

# COERCCC Meeting

21-22 May 2019

San Antonio, TX

Meeting Minutes Prepared by:

Mr. Dominick Sestito/ Mr. Thomas Rich

## 21 May 2019

1. **Admin Remarks and Introductions (COL Cord Cunningham):** COL Cunningham, Chair of the Committee on En Route Combat Casualty Care (CoERCCC), convened the meeting and welcomed meeting participants. COL Cunningham briefly reviewed the meeting's agenda and introduced Mr. Tom Rich. Mr. Rich is taking over as the CoERCCC Program Manager from Mr. Dominick Sestito. Mr. Sestito discussed critical issues, transportation and logistical information for participants. All participant introductions followed.
2. **Subcommittees Breakouts:** Each Subcommittee broke out for 30 min sync and alignment of future deliverables. Subcommittee leads briefed the Committee on "Hot Topics" they were working on (Detailed out brief on 22 May).
3. **Deployed OIR MEDEVAC Presentation (SSG Eastman):** SSG Eastman gave a presentation on his experience as a deployed Army MEDEVAC member. During this deployment SSG Eastman faced many challenges in the remote region he was tasked with providing coverage for. Due to the delayed evac times there was a discussion of how this could jump back and forth from prolonged field care to ERCCC.
  - 3.1. He credited his ability to adapt to the changing level of resources he had to the extensive hands on sustainment training he received.
  - 3.2. Take away: Need for sustainment Training!
4. **JTS Director's Perspective/ JTS under DHA Update (Col Shackelford/MSG Remley):**
  - 4.1. Discussed the difference between "busy people" and "productive people" in respect to the transition to DHA, NDAA language and the deliverables of the committees and the JTS as a whole.
  - 4.2. JTS mission and structure, Combatant Command (CCMD) support capabilities, and standardizing trauma curriculum. Alignment and structure under DHA and inclusion of DMRTi under the JTETD and their roles within the DHA AD CS.
  - 4.3. Col Shackelford then discussed the survey sent to all Voting Members and the results for the Top 10 current Battlefield Issues:

### Top 10 CURRENT Battlefield Issues (Preliminary):

1. Improve capability and capacity for Whole Blood transfusion throughout the continuum.
2. Improve ways to sustain trauma skills.
3. Recruit and retain medical personnel to support operations.
4. Facilitate documentation and data collection.
5. Standardize trauma care training across the Services.
6. Facilitate interoperability and standardization of devices for patient movement items (monitors and materiel products) throughout the continuum.
7. Standardize joint evacuation platforms and communication plans.
8. Optimal number, mix, and training of personnel for variety of missions/scenarios.
9. Improve capability and capacity for FDP transfusion throughout the continuum.
10. Relationship between time to definitive care and outcomes - validating and clarifying the "golden hour" concept.

4.4. MSG Remley concluded with discussion of the TCCC Tiers 1-4, CURRICULUM DESIGN APPROACH and the JTS standards for Training and Curriculum Development.

**5. Deployed ERCC experience in Australia (CAPT Joshua Tobin):** Dr. Tobin gave a briefing on several case presentations focused on TBI, Intubation, prolonged field care and field treatments rendered. CAPT Tobin then discussed the use of Hypertonic NaCl vs Mannitol in literature review: What to do.

5.1. Discussion: International EMS experience. Focus was on airway management, needle decompression, intubation, pre-hospital provider, medical control, interventions, and functioning as a "pre-hospital intensivist."

5.2. CAPT Tobin's take away message was:

5.3. Critical Care...residency trained anesthesiology, EM, CCM... which is already occurring.

5.4. Nationally Registered Paramedics... to the civilian standard.

5.5. TRAIN TOGETHER!

**6. Austin/Travis County EMS Credentialing (Jason Pickett):** Deputy Medical Director; Austin/Travis County EMS System; Texas Ranger Division Special Operations Group who was integral in establishing and sustaining one of the most successful Paramedic programs in the Nation.

