COSCCC Meeting
15-16 May 2017
San Antonio, TX

Meeting Minutes

5 July 2017

Ms. Brianna Premdas

15 May 2017

1). Admin Remarks and Introductions (Col Stacy Shackelford): Col Shackelford, the Chair of the Committee on Surgical Combat Casualty Care (CoSCCC), convened the meeting and welcomed meeting participants. Col Shackelford briefly reviewed the meeting's agenda. Mr. Dominick Sestito discussed transportation and logistical information for participants.

2). Deployed Surgeon Presentation (MAJ Rich Lesperance): MAJ Lesperance discussed his experience as a deployed surgeon at 628th FST Camp Dahlke (formerly Shank) Afghanistan. Facilities were comfortable and well developed. Ghost teams were small, mobile contingency teams conceived in-theater to support SOTF-A ops outside of golden hour evacuation window. During the deployment, there were only three cases in 3 months all of which were host nation military which came with very restrictive rules of engagement. Of the three cases, 2 were wound washouts and 1 was a guillotine amputation on GHOST mission.

MAJ Lesperance went on a Contingency GHOST Mission which was approximately 3 weeks long. They gained plumbing and electricity after a week. There were no U.S. casualties but 2 host nation military members were wounded. During this time, resources were limited. One of the GHOST teams was set up in a fixed location of the country. The team was limited, space wise, but there was a nearby unmanned German forward surgical team. Chain of command denied the use of German equipment.

The pros of this mission are as follows:

- Favorably impressed with rank and file of FS team.
- Regularly rehearsed casualty flow, loading out for GHOST mission and setting up equipment.
- Good coordination between FOB and FST for all casualty incidents.

The cons of this mission are as follows:

- 10 general surgeons for contingency. Bad use of resources.
- No doctrine planning for GHOST missions. No surgeon training.
- Checking the box for the "Golden Hour Mandate" causes some absurd situations.
- GHOST underequipped for stated capability.
- Non-Surgeons don't understand trauma surgery.

The unresolved issues are as follows:

- Can a single surgeon do "adequate" DCS in a small space?
- Major torso hemorrhage is raison d'etre (liver, spleen).

3). Deployed Surgeon Presentation (Maj Mason Hunt): Maj Hunt came straight out of residency in a low traffic trauma center and became a member of the SOST team. SOST is a six man team with a modular loadout. They had the capability of 2 operative interventions and saw 2 critical care patients.

Prior to the deployment, the team was able to perform Spin-Up Training and mandatory Pre-deployment training. The Spin-up training was the initial operating training provided to those deploying. It included SERE training (6 weeks), Initial Operator training (3 weeks), Intro to Special Operations (7 days), CCATT Basic/Advanced (4 weeks), and SOST 101, 102 (2 weeks combined).

The Pre-deployment training that occurred annually included Tactical Combat Training (1 week), supervisory role in HAVEACE and other exercises, team work that included the mandated "Team Day" with weekly group PT and cross specialty education courses. Additional pre-deployment training included Weapons/Small Unit Tactics (SMUT) training (1 week), SOST 103 (1 week), Convoy/Heavy Weapons (1 week) and other USAF required training (CBTs, Active Shooter, immunizations, etc.).

Maj Hunt felt they had a fairly good deployment. The deployment was from mid-August 2016 through the beginning of January 2017. During this time, there was one aircraft bound operation with no casualties and 4 CCCP operations which included 416 trauma evaluations, 16 surgical interventions, 12 Mass Cal situations (largest with 18 patients) and 5 walking blood banks.

The lessons learned from this deployment were as follows:

- Hypothermia Management
- Be your own troubleshooter
- Organize your own equipment, keep up with current supplies and resupplies
- Trust your team, watch out for your team
- Develop redundancy plans
- Utilize local resources when possible
- Personal Stress Management/Resiliency

4). NDAA 708 – Trauma Education (Brig Gen Dienst): General Dienst gave a summary update on his perspective on where we are in NDAA activities. The way ahead for the Military Health System (MHS) is looking at establishing integrated a health system focused on health and readiness. The overall concept is to improve readiness by providing better care at a lower cost resulting in better health. In order to do this it is important to focus on requirements such as Increasing Access to and Continuity of Care for National Guard and Reserve Components and also restructuring the MHS Direct and Purchased Care Systems.

