




Eastern Association for the Surgery of Trauma

28th Annual Scientific Assembly

**Sunrise Session 11
Preparing for the Next War:
Pivotal Military-Civilian Relationships**

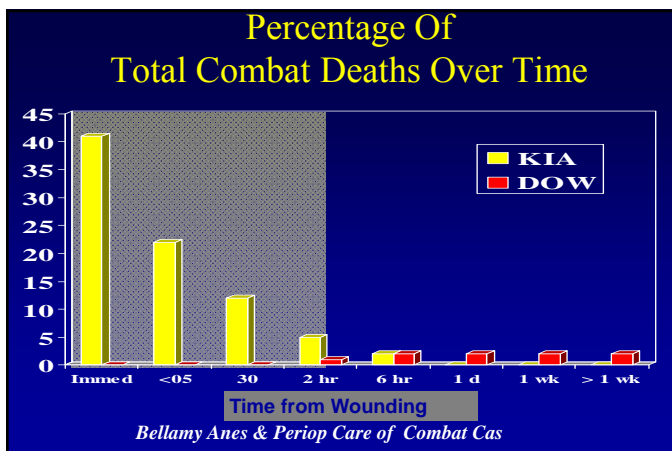
**January 16, 2015
Disney's Contemporary Resort
Lake Buena Vista, Florida**



Preparing for the Next War: Pivotal Military-Civilian Relationships

Masterminding the Joint Trauma System
Donald H Jenkins MD FACS
Trauma Director
Saint Marys Hospital
Rochester MN
16 January 2015

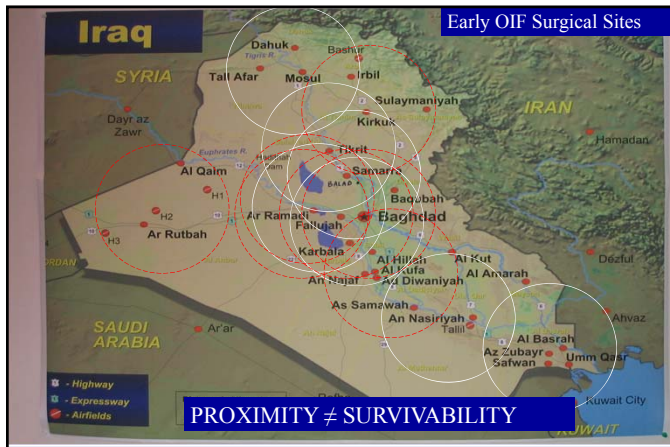


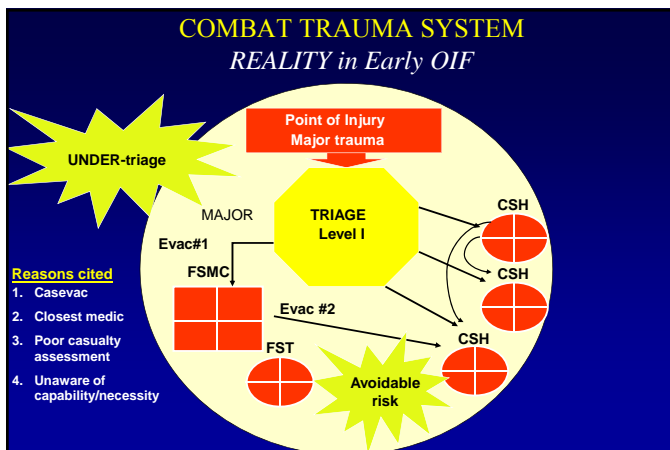


Early, Adequate Surgery is the Answer to Died of Wounds

- Most important steps are stopping hemorrhage and avoiding infection and sepsis
- Wounds debrided of nonviable, contaminated tissue with good blood supply are best able to resist infection







CONSEQUENCE

We had fallen behind the construct of
experience gained and lessons learned
from civilian trauma systems

Trauma System

DEFINITION

“An arrangement of available resources that are coordinated
for the effective delivery of emergency health care
services in geographical regions consistent with planning
and management standards.”

