Military Medicine in OIF/OEF
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Military Medicine in Modern Conflicts

- Overview of Military Medicine
- Lessons learned in Operations Iraqi Freedom and Enduring Freedom
- Evolving use of Athletic Trainers in Military Medicine
“Benefits of War”

• Major advances in Orthopedics made during war

• World War II
  – Hand surgery
  – Amputee care
  – Antibiotics
    • Sulfa powder, penicillin
  – Fracture Care
    • External fixation/Intramedullary nailing
Chester K Barta, MD

• “One of the things I learned was operating time should be brief; badly injured people don’t tolerate long procedures. If you take all day to operate on people you’re going to kill them.”
“Benefits of War”

• Vietnam
  – Evacuation system
  – Amputations and amputee care

• What has changed with current conflicts?
Modern Era Conflicts

- Urban battlefield
  - Somalia, Iraq
- Unforgiving terrain
  - Afghanistan
Early Lessons

• Improvements in body armor
• “Far Forward” medical care
  – Medics/Corpsmen
  – Field hospitals
    • “STP” – Surgical Trauma Platoon
    • Combat Surgical Hospital
  – Rapid transit through evacuation system
TCCC

- Tactical Combat Casualty Care
  - Immediate medical care during combat
  - Can be initiated by non-medical personnel
  - Emphasizes hemostasis
    - Tourniquet use
    - Hemostatic dressings
    - Rapid evacuation
Hemostatic Agents

- **QuikClot®**
  - Mineral zeolite
  - Causes thermal injury
  - Used by USMC/Navy

- **HemCon®**
  - Chitosan bandages
  - Used by Army/Air Force and
OIF and OEF Casualties

- 5828 dead as of November 20th, 2010
- 31,998 wounded in Iraq
- 9,240 wounded in Afghanistan
- Approximately 70% are Orthopaedic injuries
Who Cares?

- We’ll never see wounds like that
- We’ll never have to think about transit times
- We’ll never have to worry about those kinds of infections
How does it translate?

- Damage control Orthopedics
  - Initial stabilization while resuscitation is ongoing
  - Delayed definitive fixation
- Infection control
  - “Keep the field out of the wound”
- Soft tissue management
  - Multiple debridements
  - Creative coverage techniques
Extremity War Injury Symposia

• First held in January 2006
  – Collaborative effort between military orthopedic surgeons and OTA, AAOS
  – Published as a special edition in Sep 2006 JAAOS
  – Repeated each January since
Athletic Trainers in Military Medicine

• Used in recruit training
• Civilian ATCs
• USMC
  – MCRD San Diego
  – MCRD Parris Island
Athletic Trainers in Military Medicine

• Navy
  – SMART Clinic

• Army
  – Building the Soldier Athlete (BSA) Program
  – Musculoskeletal Action Team (MAT)
SMART Clinic (Navy/USMC)

- Sports Medicine And Rehabilitation Therapy
- Initiated in Training Commands
  - Recruit training
  - Marine Schools of Infantry
  - Naval Academy
- Now present at 19 Navy/Marine Corps bases
- “Treat service members like the elite athletes they are”
SMART Clinic Miramar

• Return to Duty
  29 days ➔ 6 days
• 1 in 16 patients
  needed specialty referral
• Two Physicians,
  One PA, Four
  ATCs
Army Medical Department

• Preventable Injuries cost the Army between $400 million and $720 million/year
• Established Center for Health Promotion and Preventive Medicine’s Injury Prevention Program
• More than 70% of injuries are lower extremity overuse injuries
Army

- **Musculoskeletal Action Plan**
  - Physical Therapists deployed with Brigade Combat Teams
    - Building the Soldier Athlete Program
  - Musculoskeletal Action Team
    - Project with Training and Doctrine Command
    - Includes civilian Athletic Trainers
    - Decrease injuries, optimize performance
    - Decrease attrition in military training
“Combat AT”

• Unit Medics and Corpsmen serve as athletic trainers, EMTs, paramedics, initial trauma surgeons
Multiple Medical Missions

• US Military Personnel/Civilian Contractors
• Allied Personnel
• Enemy combatants
• Local Civilian population
Double Amputee Returns to the Front Lines

- CPT Dan Luckett
- Returned to Afghanistan 2 years after IED struck his HUMVEE
THANK YOU!

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