6.1. Dr Pickett opened with a discussion on credentialing levels and identified gaps:

6.1.1. Experience

6.1.2. Extra practice

- 6.1.3. Utilization
- 6.1.4. Skill verification
- 6.1.5. Team dynamics
- 6.1.6. Trainer shortage

6.2. Additional Issues:

- 6.2.1. Little means of comparing experience across the system
- 6.2.2. No way of recognizing extra skill practice from education/training
- 6.2.3. Paramedics who join EMS are stuck doing BLS during civil service time, 1-2 years
- 6.2.4. Medic II attends most patients
- 6.2.5. Skill verification rarely identifies shortfalls in knowledge
- 6.2.6. MOC does not recognize or provide feedback on team dynamics
- 6.2.7. Shortage of qualified trainers within system

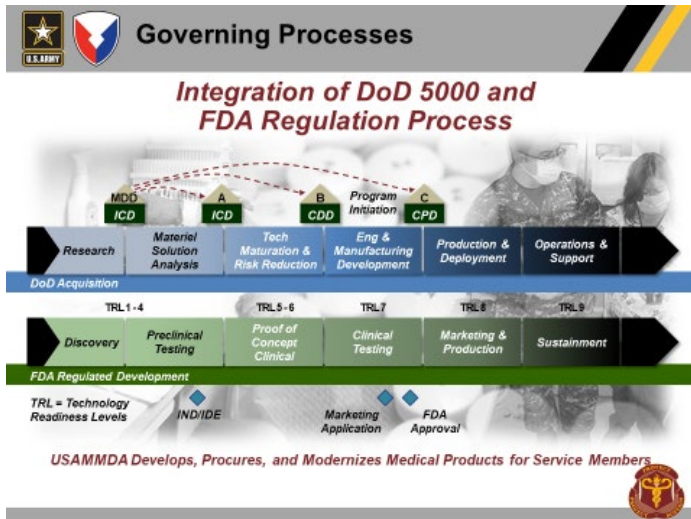
6.3. Take-aways:

- 6.3.1. Trainers are the lifeblood of this organization
- 6.3.2. Some are naturally good at training but everyone can learn new tips and tricks
- 6.3.3. Academy process to convey teaching skills and ability to “diagnose the learner”
- 6.3.4. Separate “endorsement” of clinical credential
- 6.3.5. CTO can train at their level and below

**7. CPG format and Discussion (CAPT(sel) Walrath):** CAPT(sel) Walrath gave a brief presentation on CPG writing, development, and timeline for execution and publication. The already established CPG outlining the process for creating new CPG’s was referenced and the basis for discussion.

**8. Medical Product Development and Acquisition (Kathy Berst/ Dr. Tyler Bennett):** Opened with a discussion of the Mission and Vision of USAMMDA. Outlined the process from start to finish for fielding new items through Requirements, Research, Knowledge Translation, Key External Partnerships, Development and Acquisition and final end users, coordinating fielding to over 2200 Army units.

