Highlights from the Committee on Surgical Combat Casualty Care (CoSCCC) Meeting

27-28 March 2024 San Antonio, Texas

Working in the Dark Space - Preparing Capabilities for the Unknown

World War II (WWII), 20 years of counter insurgency operations (COIN), and current wars in Ukraine and Israel were discussed. The future battlespace and Large-Scale Combat Operations (LSCO) will be unpredictable and likely characterized by a number of casualties not seen since WWII. Learning from these wars while simultaneously preparing capabilities for the unknown was the theme for 2024 Spring meeting.

1. **THE CAREGIVERS AND EQUIPMENT** that make up a military surgical capability are a limited resource**.** They represent a unique and very small fraction of the global surgical community. Planning for LSCO should take this limitation factor into account.
2. **INCREASING ADAPTABILITY AND FLEXIBILITY** across the care continuum, **particularly in Role 1 (R1) and Role 2 (R2)** capabilities will be critical to saving lives in the future battle space. *The trauma system must be agile, adaptive and data driven.*
3. **ROLE 1 RECOMMENDATIONS**: During COIN, R1 medical capabilities such as battalion aid stations and shipboard medical departments have focused on preventative medicine and primary care. Examples of current operations were discussed where patients requiring surgery could not be transported to a doctrinal R2. However, a small surgical team could be temporarily brought to patients at a R1. But only for the surgical procedure(s). *Role 1 must be able to have a hold capacity.*
   a. Preparing R1 platforms for small surgeon team augmentation should be a priority.
   b. Early Fresh Whole Blood (FWB) saves lives. There is an urgent need for standardization of pre-conflict transfusion protocols and novel approaches to increase FWB and freeze-dried plasma availability across R1/R2 platforms.
   c. R1 capabilities should have FWB (stored and walking blood bank) regardless of R2 augmentation.
   d. R1 equipment sets must be ready for surgical team augmentation. A review of R1 equipment sets in the context of supporting austere single surgeon teams is recommended.
   e. R1 capabilities should prepare to perform perioperative care without the surgical team. A review of R1 doctrine and training paradigms is recommended to prepare for this contingency.
   f. There is a procedural training gap in R1 military licensed independent providers (physicians, physicians assistants, enlisted independent caregivers). Examples include ultrasound, vascular access, and resuscitation skills.
4. **ROLE 2 RECCOMENDATIONS**: A comprehensive Tri-Service review of small surgical teams (SST) capabilities was performed.
   a. All SST should be platform agnostic and prepared to provide resuscitative surgical care on any platform including R1, R2 and R3 platforms and all evacuation platforms in all domains including land in armored vehicles and rail; air on rotary and fixed wing platforms; above and below the sea in R1 capable submarines and warships.
   b. A standardized joint R2 training is needed to prepare for the unknown future battlespace: The CoSCCC and Joint Trauma System have developed this joint curriculum which was approved by the CoSCCC in February 2024. Developing and funding a joint training course is the next step. *A Joint ARSC R2 training standard is an MHS gap.*
5. **GLOBAL HEALTH ENGAGMENT (GHE) & TRAUMA SYSTEMS** support the warfighter. The Military Health System (MHS) role in GHE and developing a Globally Integrated Trauma System as part of Integrated Deterrence were discussed.
   a. DoD surgical capabilities should be used as part of GHE in support of Phase ZERO shaping operations to build partner nation capability, enhance capacity, and support interoperability through a globally integrated system.
   b. A Globally integrated trauma system employing ally and partner capability through mutual investment mitigates joint medical estimate risks, enhances interoperability, and supports Combatant Command theater campaign plans.
6. **ONGOING AND NEW WORK PRODUCTS AND LINES OF EFFORT (LOE)**
   a. Ongoing: *Orthopedic Surgery Capabilities Statement* was reviewed, and committee vote forthcoming.
   b. Ongoing: *Defining the R1 Caregiver Procedural Training Gap*: final recommendations pending.
   c. Ongoing *R2 Critical Care Capabilities Gap Update*: include personnel, equipment, organ support capabilities, and the possible need for at critical care augmentation team capability for LSCO. A review article is pending.
   d. New: *R2 SST statement on increasing adaptability and flexibility to save lives on the future battlefield*.
   e. New: The CoSCCC will develop a *Top 10 Research Priorities for Surgical Combat Casualty Care for 2025*.
   f. New: The CoSCCC will sponsor *two surgical residents from each Service at future CoSCCC meetings*.
7. **REPRESENTING THE MILITARY HEALTH SYSTEM:** The meeting concluded by emphasizing the importance of discussing MHS challenges, working pro-actively to provide actionable solutions while simultaneously representing the MHS brand. Wearing the uniform, representing the MHS surgical community and supporting the warfighter and operational units is an honor and privilege – IT IS OUR PURPOSE. We are the Military Health System.

The Joint Trauma System and the Defense Committees on Trauma – *Saving Lives with Data*.

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