NDAA 2017 drives towards efficiencies, readiness and health benefit.

Some opportunities with NDAA 2017 are:

- Improving and Maintaining Operational Medical Force Readiness
- Creating Health Value
- Enhancing Access to High Quality Healthcare
- Improving Beneficiaries' Health Outcomes
- Demanding Performance Accountability
- Driving Efficiencies and Eliminating Waste
- Modernizing TRICARE Support Contracts

NDAA 2017 affords us the opportunity to do things we haven't been able to in the past. Sections 707, 708 focus on readiness. Section 721 covers military to civilian conversions and what that means to man power. The "Integrated Health Care Delivery System Line of Effort" chart displays the plan for the first two years of the Integrated POAM. As of now we only have 18 months to complete a lot of activities. It is important for us to make progress and communicate horizontally. Part of the reason we set up a program management office for the NDAA is to tie in conversation about how we take steps together.

5). JTS Directors Perspective (Col Stacy Shackelford): Col Shackelford discussed the DoDI 6040.47 effective 28 September 2016.

The purpose of the DoDI:

- Establishes policy, assigns responsibilities, and provides procedures to develop and maintain an enduring global trauma care capability that supports a full range of military operations, including a comprehensive DoD Trauma Registry (DoDTR).
- Establishes the Secretary of the Army as the Military Health System (MHS) Lead Agent for trauma care and recognizes the JTS as a DoD Center of Excellence (DCoE).
- Establishes an integrated Combatant Command (CCMD) Trauma System (CTS) modeled after the Joint Theater Trauma System (JTTS), and a requirement to input data into the DoDTR to support unique CCMD mission requirements.

A few months after the DoDI became effective; the NDAA (Sec 707-708) came out and mandated that we establish a Joint Trauma System within the Defense Health Agency (DHA). We will also establish a Joint Trauma Education and Training Directorate. The Joint Trauma System will also enter into partnerships with more civilian academic medical centers and teach hospitals and embed DoD trauma teams with the trauma centers of the medical centers on an enduring basis.

JTS has been participating in Capability Based Assessment (CBA) meetings which are policy setting meetings about problems and solutions. The three focuses for these meetings are Defense Trauma Enterprise (DTR), En Route Care (ERC) and the Forward Resuscitative Care (FRC).

JTS current Performance Improvement Projects focus on combat mortality analysis, prolonged field care CPG's, FTTF CPG metrics, new director's report, case files of the JTS and CCC Conference.

6). CENTCOM Trauma System (CAPT Darin K. Via): CAPT Via discussed what the U.S. Central Command's combatant command trauma system and recognizing its doctrinal and policy requirements. USCENTCOM includes 20 countries including Lebanon, Syria, Egypt, Jordan, Kuwait, Iraq Iran, etc.

USCENTCOMs Area of Responsibility (AOR) Characteristics are as follows:

- World's most energy-rich region
    - 64% of world's petroleum reserves
    - 46% of natural gas reserves
- Strategic choke points
    - Bab al Mandab
    - Suez Canal
    - Strait of Hormuz
- Religious, ethnic, and tribal tensions
- Youth Bulge
    - 15-29 age group constitutes over 40% of the population in 18 of 20 states

- Inadequate economic development, insufficient basic services, and poor governance
- The most kinetic GCC in the last 50 years

USCENTCOM's vision is to see a more stable and prosperous region with increasingly effective governance, improved security, and trans-regional cooperation to counter state and non-state actor posing a threat to U.S. interest. The mission states that USCENTCOM directs and enables military operations and activities with allies and partners to increase regional security and stability in support of enduring U.S. interests.

The current USCENTCOM priorities are to ensure effective posture, strengthen allies & partners, deter & counter state aggressors, and to disrupt/counter VEOs & their networks.

The Theater Health Support Objectives (THSO) are as follows:

THSO-1: Enable, sustain, and optimize theater force HSS

Effects:

- Ready medical forces are employed
- Medically ready forces are employed
- High Quality HSS of the RIGHT scope is delivered

THSO-2: Prepare the theater medically for future contingency operations.

