)
- Service SGs coordinated with Health Affairs on (JTTR) and JTTS (Nov 04)
- OSD/HA directed services to implement JTTR (Dec 04)
- 44th MEDCOM CG to implement JTTS in Iraq (Dec 04)
- CENTCOM established JTTS for entire AOR (Mar 05)



JTTS Vision

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



JTTS Mission

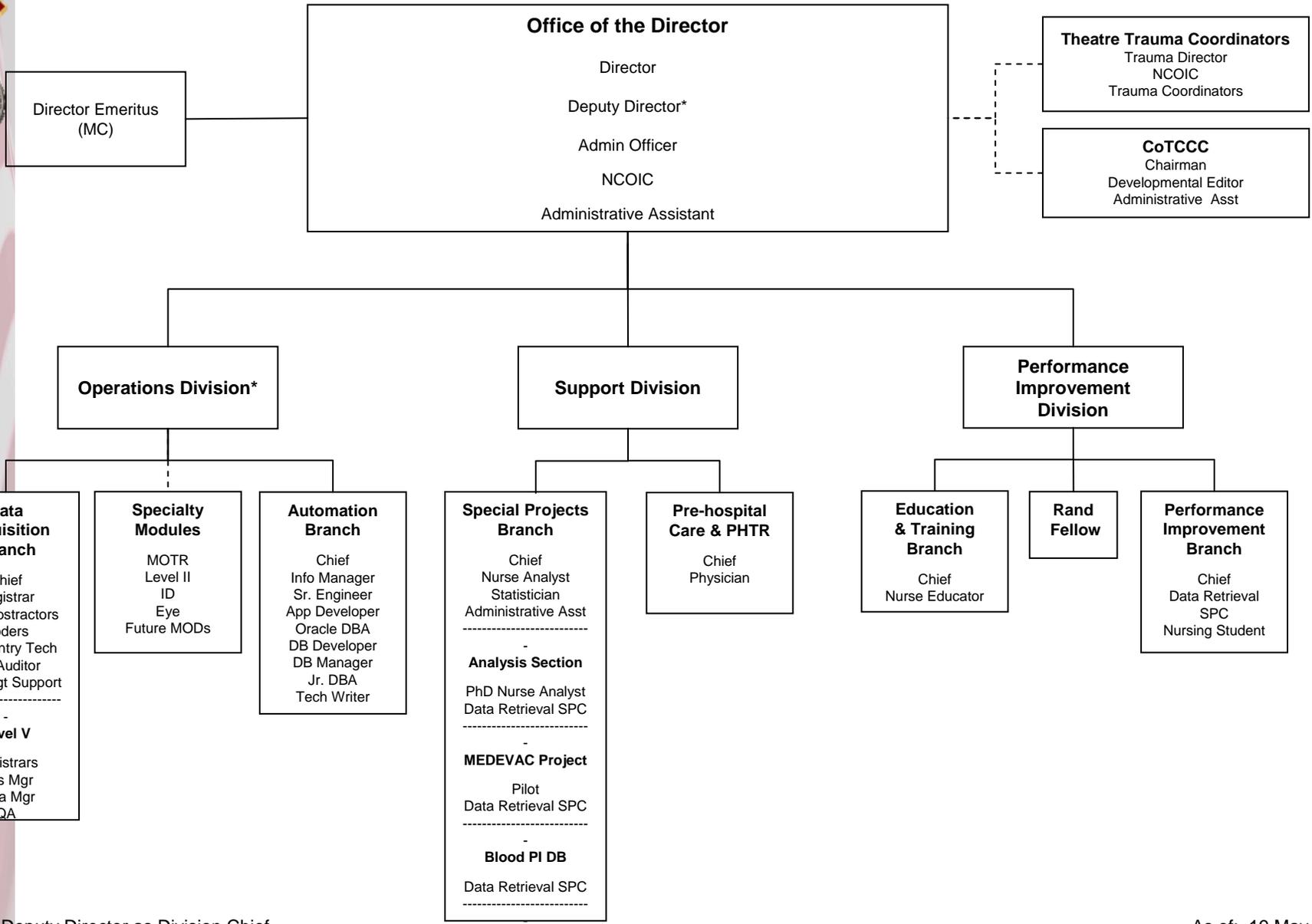
- Improve organization and delivery of trauma care
- Facilitate Morbidity and Mortality conferences to promote real-time, data-driven **clinical process improvements** and improved outcomes
- Develop and implement **clinical practice guidelines**; monitor compliance with them



JTTS Mission

- Improve **communication** among clinicians in the evacuation chain to ensure continuity of care and access to data
- Evaluate and **recommend new equipment** or medical supplies for use in theater to improve efficiency, reduce cost, improve outcomes
- **Populate the JTTR** to evaluate care provided, document outcomes, and facilitate conduct of formal research