GOAL

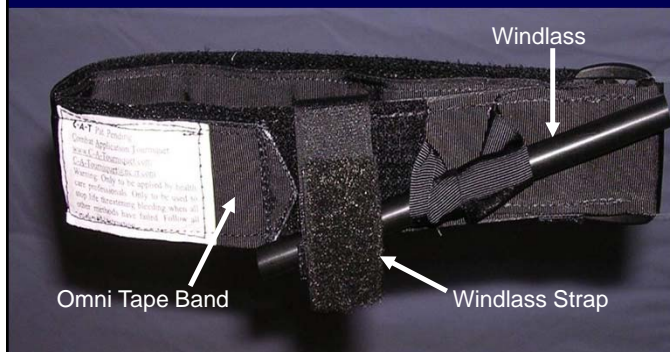
Get the right patient to the right hospital in the
right amount of time

DEL RIO MODEL OF TRAUMA CARE



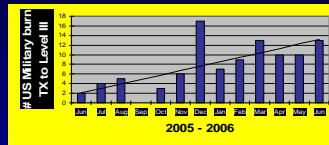
Combat Application Tourniquet

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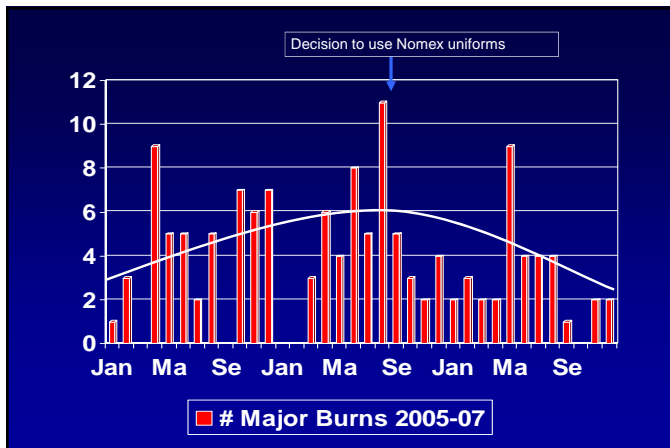


Burns May-July 2006

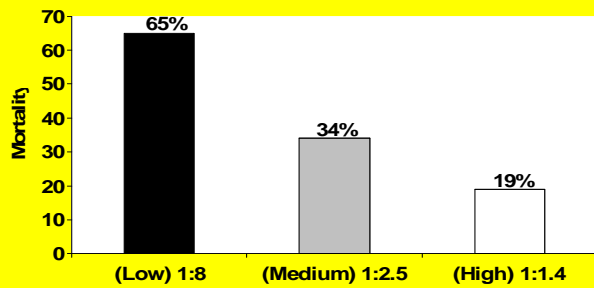
- 28 US Troops identified with burns transferred to Level III:
 - 82% due to IED; 68% Soldiers
 - 64% required surgery in theater
 - 70% > 10% Total Body Surface Area
 - 39% TBSA (avg 2003-05 = 14%)
 - Burn outcome: DOW = 5 (18%) (mortality 2003-2005 = 3.8%)
- Good Data = Good Decisions
 - \$25 million in Nomex uniforms distributed to all troops going outside the wire



Trend is from 3 US troops burned/month Jun 05 to 12 burned/month June 06



Mortality by Plasma : RBC Ratio

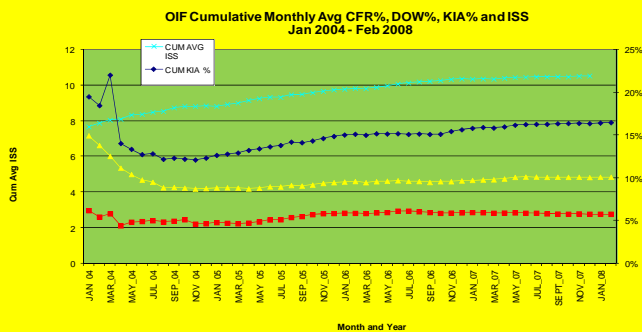


The ratio of blood products transfused affects mortality in patients receiving massive transfusions at a combat support hospital. Borgman MA, et. al.

Comparison of Statistics for Battle Casualties, 1941-2005

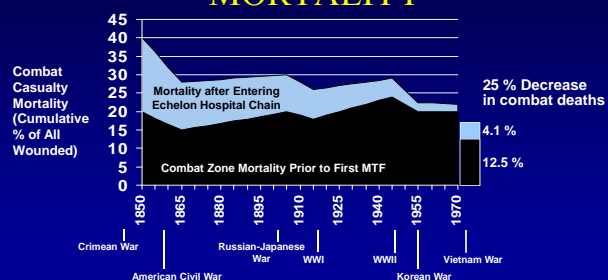
	World War II	Vietnam War	Iraq & Afghanistan
%KIA	23.7%	21.3%	12.5%
%DOW	3.4%	3.5%	4.1%
%CFR	22.8%	16.5%	8.8%