Effects:

- Military forces are resourced and postured to meet future contingency requirements.
- Partner Nation (PN) Forces are capable of medically supporting multi-lateral operations. Mitigate contingency requirements via leveraging access to HN support

THSO-3: Coordinate SCPA to develop and sustain medically resilient and inter operable regional partners.

Effects:

- Regional partners with resilient HSS systems are developed.

CCR 40-7 Clinical Operations Program (6 MAR 17)

- Establishes theater entry medical training requirements
- Monitors medical documentation on patients dx w/ concussion/TBI
- Mandates use of JTS CPGs, CCOPs and TCCC guidelines
- Identifies JTS as the entity providing support and oversight of
    - Trauma care delivery
    - DoD Trauma Registry documentation 3
    - Combat Casualty performance improvement/education
- Establishment and scaling of the CTS with the CENTCOM AOR

Current State:

- CCSG designates regional CTS director(s) as required
- Lead Role 3 senior trauma surgeon designated during low intensity operations
- Lt Col Zakaluzny (OIR) and Maj Plackett (OFS) current regional Trauma Czars with authorities derived via CCF 40-7 and TF-MED CDR Authorities over Role 2-3 units in theater

Potential Gaps:

- Capacity to monitor, no capacity to mitigate QA issues if onsite remediation required

- Requirement for high intensity conflict or O-Plan support

Future Options:

- TAD of JTS SMEs
- RFF CTS staff (JTTS JMD)
- Develop UIC within DHA for deployable CTS augmentation. Allows placement on TPFDD

7). SOF Surgical Support (COL Ric Ong): COL Ong discussed Special Operations Forces (SOF) Forward Resuscitation Surgical Teams (FRST) Civilian Trauma Center Pilot Program and how forces are utilized and where are they located. The vision of the SOF FRST is to provide far forward surgical capabilities on the battlefield for the Special Operations enterprise and set the standard for DoD austere surgical teams.

Military Treatment Facilities (MTF) In-Garrison Care and Forward Deployed Care combine to make Acute Medical Care and Acute Surgical Care. The concept and vision is that Special Operations Forward Resuscitative Surgical Teams who are experts in trauma care and provide far forward surgical capabilities on the battlefield for the Special Operations enterprise, set the standard for DoD austere surgical teams.

The required team members per team consists of a general surgeon (trauma fellowship), orthopedic surgeon, emergency medicine physician, certified register nurse anesthetist, and a critical care nurse. The team members are to be stationed at the trauma center where they will participate in 6 months of military training and deployments distributed over an 18 month cycle. At least two teams will be collocated at the trauma center to maintain constant presence. Determining the "best fit" trauma center is completed by assessing high volume of high-quality trauma, its ability to operate as a team, and administrative and logistical support.

The current efforts are to begin site pre-assessments and collaborative planning with the Office of the Surgeon General (OTSG) and United States Army Special Operations Command (USASOC). Future efforts include completing subsequent combined site assessments with OTSG, USASOC and establishing Memoranda of Agreement between the OTSG and supporting level 1 trauma center(s). Supporting documents required for this are Army Special Operations Forces 202 planning guidance, National Defense Authorization Act for Fiscal Year 2017 (H.R. 4909), and Mission Zero Act.

8). KSA update (CAPT Eric Elster): CAPT Elster discussed ensuring readiness for the Expeditionary Team. A problem that is faced is perishable skills. The current fragmented approach to expeditionary specialty skills training refinement and retention in the Military Health System (MHS) is not sufficient to maintain critical wartime combat casualty care skill sets. Pre-deployment training surveys, observations, insights, and lessons (OIL) indicate that clinical specific pre-deployment training provided to deploying personnel does not consistently and/or adequately prepare individuals to quickly assume their medical duties while deployed. (MEDCOM OPORD 17-17).

The Memorandum for Secretaries of the Military Departments states that the first priority is to expand and accelerate work on knowledge, skills and abilities for the deployable medical force to ensure that we are better positioned to measure and ensure the readiness of our medical staff for contingency operations.