Joint Theater Trauma System Directorate

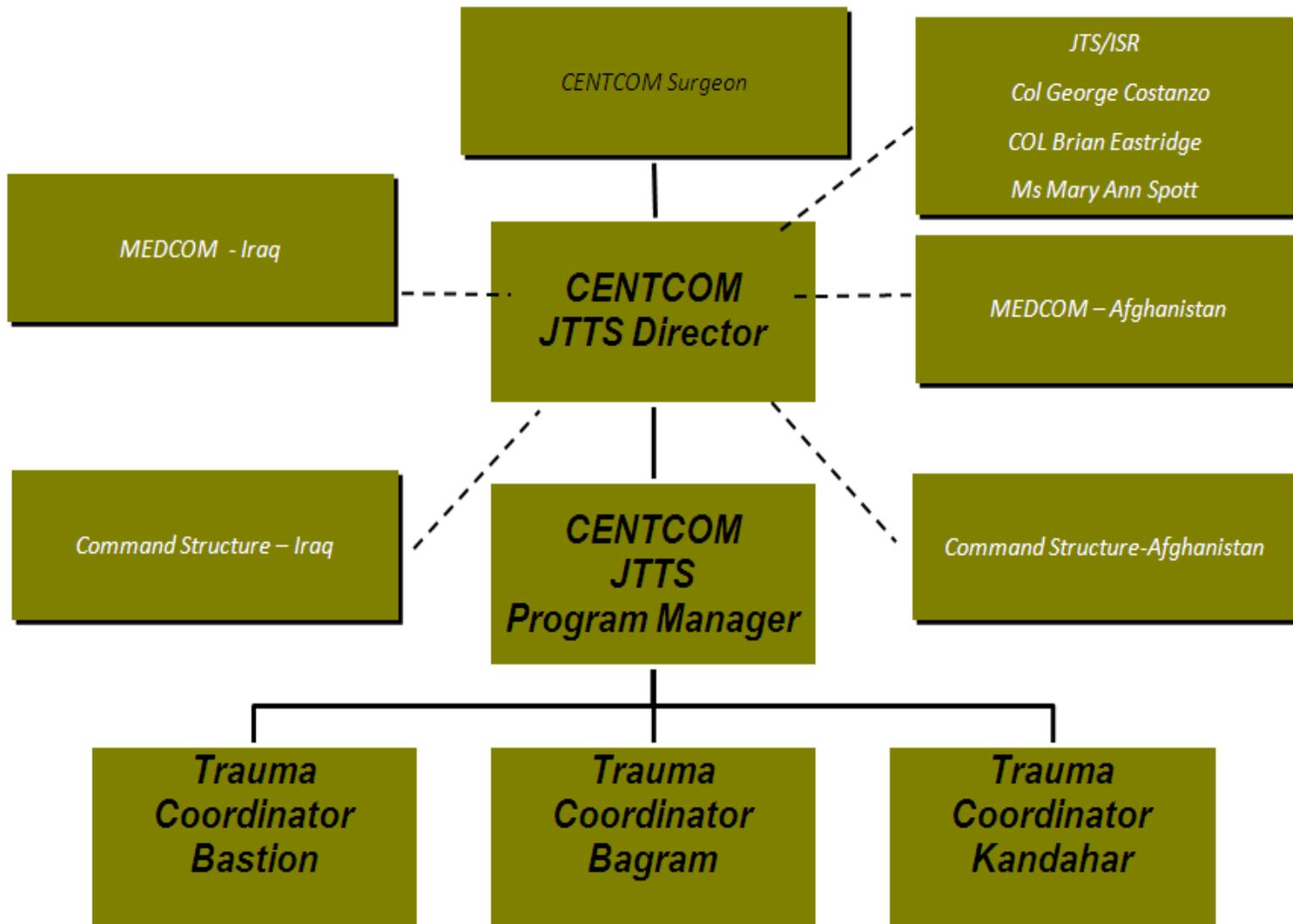


* Indicates Deputy Director as Division Chief

BSWM Project



CENTCOM JTTS Organizational Diagram





JTTS Theater Manning

- In Theater JTTS is supported by all Services:
 - 1 Theater Trauma Medical Director
 - 1 Theater Trauma Nurse Manager
 - 5 Theater Trauma Nurse Coordinator/Registrars (TNC)
 - 1 NCOIC
 - ***New CENTCOM JMD: 9 US TNCs & 5 NCOs***

One/Two NATO trauma nurse coordinators are trained for JTTS/JTTR support: current representative is from Canada. Data are not entered by physicians; there is no duplicate data entry into the medical record

Bagram



LTC Martin Schreiber
JTTS In Theater Trauma Medical Director
Bagram DSN 318-431-4441
martin.schreiber@us.army.mil



LTC Stephanie Ball
TNC Program Manager
Bagram DSN 318-431-4441
stephanie.a.ball@afghan.swa.army.mil



Capt Lisa Compton
TNC Deputy Program Manager
Bagram DSN 318-431-4441
lisa.compton@afghan.swa.army.mil



MEDEVAC



Capt Mark Haydell
TNC Bagram
DSN 318-431-3205
mark.hydell@afghan.swa.army.mil



SSgt Alejandro Hernandez
NCOIC
Bagram DSN 318-431-4430
alejandro.hernandez@afghan.swa.afmy.mil



Maj Marsha Starks
MEDEVAC Nurse
Bagram DSN 318-431-4430
Marsha.starks@afghan.swa.army.mil



MSgt Frederick Rojas
MEDEVAC NCO
DSN 318-431-4430
frederick.c.rojas@afghan.swa.army.mil

Bastion



LCDR Paul Villaire
TNC Bastion
DSN 318-357-6099
Paul.villaire@afg.usmc.mil



LTC David Rinaldi
TNC Bastion
DSN 318-841-6313
David.rinaldi@afg.usmc.mil



TSgt Restie Mangiliman
TNC Bastion
DSN 318-841-6313
restie.mangiliman@afg.usmc.mil



Kandahar



Maj Randy Snoots
TNC Kandahar - DSN 318-841-3701
randal.snoots@afghan.swa.army.mil



Lt Cmdr Catherine Campbell
TNC-Kandahar, Afghanistan
Cathy.campbell@afghan.swa.army.mil