8.1. Discussed the path of DoD Acquisition and FDA regulated development.



8.2. Items in Purple are currently executed by DHP funds

**USAMMDA Medical Product Development and Acquisition Portfolio**

MDD	A	B	C	FRP
Materiel Solution Analysis	Technology Maturation & Risk Reduction	Engineering & Manufacturing Development	Production & Deployment	Operations & Support
<ul style="list-style-type: none"> <li>Burn Treatment Skin Repair – Burn Conversion Prevention</li> <li>Burn Treatment Skin Repair – Burn Wound Scarring Treatment</li> <li>Extremity Injury Repair – Bone</li> <li>Extremity Injury Repair – Muscle</li> <li>Extremity Injury Repair – Nerve</li> <li>Non-Invasive Neuro-Assessment Devices</li> <li>Traumatic Brain Injury Point of Injury Triage Device</li> </ul> <p>Programs in purple = Army executing DHP funds. Milestone Decision Authority is the Defense Health Agency Component Acquisition Executive</p>	<ul style="list-style-type: none"> <li>Battlefield Pain Management – Ketamine</li> <li>Burn Treatment Skin Repair – Functional Skin Regeneration</li> <li>Cold Stored Platelets</li> <li>Extracorporeal Life Support (Lung/Renal)</li> <li>Extremity Injury Repair – Vascular</li> <li>Hemorrhage Detection</li> <li>Human Immunodeficiency Virus Vaccine – Block 2</li> <li>Next Generation Diagnostic System Infectious Disease Panel</li> <li>Noncompressible Hemorrhage Control Agent</li> <li>Pharmaceutical Intervention for Noise-Induced Hearing Loss - Acute Exposure Treatment</li> <li>Post Traumatic Stress Disorder – Drug Treatment</li> <li>Rapid Human Diagnostic Devices</li> <li>Temporary Corneal Repair</li> <li>Traumatic Brain Injury - Drug Treatment</li> </ul>	<ul style="list-style-type: none"> <li>Cryopreserved Platelets</li> <li>Dengue Tetravalent Vaccine (Block 1)</li> <li>Freeze Dried Plasma</li> <li>Human Immunodeficiency Virus Vaccine (Block 1)</li> <li>Intrathoracic Pressure Regulation Therapy</li> <li>Laboratory Assay for Traumatic Brain Injury – Benchtop</li> <li>Laboratory Assay for Traumatic Brain Injury – Point of Care</li> <li>Malaria Treatment Drug – Intravenous Artesunate</li> <li>Portable Neuromodulation Stimulator</li> <li>Transport Telemedicine System</li> <li>Whole Blood Pathogen Reduction Device</li> <li>Battlefield Pain Management - Sulfentanil</li> </ul>	<ul style="list-style-type: none"> <li>Battlefield Pain Management – Sulfentanil – Nano Tabs</li> <li>Chemical Patient Protective Wrap Modernization</li> <li>Environmental Sentinel Biomonitor</li> <li>Malaria Prophylactic Drug - Tafenoquine</li> </ul> <p><b>Programs Supporting Other Program Executive Offices (PEO)</b></p> <ul style="list-style-type: none"> <li>Armored Multipurpose Vehicle Ambulance &amp; Treatment Mission Essential Packages (PEO GC&amp;S)</li> <li>Casualty Evacuation for Military Vehicles (PEO CS &amp; CSS)</li> <li>Future Vertical Lift (PEO Aviation)</li> <li>Health Readiness and Performance System (PEO Soldier)</li> <li>Improved First Aid Kit (PEO Soldier)</li> <li>Modernized Rigid Wall Surgical Shelter (PEO CS &amp; CSS)</li> <li>Next Generation Uniform Repellent Application (PEO Soldier)</li> <li>Soldier Optimization Decision Aids (PEO Soldier)</li> <li>Temper Air Supported Shelter (PEO CS &amp; CSS)</li> </ul> <p><b>Congressional Special Interest</b></p> <ul style="list-style-type: none"> <li>Enhanced Rotary Wing Medical Kit</li> <li>Standardized Vehicle Medical Kit</li> </ul>	<ul style="list-style-type: none"> <li>Adenovirus Vaccine</li> <li>Leishmania Rapid Diagnostic Device</li> <li>Over 200 LfNs embedded in 140 medical assemblages</li> </ul>

8.3. Mrs. Berst and Dr. Bennett gave some examples of products currently undergoing modernization, as well as products in development. Like USAMMA and USAMMRA, JPEO-CBD works through the JCIDS process to document the Services need. As a Joint office, the Joint Requirements Office serves as the interface with the Army, Navy, USMC, and AF to prioritize Joint requirements. JPEO-CBD works across the Chem Bio enterprise AND seeks innovative solutions from other federal departments/agencies using technologies that could address CBRN capability gaps.

**End Goal: FDA approved, safe, effective, militarily relevant, affordable, and sustainable fielded product.**

- 9. Subcommittee Break out Session:** Mr. Rich briefed each Subcommittee on additional resources now available with a full time Program Manager:
- 9.1. Telecon coordination
  - 9.2. Digital project common space working area
  - 9.3. Need for specific POCs with estimated timelines for each main line of effort
  - 9.4. Coordinated additional support as needed

