Appendix 3

Theater Joint Trauma Record

General

Evidence-based medicine has become the goal of all specialties. Unfortunately, because of the realities of Combat Trauma, timely and accurate data collection and interpretation of results are difficult. Quality information on casualties for combatant commanders is essential because it facilitates optimal placement, utilization, and resupply of scarce medical resources, and rapid identification of new trends in wounding and treatment. Accurate, aggregated theater information is necessary to shorten quality improvement cycles in deployed treatment facilities.

Furthermore, these data placed on a website could provide rapid feedback to the sending physicians, allowing individual follow-up on their patients. These concepts are not new: they are routinely employed in the > 1,000 verified trauma centers in the US. Application of these principles to the battlefield, using a limited set of jointly approved data elements is described below. This data collection effort is not designed to be an extra step. The proposed form can be used as the trauma chart (both battle and nonbattle injury) and sent to the next evacuation Level with the casualty.

Situational Awareness

The revolution in warfighting which has digitized the battlefield to display friendly positions, intelligence, and engagements electronically has not been equally applied to the casualty side of the equation. This places demands on medical organizations to provide online and continuously updated status and location information on killed, wounded, ill, and psychologically impaired combatants and noncombatants; which includes both the casualty loss to the unit and the return to duty patient. This

need will only escalate, as medical situational awareness plays an increasing role in the tactical risk assessment process. At a minimum, commanders should be able to assess Killed In Action (KIA, died before reaching medical care/force wounded) and Died Of Wounds (DOW, die after reaching medical care/force wounded) in order to measure risk associated with operations and the capability of the medical force to control mortality.

$$\text{Percentage KIA} = \frac{\text{No. killed before reaching a BAS}}{\text{No. of casualties (killed + admitted)}} \bullet 100$$

$$\text{Percentage DOW} = \frac{\text{No. died after reaching a BAS}}{\text{No. of admitted}} \bullet 100$$

Where admitted is defined as any casualty that stays at a Level II facility or above. These definitions do not include the carded for record category in the denominator.

A breakdown of casualties by type of injury and the major body regions (ie, face, head and neck, chest, abdomen and pelvis, upper and lower extremities, and skin) will enable an analysis of injury patterns that can be utilized to design interventions resulting in a decrease in morbidity and mortality.

Other Uses

Data on types of wounds, their causes, and appropriate procedures have potential value in constructing predictive models for medical force development and placement, logistical delivery systems, and research on improved medical interventions. The history of improvements in medicine and surgery are grounded on the battlefield, and dissemination should not be limited to the isolated innovator with a personal spreadsheet for documentation. Individual providers at individual medical treatment facilities (MTFs) have long recorded clinical data and observations. This Joint Theater Trauma Record effort is an extension of their efforts.

Minimum Essential Data

In addition to recording the standard contents of the postprocedure note (ie, who did what, on whom, why, and a plan), the standard data components of a trauma registry are especially helpful (eg, demographics, circumstance and mechanism of injury, pre-hospital monitoring and care, hospital monitoring and care, outcome, participants, direct assessment against standards). Figure A-1 (see next four pages) is a sample form that can serve as both the trauma chart and the data entry source. These minimum essential elements have been agreed on by the US Army, Air Force and Navy. Data will be collated and placed on a website at the first Level IV facility in the evacuation chain.

Recommended Methods and Technology

The process to document emergency trauma care can be employed on either the immature or mature battlefield. This would entail utilizing paper or computer-assisted electronic technology, respectively. In the ideal environment, this would be a single step process. Reality is much different. It is important to recognize that documentation should occur at all Levels, while aggregation of data should occur at the first Level that can support such activity. At a minimum, paper documentation should be used for each casualty and the chart should accompany the patient to the rear as evacuation occurs. When electronic records are available, this process will be simplified.

Trauma Record

DISCHARGE SUMMARY

MEDICATIONS:	LABS:	XRAYS:	PMH: Allergies:

REGION	DIAGNOSIS, PROCEDURES and COMPLICATONS
Face	
Head & Neck (incl C-spine)	
Chest (incl T-spine)	
Abdomen (incl L-spine)	
Pelvis	

UPPER /LOWER Extremities		
Skin		
DISPOSTION DTG:	☐ EVAC to _____ ☐ RTD ☐ DECEASED (see below)	Evacuation Priority ☐ ROUTINE ☐ PRIORITY ☐ URGENT

Damage Control Procedures? Y / N Hypothermic (< 34°C)? Y / N Coagulopathy? Y / N

Cause of Death at _____:

ANATOMIC:
☐Airway ☐Head ☐ Neck ☐ Chest ☐Abdomen ☐Pelvis ☐ Extremity (Upper/Lower)
☐Other

PHYSIOLOGIC:
☐ Breathing ☐CNS ☐Hemorrhage ☐Total Body Disruption ☐Sepsis ☐Multi-organ failure

COMMENTS: SURGEON:
(printedName)

Trauma Record

For use of this form, see DoD Memo: Subject :Trauma Record, dtd 1 APR 04; the proponent agency is OTSG