Lt Monika Stodulska
TNC-Kandahar Afghanistan
monika.stodulska@us.army.mil



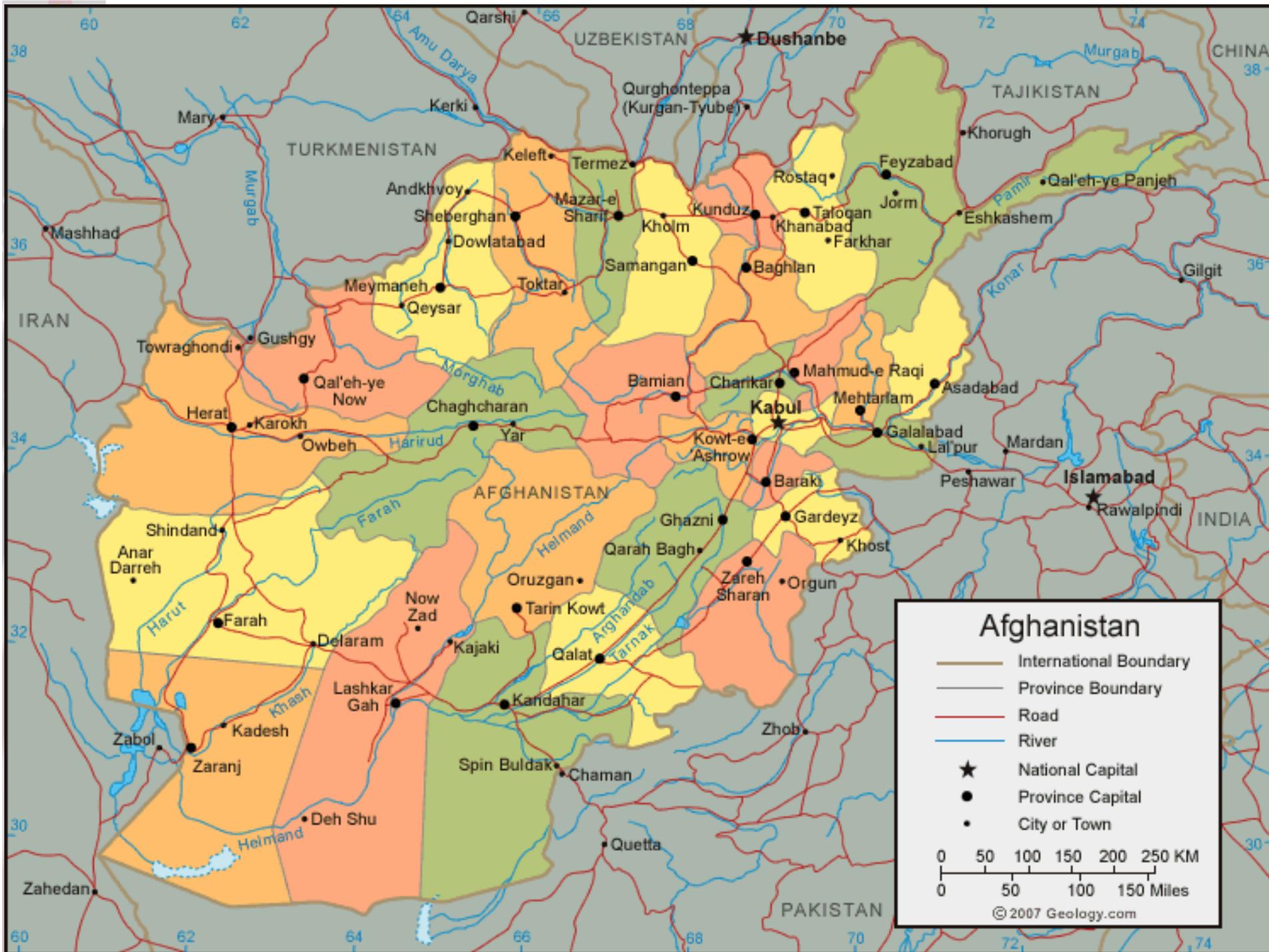
CMDR Patricia Hasen
TNC Dwyer
DSN 318-431-3205
patricia.c.hasen@afghan.swa.army.mil



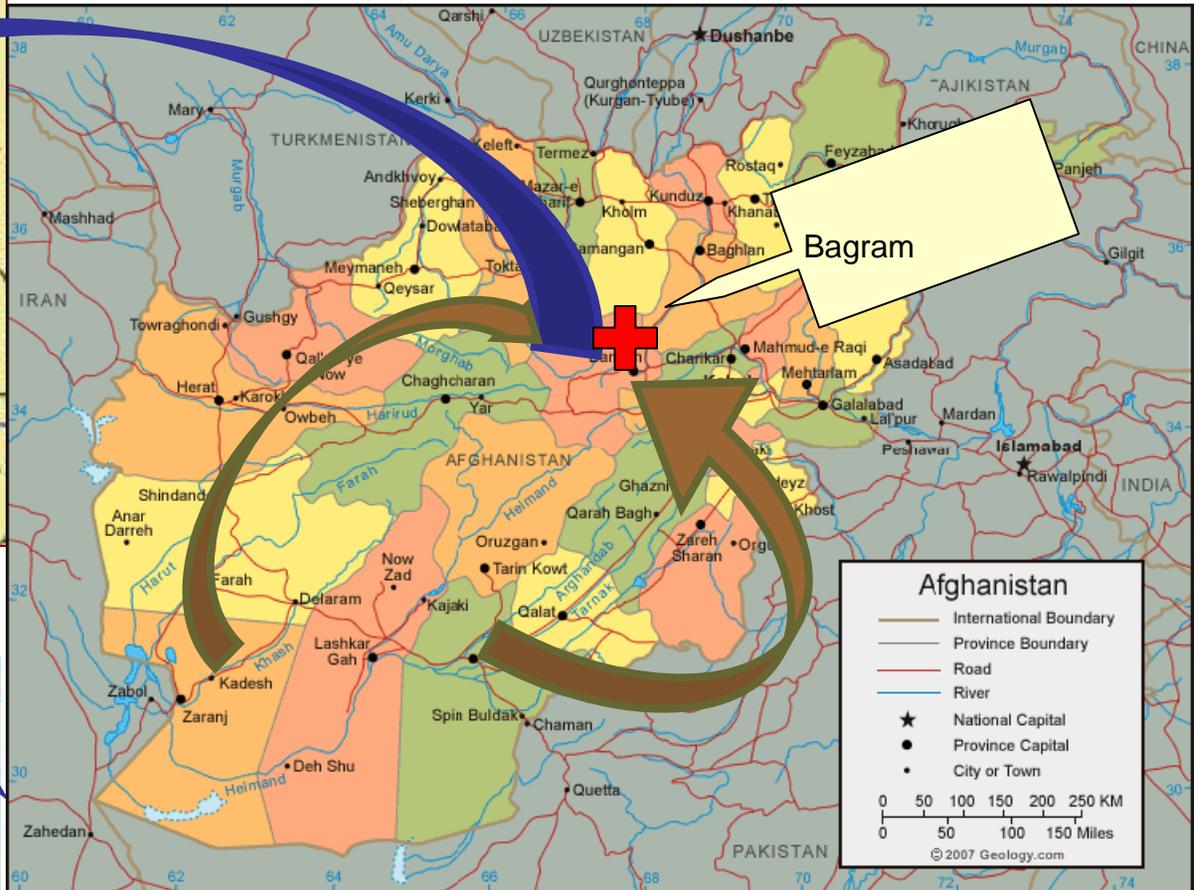
A1C Tania Dimas
Admin Tech Balad
DSN 318-443-2919
Tania.Dimas@blab.afcent.af.mil