Programs are needed to make sure we're ready and to ensure that our hospitals are real readiness platforms. The current approach to maintain readiness follows the following pathway:

1). Deploy

2). The Joint Trauma System captures Lessons Learned

3). CPGs and Service Training Affiliation Agreements are created

There is currently no requirement that people down range must use CPGs or are knowledgeable of them but training platforms and courses are available. We've developed 400 KSAs grouped into 8 domains such as wound & Amputation, Head & Spine Injury, Torso Trauma and so on. To assess the medical forces procedural skills, the

Part of a tiered approach to clinical skills:

Core clinical competence

Joint military medical skills

Joint essential KSAs

Service specific military medical skills

Four key elements: slide 10 Offsets: slide 10

9). CoERCCC Update (LTC Cord Cunningham): LTC Cunningham briefed the group on the subcommittees of the Committee on En Route Combat Casualty Care (CoERCCC).

Doctrine/Policy: Col Mark Ervin

- ERC Position Statement/TOR
- Provider Knowledge/Skills/Abilities(KSA's)

CPG/PI: CDR Ben Walrath

- Vampire/Vent CPG's/
- Mercury database

Education/Training: LCDR Erik Hardy

- Comparison CCATT, JECC, FPC, SAR Med Tech, etc.
- Overlap with recommended KSA's for level of providers/teams
- ERC CPG/Education App/Podcasts

Transfer of Care/Documentation: COL Kim Biever

- Standardization of hand off format (i.e. MIST vs SBAR)
- Review of DA4700 overprint for trauma resuscitation and handoff checklist

Research Steering: LTC (P) Andre Cap

- Journal watch(list serve and Podcasts)
- Physiologic monitoring/device review (CRI, REBOA, ECMO etc.)

10). CoSCCC Update (Col Stacy Shackelford): Col Shackelford briefed the committee on its current activities and deliverables. The year one deliverables for the subcommittees are as follows:

Clinical Guidelines Committee
- DOTMLPF analysis of CPGs
- Identify CPG gaps and updates needed

Research Committee
- Research Top 10 priorities
- Journal Watch

Operational Committee
- Optimal Resources for the Deployed Roles of Care

Education Committee
- Tri-Service expert consensus statement on trauma training
- Pre-deployment Joint care Curriculum

Austere surgical team committee
- Austere surgical team guidelines

The next topic of discussion was Trauma Training Lexicon Terms. Col Shackelford reviewed the three levels of lexicon and trauma training standards (proposed).

1). Pre-deployment verification of procedural skills:
During the period, all deploying surgeons will need to attend the existing Emergency War Surgery course within 6 months prior to deployment. Non-surgeon clinicians must attend a military trauma skills course (ex. Army Trauma Training Department, Navy Trauma Training Center, Air Force Center for Sustainment of Trauma and Readiness Skills, or similar intensive trauma skills course) within 1 year of deployment.

2). Periodic assessment of knowledge and abilities aligned with a relevant curriculum.

3). Development of a measurable "readiness" value of in-garrison practice

4). Appropriate remediation when indicated focused on identified deficits

Col Shackelford then ended her briefing by discuss the committee's voting issues. These issues consist of the mission statement, charter, logo, trauma training lexicon, and phased implementation of the specialty KSA project.

16 May 2017

1). Administrative Remarks (Col Stacy Shackelford): Col Shackelford, the Chair of the Committee on Surgical Combat Casualty Care (CoSCCC), convened the meeting. Col Shackelford briefly reviewed the meeting's agenda for the day.

2). Deployed surgeon's presentation (CDR Elliot M. Jessie): CDR Jessie gave a presentation over his experience during deployment. While deployed from September to March he completed 2 cases. One case was an EGD for food impaction and the other, a popliteal interposition, amputation, decompressive laparotomy. The expeditionary medical unit that he was deployed with consisted of 32 individuals. Three surgeons, orthopedic surgeon, two EM physicians, one internist, three CRNAs, two OR nurses, two ED nurses, two ICU nurses, one ward nurse, four surgical techs, an x-ray tech, an IT tech and nine corpsman.