**22 May 2019**

- 1. Administrative Remarks (COL Cord Cunningham):** COL Cunningham, the Chair of the Committee on En Route Combat Casualty Care (CoERCCC), convened the meeting. COL Cunningham briefly reviewed the meeting's agenda for the day.
- 2. Deployed Medic Presentation (SFC Zach Andrews):** SFC Andrews briefed the group on his experience with the SOF SORT. Member was in a classified austere environment. He was required to adapt and overcome many obstacles with minimal assets, limited transport or resupply. He was required to abide by SOFA agreement regulations restricting his ability to render care. His greatest asset was the extensive pre-deployment training he received.
  - 2.1. Identified knowledge and management deficiencies with regards to medical critical care patients and ABG/VBG/iStat interpretation with a very ill cerebral malaria case. His clinical experience was very self-driven and a model for other enlisted providers to attain.
- 3. Senior Leader Remarks (Major General Payne):** Maj Gen Payne opened by stating we needed to "Market" DHA transition.
  - 3.1. Need to adopt a marketing stage informing the enterprise on the Org structure of CS
  - 3.2. He moved on to state we needed to standardize MedLog (Role 3) request from the Services
  - 3.3. We needed to focus on making requests more service specific and decrease the number of requests for POI specific
  - 3.4. The importance of MERCURY data base was discussed, and the way forward
  - 3.5. Maj Gen Payne then transitioned to the inception of DMRTi under the JTET and JTS

- 3.6. How there is a drive to partner with National EMT to mirror American College of Surgeons
- 3.7. He then transitioned into the Electronic Health Record (EHR), MHS Genesis and the Tech transfer to help standardize care and the movement to a single enterprise. This will be done by identifying “Operational Champions”
- 3.8. Maj Gen Payne then opened the floor for comments and discussion. Majority of the discussion focused around the mission to support CCMD’s

**4. Pacific Fleet Perspective (HMCM Davis/HMCM Craig):** HMCM Davis outlined the INDOPACOM Command Structure. The fleets are usually subordinate to the naval component of the COCOM. This is how we fight wars. Orders come down from the President and SECDEF, and are passed down through units. Also important is that other fleets may not have ships.

- 4.1. On any given day in Third Fleet Area of Operations (AO) we have 22 ships and submarines and 5 USCG Cutters underway.
- 4.2. These underway units would be the first to respond to Maritime Homeland Defense tasking. We have also formalized assignment of specific units to be on an alert status if required to provide additional forces.
- 4.3. Over the past year we have deployed 4 of 5 Carrier Strike Groups and 2 of 3 Expeditionary Strike Groups in support of GWOT, into the Seventh Fleet AOR in the Western Pacific and Fifth Fleet AOR in the Indian Ocean and Arabian Gulf as deterrence to conflicts...piracy.
- 4.4. But no longer can a Fleet Commander solely focus on Blue water battlespace. We must also consider the water close to our land where 90% of the World’s commerce moves. The Maritime Domain, by definition, includes the oceans, sea, bays, estuaries, islands, coastal areas, and the airspace above these, AND the littorals.
- 4.5. Key Points:
  - 4.5.1. Our area of operations (AO) is half the earth’s surface, stretching from India to the West Coast of the United States.
  - 4.5.2. Contains 15 time zones
  - 4.5.3. Home to the three largest economies in the world (U.S., China, Japan)
  - 4.5.4. Contains the world’s six largest military forces (PRC, Russia, India, North Korea, South Korea, and U.S.).

- 4.5.5. Roughly half of the world's population and an area of evolving political, diplomatic and economic ties, rapid modernization and military expansion and five mutual defense treaty Allies with the U.S. (Japan, South Korea, Philippines, Thailand and Australia).

#### 4.6. Bottom Line:

- 4.6.1. To be effective, we must have context that includes an understanding of the region's historical record in order to frame not only "what" is taking place, but the "why" as well.
- 4.6.2. From an economic perspective, maintaining free flow of commerce through strategic waterways is critically important, as I have discussed. Linked to this economic imperative is the growing number of maritime boundary and resource disputes which lead to instability in the region.