Dwyer Balad





Enroute Patient Movement

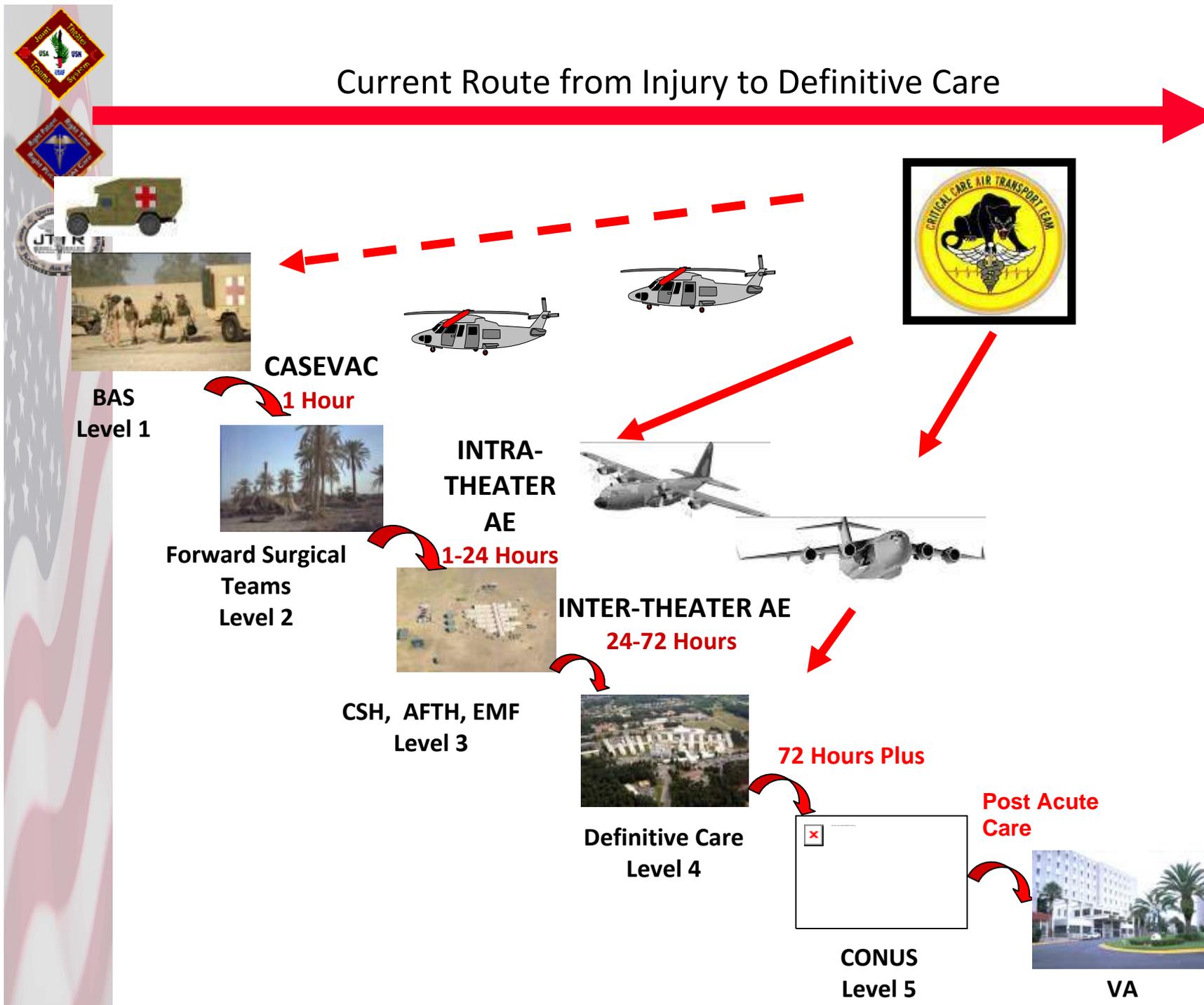




Enroute Patient Movement

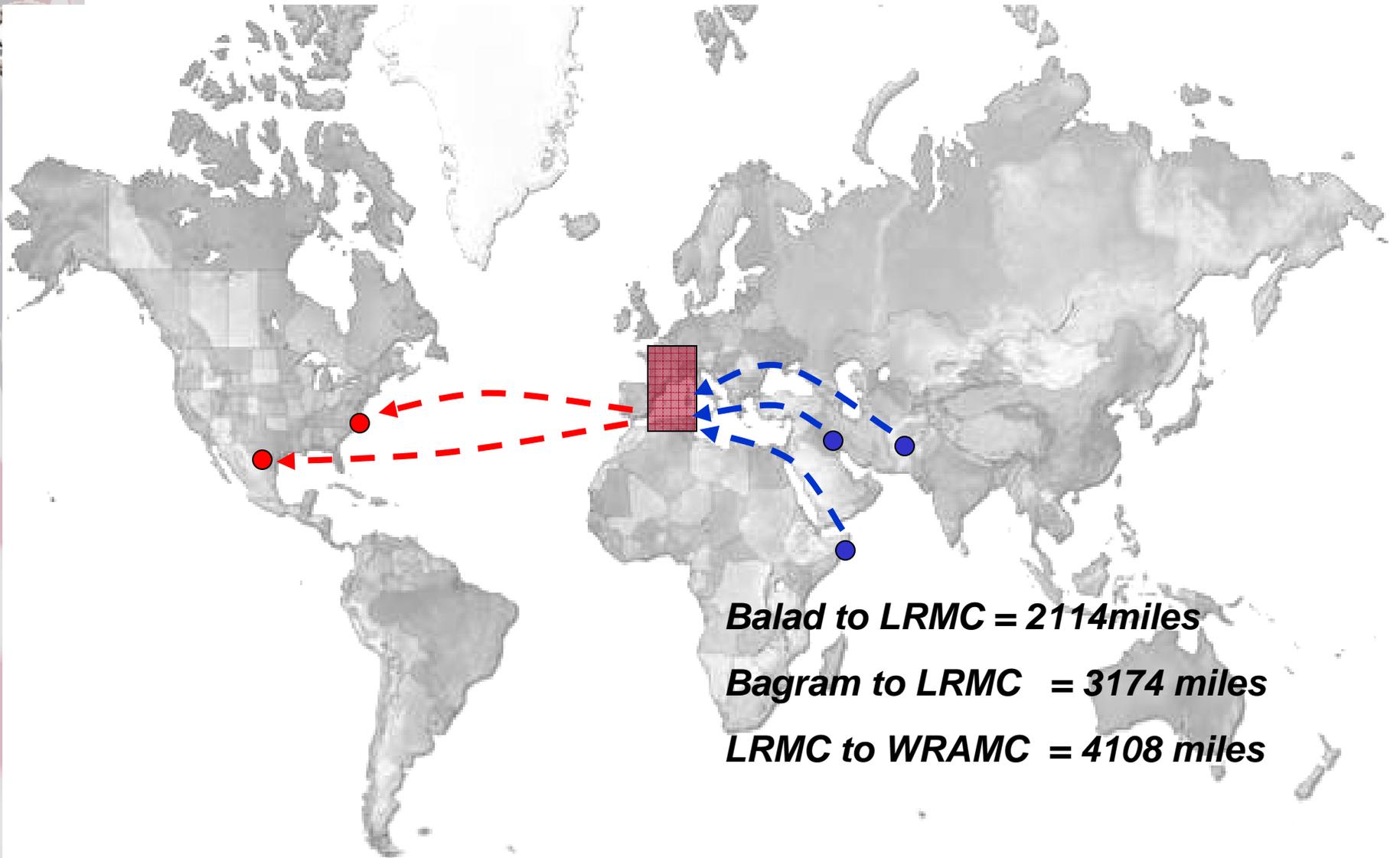


Current Route from Injury to Definitive Care





International Model



Balad to LRM = 2114miles

Bagram to LRM = 3174 miles

LRM to WRM = 4108 miles



JTTS/JTTR Relationship

- The **JTTS** is an organized approach to providing improved trauma care across all Levels of Care to trauma patients
 - Battle Injuries and Non Battle Injuries
- **JTTR** is the backbone of the system
 - Data repository collecting and hosting DoD trauma related data
 - Admissions and deaths
 - Is an integral and integrated part of the System



JTTS Components

R4 - "Right Patient, Right Place, Right Time, Right Care"

Components Across the Continuum of Care

Performance Improvement

- ❖ Patient Safety
- ❖ Feedback Mechanism for Providers Throughout Continuum of Care
- ❖ Loop Closure

Leadership & Communication

- ❖ Trauma Director / Coordinators / Registrars
- ❖ Intra-Theater
- ❖ Inter-Theater
- ❖ Recognized Lead Agent and Consulting Assets

Integrated Pre-Hospital, Levels 3-5

- ❖ Integrated approach for MTFs and Divisional Medical Units
- ❖ Coordinated Divisional Evacuation Standard Operating Procedures
- ❖ Adopt Clinical Practice Guidelines
- ❖ Communicate
- ❖ Train

Education & Advocacy

- ❖ Linkage with Service Medical Education and Training Centers
- ❖ Joint Combat Trauma Management Course (JCTMC)
- ❖ Trauma Outcomes and Performance Improvement Course - Military (TOPIC-M)

Prevention

- ❖ Linkage with Materiel Developers
- ❖ Service Centers for Health Promotion and Preventive Medicine

Information Systems

- ❖ Joint Theater Trauma Registry (JTTR)
 - ❖ Data for PI and Analysis
 - ❖ Data from Theater Medical Data Store (TMDS)
 - ❖ Modules to Support Related Functional Disciplines
 - ❖ DoD Trauma Registry - Longitudinal Trauma Registry
- ❖ Provide Data and Information Needs for MTFs / Services / DoD

Supports Research

- ❖ Provide Raw Data IAW Established MOAs and Protocols
- ❖ Provided statistical information through approved protocols

Performance Improvement



Performance Improvement

- Data driven process
- Involved multidisciplinary staff
- Inclusive of entire continuum of care
- Evaluate system response
- Improve patient outcomes
- Ensure standardization of provider practices



Performance Improvement

- Trauma System Process Improvement
 - Pre-hospital Care and Triage
 - Timeliness of Care and Procedures
 - Review of Care
 - Appropriateness and Legibility of Documentation
 - Compliance / Development of Guidelines, Protocols and Pathways
 - Prevention

DATA COLLECTION!!!



JTTS Performance Improvement

- Each Level III (and Role 3)
 - Morbidity & Mortality conferences
 - Reviews done by Theater Trauma Coordinators
- Reviews at each facility (LRMC, WRAMC, BAMC, Bethesda)
- Weekly Patient Management Conferences