Pre-deployment training consisted of a one day tent building session, followed by a couple of weeks of training at Ft. Bliss for shooting various weapons and to learn land navigation, how to clear homes for bombs and how to sweep for IEDs. Most training was not medical related. The next training was one week at the Navy trauma training center (NTTC) in California. While there, they received mass casualty training, participated in lectures and did rounds in a hospital. Finally, the last training was held for a couple weeks in Kuwait where they received ALTA training.

The group arrived to their deployment location in full kit and started building outside of the protective barrier. They were told that they would be very busy taking care of patients and found that not to be true. Continued to do mass casualty drills to sharpen skill sets. Went to nearby Iraqi military facility to offer assistance and found it only had one physician who was primary care. The team attempted to put a system in place with the host military and although it was towards the end of the tour, the system successfully carried over to next group.

Critical Thoughts:
1). Is pre-deployment training adequate?
2). Are our assets deployed in an efficient manner?
3). Should a Role II ultimately be responsible for patient disposition?
4). Who's in charge?

3). Zero Preventable Deaths (Dr. Charles Schwab): Dr. Schwab gave a presentation on Integrating Military and Civilian Trauma Care Systems to Achieve Zero Preventable Deaths after Injury. Military and civilian sectors must come together to improve the trauma society. Some of the concerns that arose were, are we teaching all the skills needed? As new skills were learned how were they incorporated? What were the military national training centers teaching? Why was the military losing the best leaders just as we needed them? Who owned the "readiness" mission of the Army, Navy and Air Force?

Action Points:
1). Expand and reframe the model of mil-civ TT platforms
2). Create a "new surgeon" with expanded skill sets

3). Elevate the JTS-DoD, DHA, Service Chiefs and civilian expert collaborate and expand and protect readiness.
4). Create a mil-civ "think tank" focused on readiness, SCCC, training, education and research

In the past it was found that most lessons learned were not documented which resulted in the inability to learn from one another and a significant number of preventable deaths. Currently, a military trauma system built on a learning system that has achieved unprecedented survival exists along with a motivated Trauma Workforce and dozens of civilian trauma systems that are well positioned to assimilate recent wartime trauma lessons and can serve as a catalyst for change and incubator for innovation.

"We have the opportunity to advance trauma care together by partnering the military and civilian trauma sectors, or not at all." – Berwick JAMA 2016

Col Shackelford and LTC Gurney had 5 topics that they requested that Dr. Schwab cover. The answers are summarized below.

1). Summarize the ZPD initiative and translate that into what JT can specifically do to support the initiative.

- Create the workforce

2). How can we facilitate expanding the number of civilian hospitals that allow military surgical teams to practice (what are the barriers on both sides?)

- Licensing, tort and liability and payment reform
- Model staffing, sustained billets, and assure integration at all levels

3). How can we facilitate MTF's becoming trauma centers and integrating with civilian trauma systems?

- Competition, cost coverage - $$ break even

4). What should an integrated system look like?

- Seamless, with 15 centers and several MTF-TCs

5). What do you see as the major short, near and long-term pitfalls to integrating the systems and the training platforms?

- Failure to prove their value

4). Enlisted Perspective –Air Force (SMSgt Noe Chavez): SMSgt Chavez briefed the group on his experience as an enlisted surgical technologist in the Air Force. One topic of discussion was manning and how it affects our readiness mission. Surgical Service Technicians are manned at over 100% while Urology, Orthopedic and ENT Technicians are undermanned. As a whole, technicians are manned at a rate of 92%.

SMSgt Chavez found that there are some gaps and discrepancies that affect the mission. Techs accompany surgeons to civilian hospitals but run into issues because Air Force Certification is not required as an OR tech but it is required in the civilian world limiting techs capabilities in that sector. Current ongoing initiatives include getting techs at least CST certification and ensuring participation in the Comprehensive Medical Readiness Program. New initiatives include implementing Association for the Advancement of Medical Instrumentation (AAMI) Standards on Kx, aligning all Phase II training sites to USAF Medical Training Guidance and transitioning from Mobile Field Surgical Teams (MFST) to Austere Surgical Teams (AST).