#### 4.7. Major Concerns:

- 4.7.1. The joint force may have little or no Indications & Warning of attacks
- 4.7.2. U.S. forces on allied territory and supporting forces will be attacked
- 4.7.3. All domains will be contested: air, maritime, space, cyber, land
- 4.7.4. U.S. forces will be distributed and disaggregated
- 4.7.5. Mobile health service support will be required
- 4.7.6. Limited or no communication within the NEHSS

#### 4.8. Key Capabilities

- 4.8.1. Fleet Surgical Team (FST)
- 4.8.2. Expeditionary Resuscitative Surgical System (ERSS)
- 4.8.3. Casualty Receiving Treatment Ship (CRTS) augmentation
- 4.8.4. Naval Hospital Augmentation

### **5. DA4700 Revision Project (Bruce Tarpey/1SG Coughlin):**

#### History:

- 5.1. March 2014, the Joint Trauma System (JTS) developed and instituted DA 4700 "JTS TACEVAC AAR & PCR" to improve data collection while promoting a standard form for ALL rotary wing evacuations.
- 5.2. The JTS deployed the DA Form 4700 into Afghanistan in mid Jun 2014, and received its first report on the new form on 2 Jul 2014.
- 5.3. Platform type, Personal Protection Equipment (PPE), and capturing Sustainment/Improvements have been some of the smaller tweaks to the current DA Form 4700.

5.4. JTS Performance Improvement (PI) identified gaps with the current form in blood products, medications list, lab values and a revision to PPE.

5.5. End users report the following gaps:

- 5.5.1. Lack of knowledge of requirement to complete documentation following a evacuation
- 5.5.2. Lack of knowledge on how to properly fill out
- 5.5.3. Lack of fidelity of patient care documentation due to limited space/options on the form
- 5.5.4. Disorganized flow
- 5.5.5. Difficulty to utilize during evacuation event

5.6. Revision:

- 5.6.1. Draft update to DA 4700 developed in concert between SME's from JTS PI staff, Enroute Care providers, and Physician Medical Directors.
- 5.6.2. Draft version was staffed to over 100 Enroute care professionals/leaders from all services with request to staff to their subordinates
- 5.6.3. Staffed for 45-day period
- 5.6.4. Beta testing conducted by Critical Care Flight Paramedic students at USASAM during simulation training

5.7. Revision Feedback:

- 5.7.1. Despite being seen by well over 250 Enroute care providers, feedback was extremely limited (10-15 responses)
- 5.7.2. A large amount of feedback was admin notes

5.8. Good supportive feedback for some sections.

5.9. Areas of dissent included:

- 5.9.1. Redundant identification of injury locations
- 5.9.2. Addition of route needed for medications
- 5.9.3. Need for increased fidelity of vital signs documentation (anesthesia/trending style was generally disliked)
- 5.9.4. Narrative portion too small
- 5.9.5. Desire for system backed ePCR form instead of fillable PDF
- 5.9.6. Disorganized flow
- 5.9.7. Drop down menus desired over check boxes

5.10. Way Ahead:

- 5.10.1. Refinement of DA 4700 still required



#### 5.10.2. Additional staffing and Beta-testing recommended

5.11. End goal is to make document a DD Form, however, refinement of the product and service concurrence needed prior to pursuing

### **6. Research Top 10 Publication and the Acquisition Process (Mr. George Hildebrandt):**

Mr. Hildebrandt opened the discussion with “Game Plan” for the completion Top 10 Research Priorities. Identification of Capability Gap for each item was documented. A functional objective was stated and an end-state goal was developed for each of the ten items. The tasks will be taken to the Research Sub-committee for lines of effort. He also provided a summary overview of the acquisition process as it impacted the CoERCCC efforts

### **7. Sub-Committee Round-up and Deliverables Presentations:**

#### **7.1. Policy and Doctrine (Col Mark D. Ervin):**

***BLUF: We need to come to an agreement on the terms. Potentially inside the ERCCC first then look to shape the formal definitions in the JP 4-02 and the Joint Lexicon on Trauma.***

7.1.1. ERCCC Mission statement was presented with some initial discussion on possible verbiage change.

7.1.1.1. “The mission of the Committee on En Route Combat Casualty Care of the Joint Trauma System (JTS) is to provide evidence-based service and platform agnostic recommendations relating to all aspects of en route trauma care and casualty evacuation to improve outcomes, to drive the morbidity and mortality impact of patient movement to the lowest possible levels, and to provide evidence-based process improvement of trauma and combat casualty care during all phases of patient movement.”