 - 0800 Eastern Time
- Monthly System-Wide Trauma conferences



Theater Performance Improvement Sample Indicators

- Last recorded temp pre-hospital
- First recorded temp at Level III
- Nurses TTR
- MD TTR
- Occult injury not found on initial history and physical
- Penetration of PPE
- DVT prevention
- Laparotomy for abdominal trauma >4hrs
- Craniotomy for head trauma >4hrs
- Initial treatment for open fracture or joint laceration >8hrs
- Unplanned return to OR within 24 hours of initial surgery
- Re-intubated within 24 hours of extubation



CPGs

Joint Theater Trauma System Clinical Practice Guideline

POST-SPLENECTOMY VACCINATION			
Original Release/Approval	30 Mar 2008	Note: This CPG requires an annual review.	
Reviewed:	Dec 2008	Approved:	5 Jan 08
Supersedes:	Post Splenectomy Vaccination, 5 Nov 08		
<input checked="" type="checkbox"/> Minor Changes (or)	<input type="checkbox"/> Changes are substantial and require a thorough reading of this CPG (or)		
<input type="checkbox"/> Significant Changes	Added Appendix A: Includes 6-month review of use of the CPG in theater; includes additional clinical references.		

1. Goal. All post-splenectomy and functionally asplenic trauma patients in the CENTCOM AOR will receive appropriate and timely vaccination. All vaccinations will be documented in the longitudinal medical record and include date/time of physician order and date/time of administration by nursing personnel.

2. Background. Overwhelming, post-splenectomy sepsis (OPSS) is a rare but devastating complication with a case mortality rate in most studies approaching 50%.¹ OPSS represents a life-long risk, with the incidence in trauma patients estimated to be < 0.5%.² It is estimated that splenectomized individuals are up to 540 times more susceptible to lethal sepsis than the general population.³ The majority of trauma surgeons provide some sort of post-splenectomy vaccination to their patients, although to date, there is no consensus on timing of initial vaccination, vaccination regimen, or future re-vaccination. In 2002, Shatz conducted a survey of trauma surgeons regarding their vaccination practices in post-splenectomy patients. Of 261 active surgeons, 99.2% immunized their splenectomized patients: 1) All but two provided the pneumococcal vaccine, 2) 62.8% advocated the meningococcal vaccination, 3) 72.4% added the Haemophilus influenzae vaccine, and 4) 56.7% gave all three vaccines. The timing of vaccination ranged from the immediate post-operative period to six weeks following surgery.⁴

Within the CENTCOM AOR, > 99% of splenic injuries are managed by total splenectomy. Since these patients are at risk for OPSS, there must be a standardized process to provide post-splenectomy vaccination, accurate documentation, and life-long tracking to identify outcomes (See Appendix A for additional clinical background).

