Spring Committee for Tactical Emergency Casualty Care (C-TECC) Update

Reed Smith, MD; Joshua Bobko, MD; Geoff Shapiro, EMT-P; Brendan Hartford, EMT-P; David Callaway, MD

OVERVIEW

Progress on the widespread application and operational implantation of TECC as the standard for high-threat civilian operational medical response continues to grow. In the past 6 months, presentations on and discussions involving TECC implantation have been held at senior state, regional, and federal levels. Much of the national expansion of TECC is supported by the following organizations and documents:

International Association of Fire Fighters
http://www.iaff.org/Comm/PDFs/IAFF_RTF_Training_Position_Statement.pdf

International Association of Fire Chiefs
http://www.iafc.org/files/1ASSOC/IAFCPosition_ActiveShooterEvents.pdf

Urban Fire Forum
http://www.nfpa.org/research/resource-links/first-responders

United States Fire Administration
http://www.nfpa.org/~/media/Files/Research/Resourcelinks/Firstresponders/UrbanFireForum/UFFactive_shooter_guide.pdf

C-TECC Winter SOMSA Meeting Summary

The meeting at SOMSA this year was extremely well attended, by both our members and many conference attendees. The support from SOMA this year was fantastic as always, as demonstrated by how easy it was to expand our room from 50 to 150 seats. Thank you again to the administration and directors for the SOMA Scientific Assembly.

The Board of Directors (BOD) presented a brief update regarding the finances of the committee as well as a thank you to Brent Bronson and North American Rescue Products for their continued support of the committee. The next BOD meeting will be in January and will discuss the addition of at least one new member to the Guidelines Committee.

Fergusson Debrief

Guideline Committee members Dr David Tan and Robert Wylie gave us a fantastic impromptu debrief on the tactical response to the Ferguson, MO, riots over the past few months—several learning points were passed:

- The need to prepare for extended mobile operations: most TAC operations are static on location in one place. In Ferguson, responders moved constantly for over 10 hours based on crowd movements. This highlighted the importance of fluid zones of operations and phases of care during dynamic situations.
- With the significant heat and humidity at the time, members of their team suffered from dermatitis and heat rashes. As a stop-gap, they used wet wipes to provide hygiene and drying in the areas affected. Aggressive heat injury prevention strategies are critical.
- Resupply issues and basic logistics during large-scale crowd movement remain challenging. Crowd movements often compromised the designated "cold zones" (e.g., minimal risk geographic areas), making supply of food and water for operational teams difficult. Planning should be done to allow for individual Go Bags to limit the need for intact supply lines during mobile operations. In addition, the concept of "cold zones" needs to be reconsidered, redefined or eliminated from the lexicon in dynamic events.
- Social media: Counterinsurgency operations and effective use of social media were used by the crowds. It is well worth the time to become more familiar with these tactics, as well, to develop social media monitoring programs for your agency.

TECC First Care Provider (Leads: Dr Josh Bobko, Mark Anderson, EMT-P, and Dr Rich Kamin)

Guidelines Committee member Dr Joshua Bobko presented on the First Care Provider initiative. The term First Care Provider, coined by Dr Bobko and Board of Advisors (BOA) member Todd Baldridge, is meant to denote those people who are involved in a high-threat disaster or mass casualty scenario by proximity but are

the common meaning of the terms, the Guidelines Committee voted to include the terms. A second motion and vote was also carried to include language in the guidelines to clearly explain the meaning of each phase of care. The TECC phases will now be referred to as Direct Threat (Hot Zone), Indirect Threat (Warm Zone), and Evacuation Care (Cold Zone).

Standardized Teaching Deck

After a large volume of requests and nearly 2 years of discussion, the Committee approved the development a standard slide deck to teach TECC for first responders. This is not meant to be the only method for teaching TECC but is to be a resource for agencies and personnel who have not been able to develop their own training. It is still, and will remain, the position of the Committee that incorporation and training of TECC should be developed locally in an agency-specific manner as opposed to rigid cookie-cutter methods. TECC is intended to be adaptable to each agency's culture, scope of practice, providers, risk appetite, etc. and ideally would be operationalized in a manner that is unique to each agency. However, the Committee feels that full development of training may be beyond the capability of resource-limited agencies and thus the standard generic TECC training slide deck will serve as a much-needed resource. These slides should be developed and approved by the Spring 2015 meeting and will be provided to the public at no cost.

