

## Proceedings from the 2017 Mid-Year Meeting of the Committee for Tactical Emergency Casualty Care (C-TECC) and Committee Updates

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Founded in 2011, the Committee for Tactical Emergency Casualty Care (C-TECC) is a standing, independent, non-profit organization [501(c)(3)] composed of operational and academic medical leaders with a unified mission to develop and maintain best practice guidelines for the provision of medical care during high threat incidents and atypical events. Translating key lessons learned from its military counterpart, the TECC guidelines promote evidence-based management of casualties during tactical and rescue operations accounting for differences in civilian environments, resources allocations, patient populations, and responder scopes of practice. The full C-TECC convenes formally twice annually to present scientific advances, emerging technology and update TECC guidelines to further enhance the life-saving mission.

The 2017 Mid-Year C-TECC Full Committee Meeting was held on 4–5 December 2017 and was hosted by the Rancho Cucamonga, CA Fire Department. The meeting was robustly attended and included participation by leaders, subject matter experts, presenters, and stakeholders from domestic and international law enforcement, EMS, fire/rescue, military, industry, and interested parties. The meeting was streamed live on social media and viewed by 17,000 individuals.

### General Proceedings

Dr Reed Smith, C-TECC Co-Chair, called the meeting to order. Following the Pledge of Allegiance and general introductions, Dr Smith presented the Board of Directors report. Meeting schedule and general rules of order were reviewed.

### Board of Directors Updates

C-TECC welcomed several recent additions to the Board of Directors and Guidelines Committees. Dr Eric Vu (Vancouver, BC, Canada), Mr Christopher Baldini (Philadelphia Fire Department, PA), Dr Matthew Sholl (State EMS Medical Director, Maine), and Dr Peter Taillac (State EMS Medical Director, Utah) were announced by the Board of Directors as new voting members of the Guidelines Committee. Dr Carol Cunningham (State EMS Medical Director, Ohio) and Dr Richard Kamin (State EMS Medical Director, Connecticut) were announced as new members of the Board of Directors. Also joining C-TECC as a special advisor to the Board of Directors is Mr Randy Stair (United States Secret Service, Emergency Services Section).

Fundraising remains a concern, and concerted efforts to expand campaigning efforts will be a focus area for the upcoming year. Ideas were solicited from members and supporters to improve outreach and involvement. The Board of Directors

recognizes and appreciates the dedication and continued participation of those involved despite the lack of funds to support travel and meeting attendance.

Multiple C-TECC administrative updates and presentations were discussed:

- Geoff Shapiro presented an update of the White House National Security Council Resilience Directorate Working Group.
- The C-TECC Recognized Education Content program was discussed. Concerns were put forth about the quality of the training provided by REC's and methods to ensure quality control was debated. In the future, additional levels of C-TECC endorsement may be available after review of content and instruction.
- Ofer Lichtman of the Rancho Cucamonga, CA Fire Department presented their active shooter response program and Terrorism Liaison Officer (TLO) program, which serves as an example at the national level.
- Both Michael Shertz and Michael Marino were nominated to be the Guidelines Committee representative to the Board of Directors. A vote will be taken at the Annual Meeting in May 2018 to decide who will be the representative.
- Pete Carlo, Las Vegas SWAT, presented information on the Las Vegas shooting from his perspective as a physician assistant at University Medical Center in Las Vegas.

Michael Marino presented on the High Threat Institute's Fly Team. The fly team deployed to Las Vegas, NV in the immediate aftermath of the incident on 1 October 2017. Mike Marino and John Delaney, representing the High Threat Institute (also C-TECC guideline committee members), were on the ground and initiated a multidisciplinary after action review for rapid dissemination of lessons learned to the first responder community. The goal is to incorporate adaptive learning in near real-time after significant incidents to enable more effective responses to new threats.

Dr Josh Bobko updated the Committee on the First Care Provider initiative.

### TECC Guidelines

Working groups presented their continued efforts to include guidance on mitigating psychological issues surrounding high-impact responses, CBRNE responses, pediatric guidelines, and addressing the need to update medical instruction protocols used by dispatchers/call takers to include TECC interventions. New working groups were created as well, to include a burn

working group and new equipment working group. A research and development working group was proposed and will be voted on at the May 2018 annual meeting.