3. Indications. All splenectomized patients and those deemed to be functionally asplenic (i.e., < 51% normal architecture and/or vascularization in the remaining splenic segment).

4. Dosing.

- a. Streptococcus pneumoniae (23-valent polysaccharide): Single dose.
- b. Haemophilus influenzae B. (Polysaccharide-protein conjugate) By patient age:
 - 1) 2 - 6 months: Three doses + booster
 - 2) 7 - 11 months: Two doses + booster
 - 3) 12 - 14 months: One dose + booster
 - 4) > 15 months: Single dose
- c. Neisseria meningitidis (Quadrivalent): Single dose

Guideline Only/Not a Substitute for Clinical Judgment

January 2009



Access Trauma CPGs

- <http://www.usaisr.amedd.army.mil/cpgs.html>

Home	General Information	Joint Theater Trauma System	Tactical Combat Casualty Care	Burn Center	Combat Casualty Care Research	BRAC	Web Information
----------------------	-------------------------------------	---	---	-----------------------------	---	----------------------	---------------------------------

U.S. Army Institute of Surgical Research
Joint Theater Trauma System
Clinical Practice Guidelines



The Joint Theater Trauma System (JTTS) provides the following listed clinical practice guidelines for:
(Updated 25 November 2009)

Opposing viewpoints are encouraged in the interest of advancing medical treatment.
To submit an opposing viewpoint please e-mail: webmaster.usaisr@amedd.army.mil

1. [CENTCOM JTTS CPG Development Approval Implementation and Monitoring Process](#)
2. [Acoustic Trauma and Hearing Loss](#)
3. [Trauma Airway Management](#)
4. [Blunt Abdominal Trauma](#)
5. [Burn Care](#)
6. [Compartment Syndrome and Fasciotomy](#)
7. [Damage Control Resuscitation at Level IIb/III Treatment Facilities](#)
8. [Prevention of Deep Venous Thrombosis](#)
9. [Emergency Resuscitative Thoracotomy](#)
10. [Use of Electronic Clinical Documentation in the CENTCOM AOR](#)
11. [Extremity Soft Tissue Wound/Amputation Management](#)
12. [Frozen and Deglycerolized Red Blood Cells](#)
13. [Fresh Whole Blood \(FWB\) Transfusion](#)
14. [Hypothermia Prevention, Monitoring and Management](#)
15. [Inhalation Injury and Toxic Industrial Chemical Exposure](#)
16. [Irrigation of War Wounds: Wound Debridement, Washout and Irrigation](#)
17. [Management of Mild Traumatic Brain Injury \(mTBI\)/Concussion in the Deployed Setting](#)

JTTS Home Page
(Google: USAISR)



Current CENTCOM JTTS CPGs

- CPG Index
- CENTCOM JTTS CPG Process – 30 April 10
- Acoustic Trauma and Hearing Loss - 16 Feb 10
- Amputation - 16 Feb 10
- Blunt Abdominal Trauma - 07 Nov 09
- Burn Care - 21 Nov 09
- Catastrophic Care - 16 Feb 10
- Cervical Spine Evaluation - 16 Feb 10
- Compartment Syndrome (CS) and the Role of Fasciotomy in Extremity War Wounds – 30 Apr 10



Current CENTCOM JTTS CPGs

- CPG nutrition - 16 Feb 10
- Damage Control Resuscitation at Level IIb/III Treatment Facilities – 13 Feb 10
- Emergent Resuscitative Thoracotomy – 06 May 10
- Fresh Whole Blood (FWB) Transfusion - 12 Jan 10
- Frozen and Deglycerolized Red Blood Cells (RBCs) - 12 Nov 09
- Hypothermia Prevention, Monitoring, and Management 12 Nov 09
- Infection Control - 16 Feb 10



Current CENTCOM JTTS CPGs

- Inhalation Injury and Toxic Industrial Chemical Exposure – 07 Nov 09
- Initial Care of Ocular and Adnexal Injuries - 16 Feb 10
- Intratheater Transfer and Transport of Level II and III Critical Care Trauma Patients – 19 Nov 09
- Management of Mild TBI (mTBI)/Concussion in the Deployed Setting – 21 Nov 09
- Management of Patients with Severe Head Trauma 13 Feb 10
- Management of War Wounds - 16 Feb 10



Current CENTCOM JTTS CPGs

- Pelvic Fracture Care 12 Nov 09
- Post-Splenectomy Vaccination – 05 Jan 10
- Prevention of Deep Venous Thrombosis (DVT) – 21 Nov 09
- Trauma Airway Management – 26 Nov 09
- Urologic Trauma Management – 07 Nov 09
- Use of Electronic Clinical Documentation in the CENTCOM AOR – 07 Nov 09
- Use of Trauma Flow Sheets - 01 Dec 09
- VAP - 16 Feb 10
- Vascular Injury – 07 Nov 09



CPG “Authority”

- Approved by CENTCOM JTTS Director, JTS Director and Deputy Director and CENTCOM SG



What is the JTTR?

- It is **NOT** the medical record
- It is **NOT** a research database, although it supports it
- It is **NOT** a patient tracking tool
- A trauma registry is a compilation of *identified* information taken from the medical record, expert clinical inference, scoring and coding schematics, probability determination and ***performance improvement data*** requiring human intervention

JTTR

- Largest combat Injury database in existence
- All services injury data derived from level IIb, III, IV and V medical charts
 - Scoring of Injuries (AIS, ISS, MISS)
 - Diagnosis and Procedures
 - Outcomes
- Currently represents >24,000 US trauma patients, >53,000 total patients, >90,000 total patient-records

JTTR

- Comprehensive initial database
 - Demographic
 - Mechanism
 - Anatomic
 - Physiologic
 - Acute outcomes
- Increased commitment tracked II/III through level V
 - Documentation / capture prior Level II needs improvement



Why are Data Important?

- Data improve practice
- Data drive doctrine and policy

Key Data Elements



Trauma Data Editor

Demographic | Injury | Pre-Facility | Ref Fac | ED | Pt Tracking | Provider/Consult | Procedures | Blood/Fluids | Dx | Outcome | PI | Memo

Linkage Elements | Demographic

[Facility] 942 28th CSH (S-BAGHDAD) [Record Created By] MASTER Super User
[Trauma Number] 20070001 [Created On] 09/17/2007@09:34

[Record Complete]

Record Scanned Y

Incident ID
CIDNE Number
Tactical Event IDs 1: unk 2: unk
Battle Roster Number M1889
Social Security Number
Pseudo SSN - -
Last Name Martinez

Check Save Save and Exit Print Close Prev Next

Trauma Number: 20070001 Arrival Date: 9/10/2007



Where Does JTTR Data Come From?