7.1.1.2. After discussion it was decided to put the verbiage out for a full committee vote. Mr. Rich will get the electronic vote out to the committee NLT 7 Jun.

7.1.2. Next topic covered was potential clarification of what is currently defined as CASEVAC, MEDEAC, and TACEVAC.

7.1.3. Recommended Changes to Current Operational Lexicon to include appropriate JP4-02 staffing if adopted:

7.1.3.1. Casualty Evacuation (CASEVAC): The movement of casualties on platforms without appropriately trained ERC personnel or equipment to provide en route medical care.

- 7.1.3.2. Medical Evacuation (MEDEVAC): The movement of casualties aboard available and suitable platforms staffed with appropriately trained ERC personnel and equipped to provide en route medical care.
  - 7.1.3.3. CASEVAC : Non-clinical Patient Movement capability
  - 7.1.3.4. Fairly contentious discussion to include how we shape the formal definitions in JP 4-02. It was mentioned that the JTS has the formal tasking to create and maintain the Joint Trauma Lexicon and that this would be a way to inject it once the committee agrees on a proposal.
- 7.1.4. Four new patient movement terms were introduced:
- 7.1.4.1. Standard Patient Movement: Patient movement of stable casualties requiring routine assessment/nursing care.
  - 7.1.4.2. Resuscitative Patient Movement: Patient movement requiring assessment of active hemorrhage, imminent airway compromise or other immediately life threatening condition that may require enroute initiation/performance of advanced airway placement, hemorrhage control, damage control resuscitation or invasive procedures.
  - 7.1.4.3. Critical Care Patient Movement: Patient movement requiring continuing assessment/treatment of hemodynamic status, cardiac function, pulmonary failure, intracranial pressure, electrolyte imbalances, vasoactive medication dosages or other critical care condition.
  - 7.1.4.4. Specialized Patient Movement: Critical Care patient movement requiring additional capability to continue specialized assessment/treatment of a single organ system failure or limited scope of medical conditions.
  - 7.1.4.5. Tables that included references to a 2-provider standard were included for discussion.
  - 7.1.4.6. Feedback from the committee was to remove the aircrew status references and asked the subcommittee to continue to work on the wording some.

## **7.2. Education and Training Committee (LCDR Erik Hardy(not present)/HMC Wayne Papalski):**

Wayne briefed that one of the main efforts was the need to redo the memo from House Affairs DHP memo on casualty requirements as listed in JRCOM 026-12 dated 27 Feb. 2012. It was also mentioned that we can't afford to leave the ground requirements out.

7.2.1. Second line of effort was to address component proficiencies focusing on Tier 4 requirements:

- 7.2.1.1. Pictures and Video to improve training
- 7.2.1.2. Packaging and loading
- 7.2.1.3. Hoisting

**7.3. CPG/Performance Improvement (CAPT(sel) Walrath):**

7.3.1. 11 CPGs from TRANSCOM for inputs

7.3.2. 44 for review for En Route Care considerations

7.3.3. Month Cycle to include PI

- 7.3.3.1. Month 1: Find lead / tm selections
- 7.3.3.2. Month 2-3: Write first draft
- 7.3.3.3. Month 4: Back to Sub -committee chair and PI markers
- 7.3.3.4. Month 5: Final Edits
- 7.3.3.5. Month 6: Out to whole committee for vote and publication once approved.

7.3.4. The Tri-Service Handbook was mentioned as a need for a quick reference.

7.3.5. Patient Packaging CPG – Capt. Parrot

7.3.6. Blood Transfusion (Pre-hospital) MSG Voller and PI team

7.3.7. Pushing for NLT publication of the CPGs August- Out for coordination to the committee late July

7.3.8. Ventilation management MSgt Whitmore NLT Nov 19

7.3.9. Behavioral Health CPG NLT Nov 19

**7.4. Products and Research Steering (COL Cap(not present)/Col Jennifer Hatzfeld(not present)/ Mr. George Hildebrandt):**

