

Role of Tactical EMS in Support of Public Safety and the Public Health Response to a Hostile Mass Casualty Incident

Nelson Tang, MD, FACEP, and Gabor D. Kelen, MD, FACEP, FRCP(C)

On the morning of August 1, 1966 a lone student ascended the campus tower of the University of Texas at Austin and killed between 13 and 16 people and wounded 31 others in what was at the time the deadliest mass shooting in this nation's history. As this massacre unfolded, a large albeit chaotic public safety response ensued that included on- and off-duty city police officers, sheriff's deputies, and state police troopers, as well as armed civilians who arrived to assist. This tragic and then unprecedented incident demonstrated to law enforcement agencies that increased preparedness and specialized response teams were necessary to deal with crises requiring intervention beyond the normal capabilities of patrol officers.

HISTORICAL BACKGROUND OF TACTICAL EMERGENCY MEDICAL SERVICES

The so-called Texas tower incident, among others, is often cited as a key impetus for the development of Special Weapons and Tactics (SWAT) teams that are commonly deployed by police departments and law enforcement agencies throughout the United States.¹⁻³ In the subsequent decades came a proliferation of SWAT or "tactical" teams in response to rapidly evolving patterns of crime and violence and the need to provide an effective response to the criminal use of military style weapons, hostage taking, and increasingly organized terrorist activities. Today, the law enforcement tactical mission commonly includes responses to hostage or barricade incidents, high-risk warrant service, civil disturbances, dignitary and executive protection missions, maritime and dive operations, and explosive ordnance disposal.

The emergence of tactical emergency medical services (EMS) followed closely the expansion of SWAT teams and, although not without controversy, the concept of tactical medicine support has gained increasing recognition as an essential element of the mission of law enforcement.⁴⁻⁷ In 1989 representatives from law enforcement, emergency medicine, and prehospital EMS gathered to develop consensus on the provision of medical support to SWAT teams.^{8,9} The National Tactical Officers Association issued a position statement in 1993 supporting Tactical Emergency Medical Support as "an important element of tactical law enforcement operations."¹⁰ The National Association of EMS Physicians further described medical support of law enforcement special operations in a 2001 position paper.¹¹ In 2004 the American College of Emergency Physicians endorsed Tacti-

cal Emergency Medical Support as an essential component of law enforcement teams that "helps maintain a healthy and safer environment for both law enforcement and the public."¹²

Despite their increased presence across the nation, tactical EMS programs often remain grassroots initiatives, existing under the auspices of ad hoc memorandums of understanding between law enforcement and a medical entity, with limited funding, and involving nondedicated assets and personnel. Notwithstanding such barriers, the role of tactical EMS has been described in a number of unconventional prehospital scenarios.^{13,14}

TACTICAL MEDICINE AND EMS

Specially trained tactical medicine teams often support high-risk law enforcement operations by providing scene commanders with medical threat assessments, delivering immediate emergency medical care, and promoting the safety and health of law enforcement personnel. Tactically trained EMS personnel achieve their objectives through mission preplanning, implementing medically effective practices developed for law enforcement scenarios, and providing a critical interface between law enforcement personnel, EMS, and the emergency health care system.

The goals of tactical medicine are, broadly, to facilitate the success and the safety of law enforcement missions during all phases of a tactical or SWAT operation through the delivery of preventive, urgent, and emergency medical care. The principles that are held by tactical medicine providers were initially developed by the military for small unit operations^{15,16} and continued to gain widespread acceptance in the civilian law enforcement community. Their primary function during a mission is to provide broad medical oversight to operations including injury prevention, resource allocation, and rapid access to emergency medical care within the operation. During law enforcement operations, medical activities and casualty movements are a coordinated effort between the command post, operational team leaders, and the medical support element.

A fundamental principle in tactical medicine is that the medical mission may be subordinate to the overall law enforcement mission. In contrast to conventional EMS and hospital practices, in which the sole priority is usually the health and welfare of the patient, the essential priority in a

tactical mission is the success of the law enforcement objective. When a casualty occurs during a tactical operation, medical providers may be directed to delay or modify medical care until the tactical commander determines that rendering care will not jeopardize the overall mission.

CURRENT ISSUES

The prevalence of hostile mass casualty events such as school and workplace shootings has become a tragedy of catastrophic proportions. The underlying psychological and social causes of such psychopathic behavior are likely to be determined to be complex and multifactorial. Nevertheless, it remains that the destructive capacity of single or small numbers of individuals armed with conventional weapons must be recognized and anticipated by public safety and public health agencies alike.¹⁷ Although ideally suited to function within the operationally austere conditions of law enforcement SWAT missions, tactical EMS remains a relatively small and selective component of the public safety response to a mass casualty shooting incident.