Combat Casualty Statistics OIF/OEF

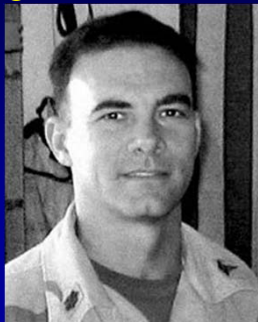


Data Source: Defense Manpower Data Center Statistical Analysis Division, OSD, JTTR v3.0

IN-THEATER COMBAT MORTALITY



MAJ Mark D. Taylor
Army surgeon killed 20 MAR 2004



COL Brian D. Allgood
Army surgeon killed 20 JAN 2007





John P. Pryor, KIA Mosul Iraq 25 December 2008


The Future is in Research

- Will require close military/civilian collaboration
- Will require dedicated funding
- We must follow long term outcomes through the VA system

What Are We Doing About It?


- Defense Health Board and its Trauma and Injury Subcommittee: report on lessons learned to SecDef
- National Trauma Institute: working with DoD researchers
- American Surgical Organizations Collaborative
- National Trauma Research Repository Development
- Large scale national injury and treatment studies
- Advocating for National Trauma Clinical Research Network Development and Funding






Leadership Development for the Joint Trauma System: Past and Future

Brian Eastridge, MD, FACS
COL, MC, USAR



Army Trauma Consultant Review of Battlefield Medical Care

- Unorganized delivery of trauma care on the battlefield
 - Casualties going to the wrong location
 - Suboptimal staffing and placement of surgical assets
- Medical records are not reliably being delivered with casualties at each level (<40%)
 - Impact on clinical care
 - Documentation directive
- No medical registry driven by medical input that allows accurate description of injuries or deaths
 - Unable to reliably answer questions and improve outcomes
 - Survivable Injuries and/or deaths
 - Lack of performance improvement measures / research



JTTS Vision / Mission

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.

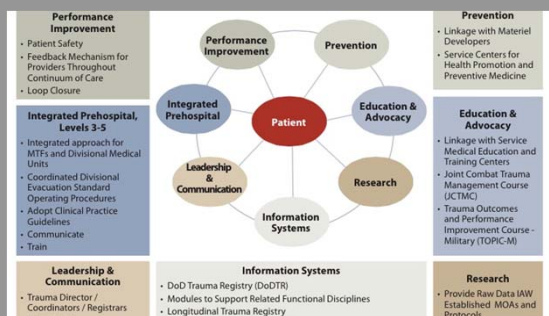
- Improve organization and delivery of trauma care
- Improve communication among clinicians in the evacuation chain to ensure continuity of care and access to data
- Populate the Joint Theater Trauma Registry (JTTR) to evaluate care provided, document outcomes, and facilitate conduct of formal research
- Evaluate and recommend new equipment or medical supplies for use in theater to improve efficiency, reduce cost, improve outcomes
- Facilitate medical performance improvement to promote real-time, data-driven clinical process improvements and improved outcomes

Joint Trauma System Leadership Goals

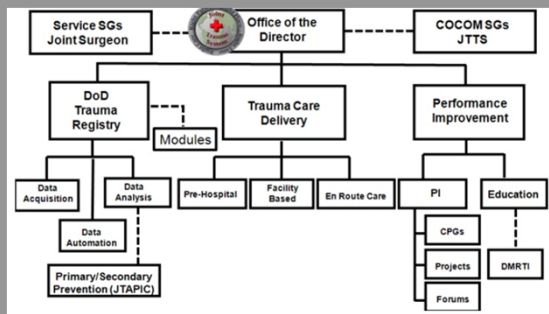
- Use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and other civilian organizations.
- Collected data used to evaluate system performance and to develop policies.
- Regularly review system performance to develop to best practice clinical guidelines .
- Informs and educates Services, regional and local constituencies, and policy makers to foster collaboration and cooperation for system enhancement and injury management.

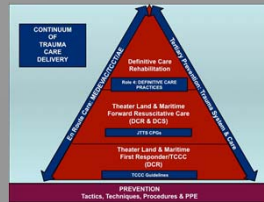
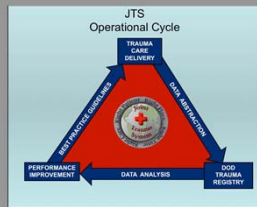


Joint Trauma System Components



Joint Trauma System Organization





- **Military**

- Joint or Unified command to maximize service to Joint medical community
- POM funding / peacetime sustainment
- Organization doctrinal mandate
- Optimal placement
- Co-locate with DoD medical training, DoD level I trauma centers, and Center for Battlefield Health and Trauma Research

Leadership Challenges for the Future

- Organizational sustainment
 - Staffing
 - Funding
 - Priority
- Civilian trauma partnerships
- Training platforms