The challenges techs face is ensuring a high level of disinfection. There is currently no manning model for the Sterile Processing Departments, constant manpower turnover and no control tours for their OIC and NCOIC. Another challenge is AFSC training vs down range expectations. How do we get our surgical techs the proper training for what is being expected of them in a deployed environment?

5). Enlisted Perspective -Navy (HM1 Jeremiah Hays): HM1 Hays briefed the group on his experience as an enlisted surgical technologist in the Navy.

- Surgical Technologists (8483)– 817/884
  - E1-E3: 274/253 @ 108%
  - E4: 256/373 @ 69%
  - E5: 200/213 @ 94%
  - E6: 87/45 @ 193%
  - E7: NEC removed once selected

  Total Community Health: 92%

These community health numbers determine that there is a fleet wide issue regarding promotion and retention across the 8483 community. There's a failure to promote from E3 to E4 which reflects in the rate (69%). The Navy must focus on how to effectively use surgical techs. There are opportunities to obtain experience in all surgical services without attending specialty school which allows for growth. There are also career opportunities in administrative or leadership positions. The challenges that the Navy may face in the future are continued poor promotion rates with skewed manning levels and selection to CPO and long term retention may be affected by a lack of interest & availability in diverse assignments.

6). Enlisted Perspective -Army (SSG Arthur Buck): SSG Buck briefed the group on his experience as an enlisted surgical technologist in the Army. One topic of discussion was manning and how it affects our readiness mission. In all skill levels, manning is over 100% except for skill level 3 (SSG). Once a soldier reaches skill level 2, the following career opportunities are available to them:

- Drill Sergeant E-5, E-6
- Recruiter E-5, E-6
- Platoon Sergeant E-6, E-7
- Instructor/Writer E-6, E-7
- Detachment Sergeant E-7

  Once a soldier makes Skill 5/MSG/E-8, they will no longer be surgical techs.

Techs can be assigned to Community Hospitals (MEDDAC), Combat Support Hospitals (CSH), Forward Surgical Teams (FST), or Medical Centers (MEDCEN). When assigned to a MEDCEN, if there is no production for surgeons, there is none for techs.

Techs face challenges with promotions, retention, skills maintenance (FST & CSH), lack of trauma & specialty cases in smaller hospitals and a lack of experience from new graduated Surgical Technologist going to FSTs & CSHs.

7). Surgical Team Training Discussion (Group): The group held an open discussion over surgical team training.

8). Research Priority Update (LTC Martin Schreiber): Dr. Schreiber gave a report on the Research Subcommittee. Dr. Schreiber started his brief by identifying the committee's gaps and priorities.

1. Focus on clinically and operationally relevant topics that directly relate to patient care
2. NOT including operational durable equipment (oxygen, generators, etc.)
3. Organized primarily by phase of care from arrival/triage through prep for transport
   - Also including "special populations" & optimal staffing
4. NOT including external areas such as prehospital or en-route care
5. NOT including general readiness and pre-deployment training issues as these are active focus of other working groups

The group identified 8 clinical focus areas:

1. Triage
2. Initial evaluation (ED/ATLS)
3. Diagnostic imaging capabilities
4. Resuscitation and initial hemorrhage control
5. Pain/sedation/anxiety management
6. Operative management & surgical intervention
7. Postoperative & ICU care
8. Preparation for transport
9. Personnel number, mix, and capabilities
10. Special populations
    1. Pediatric
    2. Burns
    3. Women/Pregnant

The subcommittee created a list of potential research priorities under each focus area. After determining the focus areas, a list of all JTS CPGs was created and reviewed. Literature reviews were complete on TCCC and CCRP gaps/priorities. The group has currently completed their initial search & review, identified organizational scheme and focus areas, and created a list of initial topics/priorities. The way ahead is to have full subcommittee input to add to the list of topics/gaps for each focus area, create an online survey that will be sent to all CoSCCC members, rank order priorities in each topic area and score each one for degree of existing gap and potential impact.

