Special Operations Medicine

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Panel Members

- SGM F Bowling – HQ USSOCOM
  (Medical Simulation and Training)
- LtCol Rebecca Carter - AFSOC
  (Portable Diagnostics)
- HMC Courtney Lust - MARSOC
  (Pre-Hospital/TCCC)
- LTC Jamie Riesberg – JSOMTC
  (Prolonged Field Care)
- MAJ Rebecca Baxter - USASOC
  (Canine Medicine / Performance)

The views expressed in this presentation are those of the author(s) and may not reflect the official policy or position of the US Special Operations Command, Department of Defense, or the U.S. Government.
Purpose

To enhance industry understanding of Special Operations Medicine and Current Technology Gaps.

• Research Areas of Interest
  ➢ Medical Simulation and Training
  ➢ Portable Diagnostics
  ➢ Pre-Hospital/Tactical Combat Casualty Care
  ➢ Prolonged Field Care
  ➢ Canine Medicine / Performance

• Research / Collaboration Opportunities
  ➢ Annual Broad Agency Announcement(s)
  ➢ Technology & Industry Liaison Office (TILO)
  ➢ Small Business Innovation Research (SBIR)
  ➢ Cooperative Research and Development Agreement (CRADA)
Research Areas of Interest

- Medical Simulation and Training Technologies
- Portable Lab Diagnostics
- Damage Control Resuscitation/TCCC
- Prolonged Field Care
- Canine Medicine/Performance
- Force Health Protection and Environmental Medicine
- Human Performance
1. Pre-Hospital Focus

2. Advanced Trauma Task Training Models

3. Cognitive Behavioral Approach

4. Ruggedized / Suitable for Field Use
1. Portable and Environmentally Stable
   1. Multiple Capabilities and Sample Types
   2. Simple Sample Preparation

2. Biological / Clinical Diagnostics
   1. Diseases of Operational Significance (Malaria, Typhoid, Dengue Fever, etc.)
   2. Blood Chemistry Analysis

3. Occupational and Environmental Health Hazards: Industrial contaminants, food borne pathogens, toxins, agents, and biological material exposures.
“GOOD MEDICINE...BAD PLACES”

- Starts with, but is not all inclusive to Care Under Fire
- Overlap with all other research areas of interest
1. Global Treatment Strategies: hypotensive resuscitation, optimal fluid(s), uncomplicated shock, non-compressible hemorrhage, traumatic brain injuries

2. Analgesia: Simple administration in the field, tolerance of extreme environments. Maximum analgesia w/ minimal sedation.

3. Far Forward Blood, Blood Components, & Injectable Hemostatics

4. Austere Surgical Stabilization
1. Management of a critical patient, or multiple serious patients, in an austere environment over extended period of time

2. Beyond doctrinal planning time-lines; limited resources

3. Focused on austere environment with delayed or no evacuation/surgical support

4. Research directed at biology and physiology associated with lack of definitive care or surgery (eg, Crush, TQ conversion)

5. Improved safety of Fresh Whole Blood Transfusion, advanced diagnostic or resuscitation techniques
Prolonged Field Care Capabilities

- 10 Capabilities:
  - Monitor the patient
  - Resuscitate the patient
  - Ventilate/oxygenate
  - Maintain an airway
  - Sedation/pain control
  - Physical Exam/diagnostic measures
  - Provide nursing/hygiene/comfort measures
  - Perform advanced surgical interventions
  - Telemedicine
  - Prepare the patient for flight

TCCC (“Ruck”)

CASEVAC (“Truck”)

PATIENT HOLD (“House”)

MEDEVAC (“Plane”)

Photo By: Kyle J. O. Olson
There are three main jobs for military working dogs: detection, patrol, and tactical.
1. Exposure to Environmental Extremes
2. Sensory Optimization and Protection
3. Trauma Resuscitation
4. Non-Traditional Anesthesia Protocols
5. Optimization of Canine Performance & Nutrition
6. Pre & Post Trauma Training / Behavioral Issues
Questions?

For additional questions specific to USSOCOM after the conclusion of the conference, send an email message to:

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