PHYSICIAN TRAUMA ADMITTING RECORD (Theater Hospitalization Capability) - Previously Level 3
(All shaded areas mandatory for Joint Theater Trauma Registry data collection)

DATE: _____ VITAL SIGNS _____ TRIAGE CATEGORY
TIME OF INJURY: _____ Immediate Delayed
TIME OF ARRIVAL: _____ Minimal Expeofant
LOCATION OF PRE-HOSP. CARE: T ___ P ___ R ___ BP ___ O2 Sat ___

HISTORY & PHYSICAL

INJURY DESCRIPTION R L L R **Dulles Present:** Se-Strong Se-Weak De-Doppler A-Absent

MECHANISM OF INJURY Assault/Fight Biological Blast Trauma Bomb Building Collapse Burn Chemical Crash Drowning Fall Flying Debris Grenade Gun/Bullet Halo Crash Hot Obj/Liquid ED Knife/Edge Landmine Machinery Mortar Multi-Frag MVC Plane Crash Rad/Nuclear Single Frag UXO Other _____

CARE DONE PRIOR TO ARRIVAL
Pre-hosp. Airway: no yes
Pre-hosp. Tourniquet: no yes Type: _____ TIME On: _____ OFF: _____
Pre-hosp. Chest Tube: no yes R L (circle as applicable)
Temp Control Measure: no yes Type: body bag other
Intravenous Access: no yes

HISTORY AND PRESENTING ILLNESS: _____

HISTORY & PHYSICAL

Head & Neck: Tympanic Membranes: Clear R L Blood R L C-Color Intubate CRIC Cathotomy (circle LR) Chest tube R L Output Blood rls Air Needle decompression R L Output Blood rls Air

Chest: Percardiocentesis Thoracostomy

Abdomen: Rectal Exam: FAST Tone: DPL Gross Blood +/- NGOG Prostate: Pelvic Bladder Foley GYN _____

Pelvic: Stable Unstable

Upper Extremities: Closed Reduction EXT Position Splint Wound Washout Tourniquet Type CAT / SOFTT / Oth. Time On: _____ Time Off: _____

Lower extremities: Closed reduction EXT Fixation Splint Wound washout Tourniquet Type CAT / SOFTT / Oth. Time on: _____ Time off: _____

Neuro: GCS: E_4 M_3 V_5 Motor Deficit: None R UE/L L UE/L Vision: Pupils: Size mm R L Drisk Sluggish RT Hand Motion Light Perception No Light Perception

HYPOTERMIA CONTROL MEASURES
Beginning Temp _____ Time/date _____
Ending Temp _____
Temperature Control Procedure: Bar Hugger Body Bag Fwd Revas Fluid Warmer Central Line Chl Buster Body Bag Cooling Blanket A-Line Other _____

CBC **CHEMISTRY 7** **LFT** **URINALYSIS** **ALLERGIES**

PT/INR/PTT **ABO** **MEDICATIONS** **IV FLUIDS/BLOOD PRODUCTS** **PMH**

Patient NAME/ID: Last: _____ MI _____ DATE: (dd.mm.yy) _____
DOB/AGE _____ MTF transferred from: _____
ASORNA September 2005 (March 2010 Interim Update) This Form is Subject to the Privacy Act of 1974 Page 1 of 2

PHYSICIAN TRAUMA ADMITTING RECORD (Theater Hospitalization Capability) - Previously Level 3
(All shaded areas mandatory for Joint Theater Trauma Registry data collection)

DATE: _____ VITAL SIGNS _____ TRIAGE CATEGORY
TIME OF INJURY: _____ Immediate Delayed
TIME OF ARRIVAL: _____ Minimal Expeofant
LOCATION OF PRE-HOSP. CARE: T ___ P ___ R ___ BP ___ O2 Sat ___

HISTORY & PHYSICAL

INJURY DESCRIPTION R L L R **Dulles Present:** Se-Strong Se-Weak De-Doppler A-Absent

MECHANISM OF INJURY Assault/Fight Biological Blast Trauma Bomb Building Collapse Burn Chemical Crash Drowning Fall Flying Debris Grenade Gun/Bullet Halo Crash Hot Obj/Liquid ED Knife/Edge Landmine Machinery Mortar Multi-Frag MVC Plane Crash Rad/Nuclear Single Frag UXO Other _____

CARE DONE PRIOR TO ARRIVAL
Pre-hosp. Airway: no yes
Pre-hosp. Tourniquet: no yes Type: _____ TIME On: _____ OFF: _____
Pre-hosp. Chest Tube: no yes R L (circle as applicable)
Temp Control Measure: no yes Type: body bag other
Intravenous Access: no yes

HISTORY AND PRESENTING ILLNESS: _____

HISTORY & PHYSICAL

Head & Neck: Tympanic Membranes: Clear R L Blood R L C-Color Intubate CRIC Cathotomy (circle LR) Chest tube R L Output Blood rls Air Needle decompression R L Output Blood rls Air

Chest: Percardiocentesis Thoracostomy

Abdomen: Rectal Exam: FAST Tone: DPL Gross Blood +/- NGOG Prostate: Pelvic Bladder Foley GYN _____

Pelvic: Stable Unstable

Upper Extremities: Closed Reduction EXT Position Splint Wound Washout Tourniquet Type CAT / SOFTT / Oth. Time On: _____ Time Off: _____

Lower extremities: Closed reduction EXT Fixation Splint Wound washout Tourniquet Type CAT / SOFTT / Oth. Time on: _____ Time off: _____

Neuro: GCS: E_4 M_3 V_5 Motor Deficit: None R UE/L L UE/L Vision: Pupils: Size mm R L Drisk Sluggish RT Hand Motion Light Perception No Light Perception

HYPOTERMIA CONTROL MEASURES
Beginning Temp _____ Time/date _____
Ending Temp _____
Temperature Control Procedure: Bar Hugger Body Bag Fwd Revas Fluid Warmer Central Line Chl Buster Body Bag Cooling Blanket A-Line Other _____

CBC **CHEMISTRY 7** **LFT** **URINALYSIS** **ALLERGIES**

PT/INR/PTT **ABO** **MEDICATIONS** **IV FLUIDS/BLOOD PRODUCTS** **PMH**

Patient NAME/ID: Last: _____ MI _____ DATE: (dd.mm.yy) _____
DOB/AGE _____ MTF transferred from: _____
ASORNA September 2005 (March 2010 Interim Update) This Form is Subject to the Privacy Act of 1974 Page 1 of 2





From Where Do JTTR Data Come?