For the final work product, members will score and compile the final list, create a list of the top 5 research priorities in each focus area, present it to the CoSCCC and potentially create a publication in the appropriate journal. The committee members will vote on top 3 articles and decide who the audience should be.

9). CoTCCC Update (Dr. Frank Butler): Dr. Butler, Chairman of CoTCCC, briefed the group on the Committee on Tactical Combat Casualty Care (CoTCCC) and their current activities. Pelvic Binders in TCCC have been approved. A pelvic binder should be applied for cases of suspected pelvic fracture, severe blunt force or blast injury with one or more of the following indications:

- Pelvic Pain
- Any major lower limb amputation or near amputation
- Physical exam findings suggestive of a pelvic fracture
- Unconsciousness
- Shock

During examination, pelvic fractures can be identified by pelvic pain, laceration or bruising at bony prominences of the pelvis ring, deformed or unstable pelvis, unequal leg length, scrotal, perineal or perianal bruising, blood at the urethral meatus, massive hematuria, blood in the rectum or vagina, and neurologic deficits in lower extremities.

Dr. Butler also discussed Monty's (Harold Montgomery) Megachange which was unanimously approved by CoTCCC 31 January 2017. The committee has also been working to enhance its social media presence by creating a mobile app set to become available Summer 2017 and by creating the TCCC Podcast which is currently available.

Also discussed was the TCCC Quick Reference Guide. This document will be provided to all TCCC students in PDF form. It contains TCCC Clinical Algorithms, abbreviated TCCC Guidelines, TCCC equipment list, DD 1380 and TCCC AAR, TCCC Evacuation Priority Recommendations, TCCC casualty planning chapter, and the TCCC Medication Reference Sheet.

10). Austere Surgery Update (COL Simon H. Telian): COL Telian briefed the group on Austere Surgical Care guidelines. Austere surgical groups work outside established evacuation routes, with short, defined time utilization. They support specific missions and area coverage is usually outside of the "Golden Hour".

COL Telian covered the Roles of Care and timeframes:

- CASEVAC (1 Hour) - Level I: BAS to Level II: Forward Surgical teams
- Tactical Evac (1-24 Hours) - Level II: Forward Surgical teams to Level III: CSH, EMEDS, Fleet
- Strategic Evac (24-72 Hours) - Level III: CSH, EMEDS, Fleet to Level IV: Definitive Care
  Level IV: Definitive Care to Level V: Definitive Care

In each austere surgical team (GHOST, ERSS, SOST, ERST, FRST and JMAU) there are 4-10 personnel. The basic unit for DCS is a surgeon, an anesthesiologist and two other personnel (surgeon/tech, nurse/PA, or ER/medic). Surgeons in austere environments see a lethal cycle of coagulopathy, hemorrhage, acidosis, and hypothermia which ultimately lead to death. Their capabilities in the austere environment include surgical instruments with a sterilization plan, blood products, active re-warming, monitors, ultrasound, and lab (iSTAT). COL Telian discussed having an austere surgical CPG outline which would include mission planning considerations, team capabilities, leadership responsibilities and documentation.

11). Education and Training Update (Col Michael T. Charlton): Col Charlton gave an update over the CoSCCC Education and Training Subcommittee briefing the group over KSA/Core competencies, the Emergency War Surgery Course (EWSC), Joint Trauma Readiness Trauma Platform (JTRTP), ATLS-OE, and NDAA 708 Elements.

Suggested task competencies fir various specialties were collected from SME's and submitted to the KSA panels. KSA panels met in March and developed specialty specific core knowledge competencies based on current CPG's and data provided. Trauma nursing competencies are also being developed. The KSA project will help identify CPGs that are relevant across all services. The redemption plan is non-punitive, enforceable by service buy-in, focus only on Level II domain competencies (readiness skills), and 3-6 months in duration with well-defined curriculum.

The current EWSC course consists of ASSET, live tissue training and single day of didactics. Not uniformly required among the Services for pre-deployment. Skills sessions will ultimately become the platform for KSA assessment. The sessions are currently one size fits all, didactics consist of slides based on EWS manual (some CPGs addressed) and exploring new learning modalities similar to TCCC project.

