

TECC for TEMS UPDATES

Proceedings of the 2023 Spring/Summer Meeting of the Committee for Tactical Emergency Casualty Care (C-TECC) and Committee Updates

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Introduction

Founded in 2011, the Committee for Tactical Emergency Casualty Care (C-TECC) continues to operate as a stand-alone non-profit organization. It is comprised of operational and academic leaders with a unified mission to develop and maintain best practice guidelines (BPGs) for the provision of trauma care in high-threat environments. Translating key lessons learned from its military counterpart, the Tactical Emergency Casualty Care (TECC) guidelines promote evidence-based management of casualties during tactical and rescue operations under different civilian environments, resource allocations, patient populations, and responder scopes of practice. The full C-TECC convenes formally twice annually to present scientific advances, review emerging technologies, and update TECC guidelines to further life-saving care.

The 2023 Spring/Summer C-TECC Full Committee Meeting was held in conjunction with the Special Operations Medical Association Scientific Assembly (SOMSA) on May 15, 2023 in Raleigh, North Carolina. The meeting was robustly attended and included participation by leaders, subject matter experts, presenters, and stakeholders from domestic and international law enforcement agencies, emergency medical services (EMS), fire/rescue personnel, military, industrial, and other interested parties.

C-TECC Updates

In accordance with C-TECC Bylaws, positions on the Board of Directors and Guidelines Committee are reviewed annually with changes made based on appointment terms. Member changes this year reflect the ascension of former Guideline Committee members, Dr David Tan and Dr Andy Pennardt, to the Board of Directors. Dr Allen Yee was appointed Vice-Chair upon the conclusion of Co-Chair Dr Richard Kamin's term. Mr. Michael Marino now serves as a Co-Chair. New voting

members on the Guidelines Committee include Dr Jason Jones (University of Florida Emergency Medicine), Dr Brian Walters (Cattaraugus County, NY Sheriff's Dept.), Capt. Ryan McGovern (Boston Fire Dept. Special Operations), Mr. Joshua Knapp (Bureau of Alcohol, Tobacco, Firearms & Explosives, Washington, D.C.), and Mr. Tim Curtis (University of Chicago Medicine). The Co-Chairs thanked and recognized all outgoing members who now serve on the Board of Advisors or the Board of Advisors Emeritus.

Significant changes to the Recognized Educational Content (REC) Partner program were successfully instituted in 2022, and program updates were presented. All existing and new Recognized Educational Partners will be required to complete an annual application process to maintain recognition. Future affiliation with the REC program will require certain reporting standards. Recognized Educational Content partners are neither endorsed by C-TECC, nor are considered official C-TECC programs, but are entities that have agreed to present TECC material in an appropriate manner and abide by the parameters of recognition. C-TECC does not guarantee the quality of educational materials or methods of instruction by recognizing any partner.

The past C-TECC Chair, Dr Nelson Tang established and will lead the newly formed C-TECC Student, Resident, and Fellow Section along with Dr Andrew Garrett, Board of Advisors. This section will serve as an access point for learners at all levels of medical training to appreciate the fundamental concepts of operational medicine and better understand the TECC mission. This section will additionally provide a platform to foster continued academic, research, and investigative efforts that inform the TECC guidelines. C-TECC membership is expected to offer a robust base of subject matter experts to serve as mentors and points of contact for interested learners.

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TECC Reports

Dr David Callaway, C-TECC founding member and current Chief Medical Officer for Team Rubicon, delivered a presentation on the continuing efforts to train, prepare, and respond to the ongoing armed conflict in Ukraine. Humanitarian aid organizations working in conflict zones are bound by the international humanitarian principles of humanity, neutrality, independence, and impartiality. Similar to the high-threat casualty care provided in the civilian prehospital response sector, TECC presents an important trauma response framework in conflict zones that align civilian and military resources in a common rubric while respecting the institutional and ethical boundaries of each.

Mr. Andrew Rowley, C-TECC Board of Advisors, provided an update on the implementation of various TECC initiatives within the Drug Enforcement Administration Operational Medicine Program. Mr. Rowley characterized the use of TECC at various levels within the agency such as the agent and agent/medical provider levels. He also described the challenges encountered utilizing a national standardized training program that is not customized to the specific tactics, techniques, protocols, and resources of the program. Mr. Rowley acknowledged the utility of appropriate TECC guidelines and the flexibility to develop customized programs.

Dr Jason Pickett, Guidelines Committee, reported that the National Tactical Officers Association (NTOA) is releasing the Tactical Response and Operations Standard (TROS) for Law Enforcement, which includes TECC as a minimum standard for the provision of point of wounding medical care.¹ Additionally, the NTOA Public Order Response and Operations Standards, released on June 5, 2023 includes TECC as suggested for all medical providers supporting law enforcement operations.²

The Federal Emergency Management Agency (FEMA) Office of Intelligence and Threat Analysis will be conducting a Targeted Violence Mass Casualty Hospital Response Workshop at ECU Health in Greenville, NC on June 13, 2023. The workshop features C-TECC founders Dr Reed Smith and Mr. Geoff Shapiro, Past-Chair Dr Rich Kamin, and Director Chief Jim Schwartz. The workshop objectives include identifying gaps and best practices related to individual, systems, and interdisciplinary coordinated efforts in response to large-scale high-threat incidents with significant impact on healthcare delivery.