TC2 Progress Note

Author: XXXXX, XXXXX

BAGRAM/CAMP LACY(7459)

OP NOTE

pre/post op dx: penetrating trans-abdominal/trans-spinal injury

procedure: re-laparotomy, splenectomy, re-resection of distal transverse colon, temporary abdominal closure

surgeon: xxxxxx/zzzz

GETA

findings: moderate peri-splenic hematoma tracking along the gastro-splenic ligament and up around the GE junction with some active extravasation. Splenectomy performed. Pancreatic tail in close proximity to the splenic hilum so blake closed suction drain placed in the LUQ.

Distal aspect of the previously resected transverse colon appeared dusky so an additional 2-3 cm were resected. The previous suture repair of the sigmoid colon appeared healthy. The L renal fossa and injured psoas muscles were oozing minimally--thrombin soaked gelfoam placed in the wound bed after irrigating with warm saline. R inferior renal pole floating but no expanding R perinephric hematoma seen so Gerota's fascia left intact. Due to previously identified collecting system disruption, closed suction drain placed in the vicinity of the R kidney. No additional injuries were identified the abdomen was irrigated with 6L warm saline and then a temporary abdominal closure was fashioned. He was transported back to the ICU intubated on the same drips as pre-op (neo, low dose propofol, fentanyl).

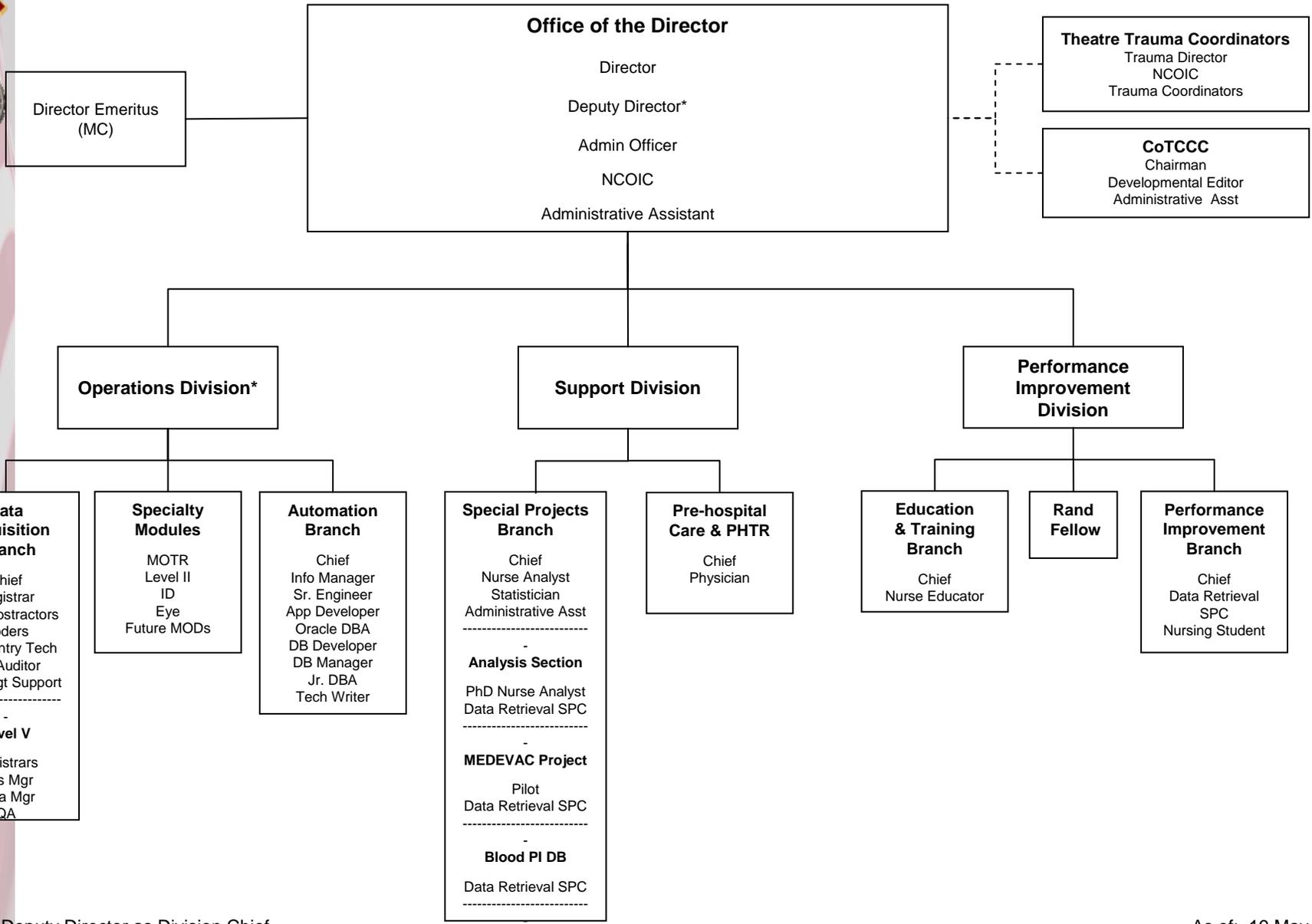
Plan: monitor labs and hemodynamics--if stable, plan for evacuation via next CCATT mission



The Future



Joint Theater Trauma System Directorate



* Indicates Deputy Director as Division Chief

BSWM Project



The Future

- Military “White Book”
- COCOM site visits
- Medical Director Fellowship
- Program Manager Fellowship
- TNC Fellowship
- Tri-Service Military manning: Need Navy



Recommendations

- **Establish the JTTS as a program of record with the Army as Executive Agent and provide long-term funding and spaces to the Army that are sufficient to sustain JTTS operations both during and between periods of conflict. The ongoing presence of the JTTS and JTTR will ensure that the Department does not experience a recurrence of the deficiencies in theater trauma care identified in Operations Desert Shield and Desert Storm.**



Recommendations

- **Establish the permanent location of the JTTS and JTTR as a part of the US Army Institute of Surgical Research at the Battlefield Health and Trauma Research Institute at Fort Sam Houston, Texas**
- **The Board further recommends that this issue be reviewed after 18 months to evaluate the action taken on the above recommendations.**



Questions????