Looking to develop focused and standardized pre-deployment training platform. Current services training platforms are all service and mission specific. Emphasize that teams that train together will do well if they deploy together. They also identified many service based trainings and suggest using a Training Pyramid Concept with 3 levels.

Level 1: Specialty Specific (GME, hospital credentialing, board certification)
Level 2: Readiness Training (EWSC, KSA's JTRTP)
Level 3: Service/Mission Specific (CCAT, etc.)

When discussing ATLS-OE, Col Charlton explained that training sites are currently limited to USU, DMRTI, and Madigan. There is a plan to expand to all MTF's with launch of ATLS 10th edition. The Education and Training Subcommittee plans to will act as an advisory body for updates (a formal link between JTS and COT). Col Charlton then discussed NDAA 708 Elements and the integration of Military and Civilian Trauma Centers.

12). Operational Resources Update (COL Kirby Gross): Col Gross gave an update on the CoSCCC Operational Sub-Committee and their current activities. One of their main goals is to deliver the "Red White and Blue" Book which parallels with the American College of Surgeons (ACS) Committee on Trauma (COT) "Orange Book". This book will contain 23 Chapters covering topics such as Roles of Care in the MTS, TCCC, Movement between Roles of Care, Rehabilitation, Burn etc. The goal is for this book to be a resource for multiple users and to mutually support Army/Navy/Air Force policy and CPGs.

The subcommittee would also like to provide a document that will defines what the best practices, resources, and requirements that would provide a significant benefit to the system. Consumers would be commanders of deployed trauma systems. The products would be available to organization leadership but also, theater leadership. COL Gross then went through the chapters of the book and described the content within each one. The timeline to have products drafted is set for November. By March 2018 the final product will be submitted to ACS COT.

13). CPG Subcommittee Update (Col Stacy Shackelford): Col Shackelford gave the group an update on the CPG Subcommittee and their activities. The subcommittee is currently working on two items. The first is completing a DOTMLPF analysis of CPGs and the second is publishing a paper to improve the implementation of CPGs. Currently, training is a barrier to the implementation of CPGs. The idea is to develop a joint core curriculum. Another idea that Col Shackelford mentioned was loading CPGs onto an app that provides training videos and/or guidelines for this project.

Col Shackelford then went onto identify and discuss the current CPG Gaps. They are listed below.

-Critical Care (ACS, Stroke)
-CBRN
-Neurosurgery by general surgeons
-Pediatrics
-Thoracic

-Forensic, Human Remains

Enclosure (1) – Meeting Attendance

CoSCCC Voting Members:
COL Mary Edwards
CAPT Craig Shepps
CAPT Zsolt Stockinger
LTC Jennifer Gurney
Col Stacy Shackelford
CAPT Eric Elster
Col Mark Ervin
COL Ray Fang
COL Kirby Gross
COL Mark Pallis
Col Randy McCafferty
CDR Mike Kearns
Lt Col Joseph Dubose
CDR Matt Hannon
LTC Jason Corley
CDR Virginia Blackman
Lt Col (res) Anne Rizzo
CDR Travis Polk
COL Elizabeth Mann-Salinas
LTC Martin Schreiber
COL (Res) Brian Eastridge
COL Lance Cordoni
Col Simon Telian
Col Michael Charlton
COL Ricardo Ong
SMSgt Tamara Ray
MSG Carl Hoover
MAJ Colin Frament
SSG Cedric Martin
Dr. Saafan Malik

Subject Matter Experts:
COL Andrew cap
LTC Jim Pairmore
LT Col Greg York
COL Clint Murray
Mr. Ed Whitt
Dr. Frank Butler
Dr. Russ Kotwal
Dr. Don Jenkins
Dr. Nick Namias
Dr. C. William Schwab
Dr. Mary Ann Spott
Dr. Don Marion

COSCCC Staff:
Mr. Dominick Sestito
Ms. Brianna Premdas

Additional Guests:
LTC Cord Cunnigham
Lt Col Antoinette Shinn
CAPT Darren via
Maj Mason Hunt
MAJ Richard Lesperance
COL Kurt Edwards
SMSgt Noe Chavez
CDR Elliott Jessie