7.4.1. They plan on having a telecon every other month.

7.4.2. Need for development of TOs and technical objectives for Strat plans (JPC)

7.4.3. Need to reduce GAPS and duplication of efforts.

7.4.4. The subcommittees Top 10 Research Priorities are as follows:

- 7.4.4.1. Documentation

- 7.4.4.2. Hand-offs
- 7.4.4.3. Commander's Risk Assessment Tool
- 7.4.4.4. Maintain Normothermia
- 7.4.4.5. DCR/DCS Timing around Transport
- 7.4.4.6. Transport Physiology
- 7.4.4.7. Monitoring
- 7.4.4.8. Unmanned Transport
- 7.4.4.9. Intelligent Tasking
- 7.4.4.10. Clinical Decision Support

#### Development of Technical Objectives for Strategic Plan:

#### 7.4.5. Documentation

- 7.4.5.1. Ability to capture seamless data from patient.
- 7.4.5.2. Ability to forward (transmit) seamless data to selected receiving stations
- 7.4.5.3. Vital signs and other physiological parameters.(examples: BP, SPO2, HR, ETCO2)
- 7.4.5.4. Identify the physiological parameters that provide quality assurance data and next care provider indicators for triage and treatment.
- 7.4.5.5. Proximity of when intervention versus documentation. (Documentation that "time stamps" when interventions are completed)
- 7.4.5.6. Research, how much physiological information (at time of injury through the continuum of care) to show genesis of outcome.

#### 7.4.6. Hand-offs

- 7.4.6.1. Speed versus detailed (The "right" amount of information versus the "right" amount of time dedicated to verbal hand off)
- 7.4.6.2. What are the key components of the verbal hand off that are essential to having positive impact to quality of care for patient.
- 7.4.6.3. Ability to communicate between providers in austere environments (example: Rotor Noise = Headsets and mics)
- 7.4.6.4. Incorporate patient monitoring into patient handoff
- 7.4.6.5. Research, Patient safety is effected by switching outpatient care devices? Which devices have greater risk to patient during "change out"?

- 7.4.6.6. Research, Quality of patient handoff has direct impact to overall patient outcome.
- 7.4.7. Commander's Risk Assessment Tool
  - 7.4.7.1. Time to objective to surgical capability
  - 7.4.7.2. Level of providers available and proximity (POI, CCP, BN Aid Station and increased/decreased risk based on distance from patient)
  - 7.4.7.3. Mapping medical capability proximity (DCS/DCR, FRST, FH/CSH and how risk is increased or decreased based on distance/time)
- 7.4.8. Maintain Normothermia
  - 7.4.8.1. What is the best temperature for trauma patients
  - 7.4.8.2. What additional care requirements based on patients temperature (fluid/blood, medication, oxygen, etc. = more, less, same)
  - 7.4.8.3. What types of treatment devices are required (environments temp, patients temperature, required temperature = appropriate device/family of devices to reach required temperature)
  - 7.4.8.4. What methodology is needed to achieve normothermia (active cooling and heating)
- 7.4.9. DCR/DCS Timing around Transport
  - 7.4.9.1. How long do you wait before a patient is stable prior to transport?
  - 7.4.9.2. How long can they be transported before effects are seen? (TBI)
  - 7.4.9.3. When is the patient safe to move? Once safe, how long can they be transported for.
- 7.4.10. Transport Physiology
  - 7.4.10.1. How many G's can a patient tolerate?
  - 7.4.10.2. Injury based?
  - 7.4.10.3. How does the environment of the transport impact the patient?(altitude, temperature, hyperbaric, hypobaric, etc.)
  - 7.4.10.4. "Safe Ride Standards" for normal and abnormal physiology. (All domains)

#### 7.4.11. Monitoring

- 7.4.11.1. Size and weight
- 7.4.11.2. All ERC environment
- 7.4.11.3. Automated on and off
- 7.4.11.4. Multiple patients utilizing single EUD
- 7.4.11.5. MOSA
- 7.4.11.6. Ability to communicate and receive data from other patient care devices (ventilator, IV pump, interventions) “moberg” used by neuro patients.