Vendor Presentation

As part of the ongoing mission to keep all C-TECC members up to date on the most current equipment and supplies for high threat response, John Steinbaugh from RevMedX presented on the new hemostatic X-Stat® that is now being fielded. As with all vendor presentations to the Committee, the inclusion of X-Stat on the agenda does not imply endorsement by the Committee but is for information sharing only. A non–Committee-endorsed comment on the presentation and the product can be found at http://www.itstactical.com/medcom/medical/tccc-and-c-tecc-updates-from-soma-2014/.

The Chairmen and Board of Directors of the Committee for Tactical Emergency Casualty Care would like to thank all of its members, as well as the stakeholders in first response who have spent much of time and effort in development of the TECC guidelines. Almost all of this work is unsupported and thus is a true labor of love.

C-TECC Winter Meeting Minutes

I. Presentations & Reports
   a. Welcome and Schedule–Dr E. Reed Smith
   b. Board of Directors report–Dr E. Reed Smith
   c. Ferguson, MO debrief–Tan/Willey
   d. First Care Providers–Dr Josh Bobko
   e. UK Line9Medic–Stewart Thomas
   f. Interagency Board–Captain John Delany
   g. X-Stat–John Steinbaugh
   h. I.V./I.O. Access–Dr Mel Harris
   i. Public Comments–Open Forum–Dr E. Reed Smith
      i. Psych working group update–Dr Rich Kamin
      ii. New language, Hot/warm/cold zone–Dr E. Reed Smith
      iii. TECC Standard training/slide deck–Dr E. Reed Smith
      iv. New working group–TECC K9–Lee Palmer DVM
   j. Committee Voting
      i. **VOTE–**Form K9 working group–MOTION by Bozeman, SECOND by Anderson Vote–Unanimous
      ii. **VOTE–**Dr Yee to head K9 working group–MOTION by Anderson, SECOND by Kamin Vote–Unanimous
      iii. **VOTE–**To close discussion–MOTION by McKay, SECOND by Hartford Vote–Unanimous
      iv. **VOTE–**To change to phases of care descriptor to Direct Threat/Hot Zone, Indirect Threat/Warm Zone, Evacuation Care/Cold Zone MOTION by Bozeman, SECOND by Anderson Vote–11-4 passes
      v. **VOTE–**To not add the phase of care descriptor change today and wait until the May 2015 meeting after a white paper is written to describe the reason for the changes–MOTION by Bozeman, SECOND by Kamin Vote–Unanimous
      vi. **VOTE–**To form a working group for extended care operations–MOTION by Smith, SECOND by Hartford Vote–Unanimous
      vii. **VOTE–**To form a working group for First Care Provider operations–MOTION by Anderson, SECOND by Callaway Vote–Unanimous

References

1. **Eastridge BJ, Mabry RL, Seguin P, et al.** Death on the battlefield (2001–2011): implications for the future of combat casualty care. *J Trauma Acute Care Surg*. 2012;73(6 Suppl 5): S431–S437.
2. **Patel S, Rasmussen TE, Gifford SM, et al.** Interpreting comparative died of wounds rates as a quality benchmark of combat casualty care. *J Trauma Acute Care Surg*. 2012;73(2 Suppl 1): S60–S63.
3. **Gerhardt RT, Berry JA, Blackbourne LH.** Analysis of lifesaving interventions performed by out-of-hospital combat medical personnel. *J Trauma*. 2011;71(1 Suppl):S109–S113.
4. **Kotwal RS, Montgomery HR, Kotwal BM, et al.** Eliminating preventable death on the battlefield. *Arch Surg*. 2011;146(12): 1350–1358.
5. **Eastridge BJ, Hardin M, Cantrell J, et al.** Died of wounds on the battlefield: causation and implications for improving combat casualty care. *J Trauma*. 2011;71(1 Suppl):S4–S8.
6. http://www.huffingtonpost.com/2013/04/15/heroic-first-responders-a_n_3088369.html.

uninjured. Formerly referred to as "bystanders," these people represent medical force multipliers for traditional first responders and should be leveraged to initiate needed medical care to the wounded.

