Emergency War Surgery 5th Edition

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Disclosures

Presenters have no interest to disclose.

AMSUS and ACE/PESG staff have no interest to disclose.

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Learning Objectives
Emergency War Surgery 5th Edition Panel Discussion

At the conclusion of this activity, the participant will be able to:

1. Present the importance to meet required fundamental readiness elements of trauma and emergency war surgery.

2. Present required topics and subjects to understand the potential benefits of the updated publication during combat operations.

3. Understanding the relevance of the EWS book from DHA executive level.
COL Tanya Peacock
Introduction

• Panel member Introduction

• Why a 5th Edition now?

• Global use/Google Analytics

• Standards for all forces deployed
4th Edition Emergency War Surgery

102 Countries

1. United States
2. United Kingdom
3. France
4. Germany
5. Canada
6. Japan
7. Australia
8. South Korea
9. Spain
10. Italy

70%

7.7%

AMSUS
The Society of Federal Health Professionals
MG (Ret) Dr. Richard Thomas
President Uniformed Services University Health Sciences
EWS Panel Moderator
MG (Ret) Richard Thomas
President Uniformed Services University Health Sciences

The Impact of Military Medicine
CAPT Miguel A Cubano
Commanding Officer Naval Health Clinic Corpus Christi, TX

- Goals and Objectives
- Borden Institute
- Specialty Leaders
- 37 Chapters/Topics/TCCC/Readiness
- 64 Contributors/All Ranks/Deployment
- 15 Medical Editors
- Legacy
CAPT Eric Elster
Professor and Chairman, USU Walter Reed Surgery

Review of JTS CPGs, R2 Registry, References

Specialties Developed

- General Surgery
- Trauma Surgery* (MD)
- Critical Care (MD, RN) - Role 3 only-
- Emergency Medicine (MD, RN)

KSAs Produced

- Gen Surg 487 KSAs 8 Domains
- Ortho Surgery 281 KSAs 5 Domain
- Anesthesia 350 KSAs 7 Domains
- CC Nursing 523 KSAs 8 Domains
- Critical Care 325 KSAs 8 Domains
- Trauma Surgery 988 KSAs 11 Domains

ED
486 KSAs 8 Domains

AMSSUS
The Society of Federal Health Professionals
Col Michael Charlton
Defense Medical Readiness Training Institute
Orthopedic Trauma Surgery

  – 77% of all casualties MSK wounds
  – Incidence of MSK combat casualties = 3.06 per 1000 deployed personnel per year
  – Amputations represented 6 percent of all combat wounds

• Textbook focus
  – CPG centric, procedurally based
    • Pelvic fracture management, Soft tissue debridement, Amputations, Extremity fracture management, Spine Injuries, Compartment Syndrome
The need for EWS for vascular injuries

- Vascular Injuries are the most common “subspecialty” case treated at ROLE 3s from 2003 to 2015. 3X more common than neurosurgical cases and 6X more common than ophthalmologic cases. (Joint Trauma System's [JTS] Department of Defense Trauma Registry [DoDTR])

- “A survey of general surgeons from all military services who deployed between 2002 and 2012 found that 80% of respondents desired additional training on particular surgical disciplines or injury types prior to deployment. The most commonly requested types of training were extremity vascular repairs, neurosurgery, orthopedics and abdominal vascular repairs. Surgeons overwhelmingly cited vascular surgeries as the most difficult cases, followed by neurosurgical procedures, burns, and thoracic cases.” (Military Compensation and Retirement Modernization Commission [MCRMC] Section 3, Page 63)
What’s in the new edition?

• Continued emphasis on damage control techniques (e.g., shunting)

• Continued emphasis on exposures

• New discussion of the role of endovascular techniques
COL Jennifer Gurney
Joint Trauma System / US Army Institute of Surgical Research

Updates in Blood
Transfusion Strategies / Damage Control / Walking Blood Bank

COL Andre Cap, US Army Institute of Surgical Research
LTC Jason Corley, Armed Serviced Blood Program
CPT Sarah Matthews, OIR TF MED 47 Blood Bank
Updates in Blood

Transfusion Strategies / Damage Control / Walking Blood Bank

History of Pre-Hospital Shock Resuscitation

WW I  WW II  Korea  Vietnam  OIF/OEF

60 years of Blood  30 years of Clear Fluids  Back to the future???

→ Whole Blood
Updates in Blood
Transfusion Strategies / Damage Control / Walking Blood Bank

- **Blood must be able to deliver oxygen & form clots!**
  - Minimize crystalloid, **NO HEXTEND**
  - RBC:FFP:PLT:cryo = “1:1:1:1” or better:
    - **WHOLE BLOOD**
      - Treats loss of RBC, fibrinogen, platelet function, etc.

Tranexamic acid for fibrinolysis

**THIS, not that!**
Updates in Blood
Transfusion Strategies / Damage Control / Walking Blood Bank

Why Fresh Whole Blood?

• Limited supply/availability
  - Platelet and plasma
  - Pre-hospital setting

• From 2001-2018:
  - > 10,500 units of FWB have been transfused to treat combat casualties

WHOLE BLOOD
Treats loss of RBC, fibrinogen, platelet function, etc.

Resource Intensive & Training Investment

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Updates in Blood: EWS and JTS CPGs

Back to the Future: Blood Far Forward and Whole Blood

Korean War - ~400,000 units of Gr O WB used
Vietnam War – 230,323 WB units (all ABO groups) transfused 1967 to 1969
LTC Curtis Schmidt, DC USA
Cleft and Craniofacial Surgery Fellow LSUHSC

• Prevalence and significance of maxillofacial infection
• Role for definitive in-theater fracture repair
• Role for primary craniofacial bone grafting
• Facilitating dentofacial reconstruction through appropriate in-theater management
EWS includes Tactical Combat Casualty Care

TCCC in the SOCM Course

Army and Navy SOCM graduates

TCCC in the area of operations
VADM Raquel Bono
Director, Defense Health Agency

An Integrated System of Readiness & Health
Question and Answer

All Panel Members
CE/CME Credit

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