Lessons Learned from Combat Casualty Care

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The Challenge-

Create lightweight, lean and mobile capability

Austere but adequate within a meaningful distance of the injured

Gulf War Dilemma
Non-linear/Asymmetrical Warfare

CSH

CASEVAC/MEDEVAC
- Cumbersome
- Heavy
- Slow to arrive in theater
- Too many people
- Misaligned specialties
- Outdated medical equipment
- No computer capability

**Cold War Paradigm:**

Prepositioned large forces overseas
Sophisticated, fixed facilities for medical care
Patient Evacuation System

- A remnant of our Vietnam experience
- Designed to move stable patients
- En route care personnel may not be current in critical care
- Normal crew
  - 2 RN’s
  - 3 AET’s
  - *May need to care for 60+ pt.’s*
Historical Route From Injury to Definitive Care

- **CASUALTY EVAC**
  - Evac Policy
  - 1 Day
  - "Level 1"

- **TACTICAL EVAC**
  - Evac Policy
  - 7 Days
  - Field Hospital
  - "Level 2"

- **STRATEGIC EVAC**
  - Evac Policy
  - 15 Days
  - In Theater Hospital
  - "Level 3"

- Definitive Care
  - "Level 4"

Average time Vietnam to Conus – 48 days
Joint Medical Support: Are We Asleep at the Switch?

By Arthur M. Smith
Priorities for Medical Readiness

- Provide “essential” care forward
- Austere but Adequate
  - Emphasis on early evacuation
- Modularize deployable medical units
- Critical care capable evacuation system

A Solution for Homeland Security ?????
- Stabilized, but not stable
- Hard to provide resource intensity and duration of care in austere environment

**Solution:**
Continuous En Route Combat Casualty Care
Austere Environment
The Challenge
Solution

1. Critical care MD
2. Critical care RN
3. Cardiopulmonary technician
Continuous En Route Care

Current Route from Injury to Definitive Care

CASEVAC 1 Hour

TACTICAL EVAC 1-24 Hours

STRATEGIC EVAC 24-72 Hours

Surgical Capability

BAS Level 1

Forward Surgical teams Level 2

Combat Support Hospital, EMEDS, Fleet Hospital Level 3

Definitive Care Level 4
Catastrophic

Irregular

Defeat Terrorist Networks

Counter WMD

Defend Homeland

Disruptive

Shape Choices

Traditional

“Shifting Our Weight”

Today’s Capability Portfolio
Once perceived as largely acute, post-casualty care, military medical capabilities are being reshaped into more responsive, joint-centered capabilities with more balance between prevention and treatment.

Historically, disease non-battle injuries (DNBIs) have been far greater sources of casualties than injuries and illnesses inflicted by enemy combatants.

- Prevention
- Intelligence
- Continuum is no longer linear
- The medical system must be capable of rapidly adapting to the conditions of the operation.
- Ensuring the right medical assets are available at the right place and at the right time.
- Must be seamless, interoperable, interdependent, and fully networked to advise and consult with various SMEs, military/civilian organizations, agencies and host nation treatment facilities.
The warfighter relies on preventive medicine disciplines to optimize human performance; vaccines, prophylactic medicines, epidemiology and health risk assessments, vector control measures, field industrial hygiene and food/water safety and sanitation.

Site and health risk assessment are key functions to ensure the protection of forces both in the garrison and deployed settings.
Need to align military health services capabilities to meet the requirements of Homeland Defense, civil support and medical civil-military operations.

Civil-Military teams must integrate medical expertise/intelligence into the earliest phases of planning, intelligence, diplomatic and military capabilities of the US Government, multinational partners and host nations, aided by adjunct academics and representative from international/agency government organizations.
Force Health Protection

- Must effectively provide health protection to a joint force that will
  - operate in a complex and diverse operational environment
  - confront a range of traditional and new adversaries and threats
  - employ and integrate new technologies
  - collaborate with other organizations, agencies, nations and cultures.

- Net centric operations to accelerate the ability to know, decide and act in real time with greater self-synchronization and precision.
Deserve the Very Best

With malice toward none, with charity for all... let us strive... to care for him who shall have borne the battle...

Abraham Lincoln, 1865
Questions?