As active violence continues to become more prevalent in our society, first responders strive to improve response to these events. However, despite these systemic improvements, there continues to be an ever-present shortcoming in our ability to react to these horrific encounters quickly enough. There remains a major gap in public safety—civilian medical response to atypical emergencies. There is clear evidence that demonstrates an inherent delay in the immediate medical care at the scene of an emergency. Additionally, through analysis of military data, it has been demonstrated that immediately addressing the most common injury patterns following a traumatic event will save lives.[1–5] The nature of these injuries makes the time until arrival of medical care critical, often necessitating care prior even to the arrival of first responders. Analysis of current events shows repeatedly that bystanders present on scene can and will attempt to respond to these medical emergencies.[6] Implementing an approach similar to the American Cardiac Arrest Act we can improve our outcomes to traumatic events. We analyze the latest data from the FBI report on Active Shooter incidents, and hypothesize that by creating a network of trauma trained medic extenders, we can improve not only our response to these catastrophic events but also the resilience of our communities.

International Application of TECC

Stewart Thomas, the proprietor of Line 9 Medic and former British military, presented a summary of the TECC roll out in the United Kingdom and Europe. Stewart has developed TECC training programs for British first responders called Hostile Environmental Medical Skills And Tactics (HEMSAT). The HEMSAT course is based on the tenets of TECC and has been taught to a variety of emergency response personnel over the past several years. As a result of his work, Stewart also recently joined the C-TECC Board of Advisors as an international asset to provide guidance on increased dissemination of TECC outside of the United States.

InterAgency Board (IAB)

Guidelines Committee member John Delaney briefed the Committee on the activities of the IAB (www.iab.gov) and the TECC work that is being done within the IAB. The IAB is a voluntary collaborative panel of emergency preparedness and response practitioners from a wide array of professional disciplines that represent all levels of government and the voluntary sector. The IAB provides a structured forum for the exchange of ideas among operational, technical, and support organizations to improve national preparedness and promote interoperability and compatibility among local, state, and federal response communities. Based on direct field experience, IAB members advocate for and assist the development and implementation of performance criteria, standards, test protocols, and technical, operating, and training requirements for all-hazards incident response equipment with a special emphasis on chemical, biological, radiological, nuclear, and explosive issues. The IAB also informs broader emergency preparedness and response policy, doctrine, and practice. Several members of C-TECC currently serve on the IAB as well. Over the past 3 years, the Health and Medical Responder safety subgroup has been discussing and developing recommendations to the first responder community for the incorporation of TECC into high-risk operations. Most notably, all TECC equipment (e.g., tourniquets, pressure bandages, hemostatic agents) has been incorporated into the federal standardized equipment list, TECC has been added as a project item to the HMRS working list, and a white paper on the need for TECC training for Law Enforcement officers is in final review.

Psychological Working Group

Dr Rich Kamin, Psychological Trauma Mitigation working group leader, and Board of Advisors member Dr Matt Wentzel spoke on the progress of the working group that included distribution of the IAB white paper on psychological mitigation for first responders. We expect incorporation of new language on psychological mitigation into the guidelines at the Spring 2015 meeting.

TECC for K-9

Two other important projects came out of the meeting. First, Committee guest Dr Lee Palmer, DVM, volunteered to help the Committee create a TECC for working canines. Unanimously approved by the Committee, the working group will be lead by Board of Advisors member Dr Allen Yee and Dr Palmer. This is a fantastic extension of TECC and is much needed for our working canine partners in all areas of first response, not only law enforcement. The other project was the formation of a working group to examine the need for additions to the Evacuation Care/Cold Zone guidelines for extended care operations, such as post-Katrina or post-earthquake missions.

Guideline Changes

Co-Chairman Dr Smith then reintroduced the issue of inclusion of Hot, Warm, and Cold Zone into the names for the TECC phases of care. This issue had been brought to the Guidelines Committee online after the last meeting but was tabled by the Executive Committee in order to allow for open discussion in front of the entire Committee. After much discussion among the members and guests, mainly hinging around ensuring all disciplines understood