Guideline Updates and Scientific Advances

A significant addition to the TECC Guidelines was presented at the plenary session. Each TECC Guideline will now include a preamble, which identifies, clarifies, and contextualizes elements of the guidelines and their applications. Although the founding principles of C-TECC remain intact from its inception, key elements of TECC specific to individual guidelines need to be highlighted. The preamble addresses tenets and applicability of TECC in various contexts and is included as Appendix A.

The revised Pediatric TECC Guidelines have been finalized and approved. Dr Andy Garrett, the Pediatric Working Group Lead, presented the final version of the guidelines and highlighted differences from prior iterations. The updated Pediatric Guidelines will be published separately and made available on the C-TECC.org website.

The Evacuation Care Working Group, led by Dr Matt Sztajnkrzyer, remains actively engaged in ensuring revisions and clarifications of appropriate sections in the guidelines. The Board of Directors is consulting with the working group to refine definitions and objectives. The proposed changes should be finalized for the Winter Full Committee Meeting.

Dr Claire Park, Guidelines Committee, and Sgt Mike Paice of New Scotland Yard (SCO19) described the implementation of the Ten Second Triage (TST) tool in London, UK. TST can be performed by non-medical providers depending on the location of anatomic injury and casualty condition. Dr Park presented the research data utilized to validate the tool, as well as strategies related to integration with the Major Incident Triage Tool. Preliminary exercise data suggest that the existing and novel triage systems are complementary and can be utilized in conjunction while decreasing times and improving outcomes. Sgt Paice presented such medical programs, which are currently utilized by numerous law enforcement units in London, UK.

The next C-TECC Full Committee Meeting will be convened in Ft. Worth, TX on December 5, 2023. Agenda items will include review of evidence on tourniquet use and side-effects since its ubiquitous implementation in the civilian prehospital environment.

Acknowledgments

The C-TECC Board of Directors would like to thank the Special Operations Medical Association (SOMA) for its continued support of TECC and for providing a meeting location during the Scientific Assembly. The C-TECC relies on information sharing between our civilian and military partners and is grateful that the vast majority of C-TECC members are also SOMA members who were thus able to attend the entire Scientific Assembly. Additionally, the C-TECC Board of Directors recognizes the outstanding efforts and ongoing contributions of our Executive Director, Ms. Daneen Matheson.

References

1. National Tactical Officers Association. NTOA Tactical Response and Operations Standard for Law Enforcement Agencies. 2023. <https://ntoa.org/pdf/TROS.pdf>. Accessed 22 August 2023.
2. National Tactical Officers Association. Public Order Response and Operations Standards. June 2023. <https://ntoa.org/pdf/PublicOrder.pdf>. Accessed 22 August 2023.

KEYWORDS: *tactical emergency casualty care; TECC; special operations; SOF; trauma*

APPENDIX A

Preamble to Tactical Emergency Casualty Care Guidelines

Traditional response paradigms that prioritize scene safety before patient care may result in treatment delays that negatively affect patient and rescuer outcomes in environments with real or perceived threat(s). To address this gap, the Tactical Emergency Casualty Care (TECC) guidelines describe patient care standards for persons of all age groups in an all-hazard, high-threat environment.

The TECC construct consists of three dynamic phases of care: direct threat, indirect threat, and evacuation. These phases are intended to correlate directly with the contemporaneous threat level and are not solely geographic in nature. Immediate access to the injured, rapid life-saving interventions at or near the point of injury, and early extraction of those needing transport to definitive medical care, are paramount to reduce mortality and morbidity throughout all phases of TECC. In addition to treating physical injuries, limiting exposure of personnel to the incident and providing appropriate early psychological

support are key principles for addressing the mental health needs of patients, survivors, and responders.

The TECC system of care is administered during incidents in which operational threats, such as active violence, hazardous material, fire, and structural instability, shape the medical response. This system of care is based upon principles, not protocols. While the TECC principles are universal, the applications thereof are specific to the agency, provider, practitioner, and resource.

The TECC guidelines are agnostic to specific commercial products but depend on the scope of practice. They require a systems approach based on the totality of the event, including available resources and clinical capabilities. The Committee for Tactical Emergency Casualty Care does not endorse specific training programs or instructors but encourages all end-users to appropriately employ these guidelines.

PMID: 37699260; DOI: 10.55460/APZU-5IKO



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JOURNAL of SPECIAL OPERATIONS MEDICINE™



Fall 2023
Volume 23, Edition 3

THE JOURNAL FOR OPERATIONAL MEDICINE AND TACTICAL CASUALTY CARE



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