Unfortunately, tactical EMS has developed experience with the provision of emergency care during mass casualty "active shooter" incidents. For example, under such circumstances, the role of the tactical medical provider may best shift from that of a primary provider to that of an advanced triage element. Because of the enhanced capability to reach and assess victims during an active shooter threat, tactical EMS may be better able to direct and coordinate rescue efforts and medical resources from a superior vantage point. Tactical medicine may also seek to proactively affect both bystander and responder survival by broadly training patrol officers in the fundamental aspects of combat casualty care, increasing the likelihood of basic lifesaving interventions during the earliest stages of an evolving incident.

FUTURE DIRECTIONS

Historically, the core missions of medicine and law enforcement have generally been held separate and distinct. The emerging need for tactical EMS evolved in the relatively narrow context of those rare instances in which the hostile nature of an incident made it unsafe or impractical for conventional EMS to function within the inner perimeter or "hot zone" of an ongoing law enforcement operation. This paradigm has shifted such that active shooter scenarios are frequent, if not commonplace. It may be reasonable to more broadly implement across conventional EMS those approaches and skills developed by tactical medicine for deployment in support of the SWAT mission to aid in preparedness for and response to hostile mass casualty incidents. Should not all EMS be tactical to some degree in the modern era?

It is unlikely that any single component of the public safety infrastructure will be able to effectively and comprehensively respond to those threats posed and casualties inflicted during a hostile mass casualty shooting incident. Despite the impact of tactical medicine, there exists an urgent need for greater

cooperative planning, education, and training among law enforcement, EMS, public health, and the emergency health care system to develop enhanced preparedness for and responses to these types of incidents. Those leading the tactical medicine initiative across this country have already forged many such critical relationships, either by design or necessity, and may be ideally suited to participate in such collaborative public safety initiatives.

About the Authors

Drs Tang and Kelen are with the Department of Emergency Medicine, Johns Hopkins University.

Address correspondence and reprint requests to Dr Nelson Tang, Department of Emergency Medicine, Johns Hopkins University, 5801 Smith Ave, Davis Bldg, Suite 3220, Baltimore, MD 21209 (e-mail: ntang@jhmi.edu).

Received for publication May 31, 2007; accepted June 22, 2007.

ISSN: 1935-7893 © 2007 by the American Medical Association and Lippincott Williams & Wilkins.

DOI: 10.1097/DMP.0b013e3181468790

REFERENCES

1. Carmona RH. The history and evolution of tactical emergency medical support and its impact on public safety. *Top Emerg Med Tactical Emerg Med Support.* 2003;25:277–281.
2. Police Operations: History of SWAT. City of Ventura, California, Web site. <http://www.ci.ventura.ca.us/depts/police/operations/swat.asp>. Accessed May 28, 2007.
3. SWAT Team: History. Columbus, IN, police department Web site. <http://www.columbuspd.com/swat.html>. Accessed May 28, 2007.
4. Heiskell LE, Carmona RH. Tactical emergency medical services: an emerging subspecialty of emergency medicine. *Ann Emerg Med.* 1994; 23:778–785.
5. McArdle DQ, Rasumoff D, Kolman J. Integration of emergency medical services and special weapons and tactics teams: the emergence of the tactically trained medic. *Prehosp Disast Med.* 1992;7:285–288.
6. Jones JS, Reese K, Kenep G, et al. Into the fray: integration of emergency medical services and special weapons and tactics (SWAT) teams. *Prehosp Disast Med.* 1996;11:202–206.
7. Rinnert KJ, Hall WL. Tactical emergency medical support. *Emerg Med Clin N Am.* 2002;20:929–952.
8. Rasumoff D. EMS at tactical law enforcement operations seminar a success. *Tactical Edge.* 1989;7:25–29.
9. Carmona R, Brennan K. Tactical emergency medical support conference (TEMS): a successful joint effort. *Tactical Edge.* 1990;8:7.
10. National Tactical Officers Association. Position statement on the inclusion of physicians in tactical law enforcement operations in the USA. *Tactical Edge.* 1994;12:86.
11. Heck JJ, Pierluisi G. Law enforcement special operations medical support. *Prehosp Emerg Care.* 2001;5:403–406.
12. American College of Emergency Physicians. Policy statement: tactical emergency medical support. *Ann Emerg Med.* 2005;45:108.
13. Greenstone JL. The role of tactical emergency medical support in hostage and crisis negotiations. *Prehosp Disast Med.* 1998;13:130–4.
14. Davis JD, Tang N. Efficacy of a federal law enforcement tactical medicine program following a catastrophic natural disaster: the DHS ICE SRT response to Hurricane Katrina. *Prehosp Emerg Care.* 2006;10:173–179.
15. Butler FK, Hagmann J, Butler EG. Tactical combat casualty care in special operations. *Mil Med.* 1996;161 (Suppl):1–16.
16. Butler FK. Tactical medicine training for SEAL mission commanders. *Mil Med.* 2001;166:625–631.
17. Eckstein M, Cowen AR. Scene safety in the face of automatic weapons fire: a new dilemma for EMS? *Prehosp Emerg Care.* 1998;2:117–122.