In response to end-user feedback, C-TECC has developed abridged guideline documents for each specific scope of provider of the chain of survival. These abridged guidelines attempt to take into account the specific scope of practice, nomenclature, standard of care, equipment availability, training, and other issues for each of the provider levels. These scope specific guidelines do not differ from the existing set of full TECC guidelines; instead, each set of provider guideline focuses the TECC guidance to the appropriate skill level and scope of the specific end user. Currently, the scope-specific guidelines for first care providers are available on the C-TECC website.

The specific guidelines for medical first receivers were discussed at the meeting. Further discussion on them will take place at the 2018 May annual meeting.

### Program Updates

The George Washington University School of Medicine and Health Sciences has continued with the development of a series of TECC training courses funded by a FEMA Continuing Training Grant (CTG). The courses are currently undergoing final review and approvals, and should be available for widespread delivery by the end of January 2018. The first course in the series, Introduction to Tactical Emergency Casualty Care (TECC) (AWR-359-W), is web-based, has received final approval, and is currently available at <http://tecc.inquisiq4.com/>.

The other courses in the series are PER-356: TECC for First Care Providers, PER-357: TECC for Law Enforcement, PER-358: TECC for Fire/EMS, PER-359: TECC for First Receivers, PER-360: TECC for First Responder Integration for Active Shooter/Active Killing Incidents-Rescue Task Force (RTF), and PER-361: TECC Active Shooter/Active Killing Incident Command. Interested agencies and jurisdictions can request the training from their State Administrative Agency (SAA). The SAA contact list can be found at <https://www.fema.gov/media-library/assets/documents/28689>.

Specific issues currently being studied by the committee, either in working groups or as a whole, include use of chest seals, integration of additional WMD/CBRN considerations, and whole blood and blood product use in the field. Guidelines and/or language changes related to these areas will be considered at the annual meeting in conjunction with SOMSA.

### Case Study

Pete Carlo, PA-C (C-TECC Board of Advisors), described his experience on the evening of 1 October 2017 following the shootings that occurred during the Route 91 Harvest Festival concert. The incident resulted in 489 individuals being injured by a single assailant occupying the high ground of a hotel across from the outdoor concert venue. Fifty-eight people died from their injuries. Mr Carlo provided an explanation of the overall response and focused on specific events involving him at his hospital. Mr Carlo described how reporting to his trauma center as opposed to responding to the scene, despite his being a tactical medic with SWAT, had a positive impact on operations at the hospital. Anecdotal evidence reinforces

the importance of the TECC Chain of Survival and need for coordinated efforts by first care providers, law enforcement, fire/EMS, and first receivers.

Significant point of wounding care was performed by first care providers and law enforcement personnel. Many victims had multiple penetrating injuries given the number of rounds fired and fragmentation that occurred from the projectiles. Atypical transport platforms, including ride-sharing apps and taxis, were used to expedite transport of patients to definitive care. Additional research must be conducted to determine wounding patterns, efficacy of interventions, and future impact on TECC guidelines and high threat operational response.

Also of note was that initially, first responders considered that this incident may have been a complex coordinated attack (CCA) since multiple other casinos were calling in active shooter incidents when injured victims presented at outlying casinos away from the Route 91 festival. This was de-conflicted but presented a challenge for first responders already dealing with a significant and difficult initial incident scene. The need for integrated and coordinated response operations and especially unified command was used in this case to respond and mitigate appropriately for incident resolution.

### National Activities

Members of C-TECC continue to support federal activities such as the Joint Counter Terrorism Awareness Workshop Series and Integrated Emergency Management Course for Complex Coordinated Response. In November, key leadership of C-TECC participated as stakeholders in a meeting of the White House National Security Council Resilience Directorate Working Group to address preparedness, response and community resilience in active shooter incidents. In January 2018, C-TECC leadership and advisors will attend an "Active Shooter Listening Session" co-hosted by the Department of Homeland Security Office of Health Affairs and the Federal Emergency Management Agency.

The National Fire Protection Agency (NFPA) has released its latest draft of the NFPA 3000: Standard for Preparedness and Response to Active Shooter and/or Hostile Events. The purpose of NFPA 3000 is to "identify the minimum program elements necessary for organizing, managing, and sustaining an active shooter and/or hostile event response program and to reduce or eliminate the risks, effect, and impact on an organization or community affected by these events." The draft standard is currently open for review and public comment. TECC is included as the standard guideline for point of wounding care during such incidents and as a listed competency for both law enforcement and medical providers. The standard can be accessed at <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=3000>

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