AUTHORITY: AR 40-66
PURPOSE: To provide a standard means of documenting all trauma care at echelons 1-3
ROUTINE USES: The "Blanket Routine Uses" set forth at the beginning of the Army compilation of systems of records notice apply.
DISCLOSURE: This is protected health information. HIPAA laws apply

MTF DESIGNATION: Number TYPE

CASUALTY NAME: FIRST LAST

CASUALTY SSN: - -

Arrive Date-Time Group (DTG):

Rank Date of Birth Gender ☐ Male ☐ Female Unit

ARRIVAL METHOD:
☐ WALKED ☐ CARRIED ☐ Non-MED AIR ☐ OTHER _____
☐ Non-MED GND ☐ SHIP EVAC ☐ GND AMB ☐ AIR AMB

Nation
☐ US ☐ Host Nation ☐ Enemy( ) ☐ Coalition( )

Service
☐ Civilian ☐ Combatant ☐ Contractor ☐ USA
☐ USN ☐ USMC ☐ USAF ☐ SOF
☐ NGO ( ) ☐ Other _____

Wound DTG:

WOUNDED BY:
☐ US/COALITION(Nation_____)
☐ ENEMY ☐ NonENEMY
☐ CIVILIAN (Nation_____)
☐ TRAINING
☐ SELF ACCIDENT
☐ SELF NON-ACCIDENT
☐ SPORTS-RECREATION
☐ OTHER:

PROTECTION: ☐ UNK

	Not Worn	Worn	Struck	Penetrated
HELMET				
FLAK VEST				
CERAMIC PLATE				
EYE PROTECTION				
OTHER:				

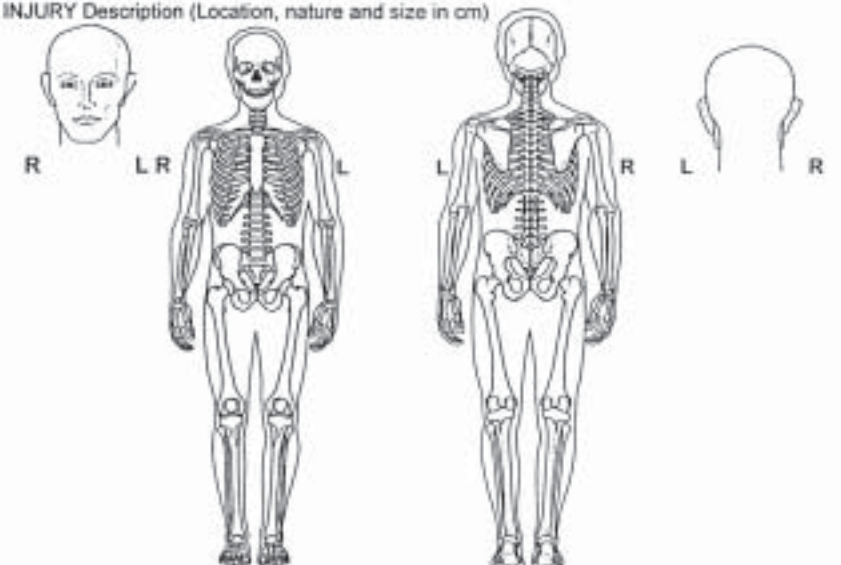
TRIAGE CATEGORY:
☐ IMMEDIATE ☐ DELAYED ☐ MINIMAL ☐ EXPECTANT

GLASGOW COMA SCALE (circle one)
3 8 12 15
UNC STUPOR LETHARGY ALERT

TIME	
Pulse	
Temp	
B/P	
Resp	
SpO_2	

MECHANISM OF INJURY:
☐ GSW/BULLET ☐ BLUNT TRAUMA ☐ SINGLE FRAGMENT ☐ MULTI FRAGMENT
☐ KNIFE / EDGE ☐ BLAST ☐ CRASH(a/c, veh, pe ☐ Chem/Rad/Nucl ☐ BURN (thermal, flash)
☐ CRUSH ☐ FALL ☐ SMOKE Inhalation ☐ HEAT ☐ COLD
☐ BITE / STING ☐ OTHER_____

INJURY Description (Location, nature and size in cm)



AM Amputation	BL Bleeding	D Deformity	H Hematoma
AV Avulsion	B Burn	F Foreign Body	L Laceration
P Puncture	X Fracture	S Stab Wnd	G Gunsh Wnd

OR Start Stop	Vent On Off	ICU in Out
PROVIDER:		SPECIALTY:

TX & PROCEDURES:	
SEDATED	
CHEM PARALYZED	
INTUBATED	
CRIC	
NEEDLE DECOMP	
Chest Tube	L R air/blood
IO line	
COLLOID	ml
CRYSTALLOID	LR/NS/HTS ml
TOURNIQUET	Time on Time off
Collar / C-spine Back board	
HEMOSTATIC DEVICE	
OXYGEN	Liters/min
RBC	Units
FFP	Units
CRYO	Units
Plts	Packs
Fresh Whole Bld	Units
rFVIIa	mcg/kg
EXT Fix /splnt	Extremity