#### 7.4.12. Unmanned Transport

- 7.4.12.1. Triage, Intelligent Tasking, transport physiology, commanders risk
- 7.4.12.2. Battlefield clearing versus MEDEVAC
- 7.4.12.3. Training and education on use and utilization of Commanders risk, Triage (DIME), and Evacuation Category

#### 7.4.13. Intelligent Tasking

- 7.4.13.1. Context sensitive triage guidance
- 7.4.13.2. Tasking manager provided near real time patient data (real time as possible)
- 7.4.13.3. Tasking manager provided AI algorithms for probabilities.
- 7.4.13.4. What formats is information provided to manager/AI
- 7.4.13.5. Tied into the JMPT Kit.

#### 7.4.14. Clinical Decision Support

- 7.4.14.1. Develop evidence-based clinical decision support systems that reduce provider cognitive burden and increase providers effectiveness by 20%

### **Paper on top 10 research projects for ERCCC in development**

- 7.5. **Transfer of Care/Documentation (1SG Coughlin):** 1SG Coughlin discussed documentation and patient handoff.

7.5.1. Development of the 4700 is on track even with a lack of inputs from many asked to review.

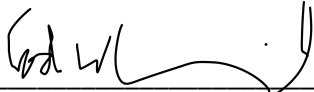
7.5.2. Need to develop a CPG to fill out the 4700

7.5.3. Patient packaging video

7.5.4. Ground medic prep to hand over patients

7.5.5. Transfer video

7.5.6. How to document video to include 4700 and 1380



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COL Cord Cunningham, USA  
Chair, Committee on EnRoute Combat casualty Care

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COL Jennifer Gurney, USA  
Chair, Defense Committees on Trauma

## Enclosure (1) – Meeting Attendance

### **CoERCCC Voting Members:**

COL Cord Cunningham  
COL Jennifer Gurney  
Col Mark Ervin  
CAPT Benjamin Walrath  
LtCol Thomas Brockman  
LtCol Daniel Brown  
COL Steven Gaydos  
MAJ John Houk  
LTC Mark Jacques  
CAPT Christopher Lucas  
Maj Kevin Semelrath  
COL Rich Strilka  
CAPT Joshua Tobin  
LtCol Joseph Maddry  
MSgt Shawn Anderson  
Maj Shane Runyon  
TSgt Jerediah Fontanos  
MSG Kristopher Hale  
CDR Joseph Kotora  
HMC Richard Odell  
LTC Colin Frament  
MAJ Donald Keen  
MSG Jared Voller  
SSG Jamie Eastman  
LTC Theodore Redman  
SSgt Caleb Washburn  
CAPT Justice Parrot  
HMC Wayne Papalski  
SFC Joseph Buatti  
COL Scott Calder  
1SG Matthew Harmon  
SFC Joseph Hernandez  
Mr. George Hildebrandt  
SFC Bjoern Pietrzyk (Deployed)  
SFC Joseph Hernandez  
HM1 Michael Chernenko  
LT Dana Fliegler  
HM1 Richmond Roy  
MSG Branden Coughlin

### **JTS Staff:**

Col Stacy Shackelford  
Dr. Mary Ann Spott  
Harold Montgomery  
Dr. Judson Janak



Dr. Frank Butler  
Dr. Russ Kotwal  
MSG Mike Remley  
Mr. Dominick Sestito  
Mr. Dallas Burelison  
Mr. Tom Rich  
Nikki Selby  
Bruce Tarpey  
Matthew Adams  
Darin Schwartz  
Robert West  
Brian Gerlt  
CDR Jacob Glaser  
Bill Orr  
Liz Mann-Salinas

**VIP Guests/Presenters:**

**Maj Gen Payne**

Tamara Averettbrauer  
Mr. Dario Rodriguez  
Lt Col Vikhyat Bebartta  
Col Michael Davis  
SFC Paul Loos  
Maj Patricia Hodson  
Maj Cubby Gardner  
Kathy Berst  
Dr Tyler Bennett  
Paul Allen  
HMCM Nikki Craig  
HMCM Alberia Davis  
Joshua Pickett  
LtCol Chris Cieurzo  
LTC Joleen Pangelinan  
SFC Zach Andrews  
SMSGT Britton Adams  
Mr Rick Caldwell