U.S. Fire Administration

Fire/Emergency Medical Services Department Operational Considerations and Guide for Active Shooter and Mass Casualty Incidents

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Message from the U.S. Fire Administrator

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This paper was developed as a fire and Emergency Medical Services (EMS) resource that can be used to support planning and preparation for active shooter and mass casualty incidents (AS/MCIs). These complex and demanding incidents may be well beyond the traditional training and experience of the majority of firefighters and emergency medical technicians. The U.S. Fire Administration (USFA) offers this report as one source of many available for the public safety community, but it takes into consideration the diverse local service levels available across America. In developing this paper, USFA consulted with individuals and groups engaged in fire and prehospital EMS, law enforcement, and hospital medical and trauma care. We also consulted with public safety organizations and numerous federal agencies.

If you have questions regarding this document, please contact the USFA at www.usfa.fema.gov.

Sincerely,

Ernest Mitchell
U.S. Fire Administrator
U.S. Fire Administration

Executive Summary

Background

More than 250 people have been killed in the United States during what has been classified as active shooter and mass casualty incidents (AS/MCIs) since the Columbine High School shootings in 1999. AS/MCIs involve one or more suspects who participate in an ongoing, random or systematic shooting spree, demonstrating the intent to harm others with the objective of mass murder.

It has become evident that these events may take place in any community impacting fire and police departments, regardless of their size or capacity. Local jurisdictions must build sufficient public safety resources to handle AS/MCI scenarios. Local fire/Emergency Medical Services (EMS) and law enforcement (LE) must have common tactics, communications capabilities and terminology to have seamless, effective operations. They should also establish standard operating procedures (SOPs) for these very volatile and dangerous situations. The goal is to plan, prepare and respond in a manner that will save the maximum number of lives possible.

Maximizing Survival

Extraordinary efforts on the part of local fire/EMS agencies and direct pre-planned coordination with LE is required during response to these events in order to rapidly affect rescue, save lives, and enable operations with mitigated risk to personnel. It is essential that local policies be put in place before AS/MCIs happen to ensure coordinated and integrated planning, preparation, response, treatment and care.

The recognition of AS/MCIs as a reality in modern American life has led to the assembly of a number of public safety organizations representing various disciplines to share and develop strategies for combating the problem. One group, convened by the American College of Surgeons and the Federal Bureau of Investigation in Hartford, Connecticut, developed a concept document for the purpose of increasing survivability in mass casualty shootings. The paper, The Hartford Consensus, describes methods to minimize loss of life in these incidents.

The Hartford Consensus identifies the importance of initial actions to control hemorrhage as a core requirement in response to AS/MCIs. Experience has shown that the number one cause of preventable death in victims of penetrating trauma is hemorrhage. Well-documented clinical evidence supports the assertion.

The Hartford Consensus focuses on early hemorrhage control to improve survival. These very practical recommendations include the critical actions contained in the acronym **THREAT**:

T - Threat suppression
H - Hemorrhage control
RE - Rapid Extrication to safety
A - Assessment by medical providers
T - Transport to definitive care

The THREAT concepts are simple, basic and proven. The Hartford paper points out that life-threatening bleeding from extremity wounds are best controlled by use of tourniquets. Internal bleeding resulting from penetrating wounds to the chest and trunk are best addressed through expedited transportation to a hospital setting.

Coordinated/Integrated Planning and Response

To increase survivability of victims, fire and EMS agencies must incorporate THREAT principles as SOPs. At a minimum, SOPs should include:

- Jointly developing local protocols for responding to AS/MCIs. Fire/EMS and LE should plan and train together.
- Planning for and practicing rapid treatment and evacuation, including who, what, when, where and how it will be carried out.
- Using the National Incident Management System (NIMS) and the Incident Command System (ICS). Accordingly, fire/EMS and LE should establish a single Incident Command Post (ICP) and establish Unified Command (UC).
- Fire/EMS, LE and all public safety partners planning and training together.
- Including AS/MCIs in tabletop and field exercises to improve familiarity with joint protocols. Regularly exercise the plan.
- Using common communications terminology. In addition to NIMS and ICS terminology, fire department personnel must learn common LE terms and vice versa. Share definition of terms to be used in AS/MCIs and establish a common language.
- Incorporating tactical emergency casualty care (TECC) into planning and training. Training must include hemorrhage control techniques, including use of tourniquets, pressure dressings, and hemostatic agents. Training must also include assessment, triage and transport of victims with lethal internal hemorrhage and torso trauma to definitive trauma care.
- Providing appropriate protective gear to personnel exposed to risks.
- Considering fire hazards secondary to the initial blast if improvised explosive devices (IEDs) are used.
- Considering secondary devices at main and secondary scenes.
- Determining how transportation to and communications with area hospitals/trauma centers will be accomplished.

AS/MCIs are volatile and complex. Research and history have indicated that the active risk at most incidents is over before first responders arrive on scene, or shortly thereafter, but they may also require extended operations. Extensive planning, recurrent training, and preplanned coordination are all required for optimal results. Coordinated involvement by the whole community is essential. The public, fire/EMS, law enforcement, medical transportation, and medical treatment facilities must be engaged cooperatively in order to maximize survivability and minimize deaths due to AS/MCIs.

Active Shooter and Mass Casualty Incident Check List			
X	**#**	**Responsible Party**	**Item**
			Preincident
	1	Local EMA/AHJ	Multiple victim incident EOP completed
			Incident
	2	LOG	CP established
	3	LOG	CP secured
	4	LOG	U/C and communications method established and communicated to all personnel and communications center
	5	U/C	UC/LE establishes goals and overall strategy; **Emphasize Rapid Triage, Treatment and Extrication**
	6	U/C	ICS established; command and general staff positions established
	7	OPS	Establish staging manager and staging areas
	8	U/C PIO	PIO staffed, JIS considered
	9	OPS	Fire, medical, and/or rescue branches or groups established in operations
	10	EMS	Establish casualty collection points, evacuation routes and LZs
	11	OPS	Size-up and determine resource requirement
	12	UC and LOG	Request required resources
	13	U/C	Notify hospitals to activate MCI plans
	14	OPS	Develop operational plan
	15	PLN	Start IAP process
	16	OPS	Aviation division established by air assets planned or airspace control required
	17	OPS	Safe, hard cover staging area established (multiples for discipline or geographically)
	18	LOG/ALL	Personnel have readily identifiable ID
	19	U/C	Duress code provided to all responders
	20	U/C	Plan approved by AHJ
	21	OPS	Accountability for victims and civilians involved — established
	22	EMS	Medical branch or group establishes rapid triage, treatment (include hemorrhage control), and transportation portals and sites
	23	EMS	Account for persons triaged, treated and/or transported (record and track locations)
	24	PLN	Provide for rotation and maintenance of on-scene personnel
	25	LOG	Provide refueling, battery charging, and replenishment of expendable materials
	26	PLN	Demobilization plan in place
	27	PLN	After action report process established
	28	PLN	ICS evaluation report plan in place
	29	PLN	Debriefing personnel planned
	30	LOG	Critical stress debrief action planned
	31	PLN	Personnel released
			Post-incident
	32	PLN	After action report prepared
	33	PLN	After action report completed
	34	U/C	After action report submitted to AHJ
	35	PLN	Improvement plan established
	36	PLN	Plan updates processed
	37	AHJ	Plan updates promulgated
	38	AHJ	Training and exercises based on plan updates

Fire/Emergency Medical Services Department Operational Considerations and Guide for Active Shooter and Mass Casualty Incidents

Background: Active Shooter and Mass Casualty Incidents (AS/MCIs) require extraordinary efforts on the part of the local fire/rescue and EMS agencies. Although these attacks usually end within a few minutes from the time they begin, the incident and response actions may play out over an extended period of time. Also, they may include a "direct threat" or "hot zone" with an ongoing active shooter(s); multiple casualties requiring extensive triage, treatment and transportation efforts; and large numbers of response personnel, bystanders and spontaneous volunteers.

Research from prior AS/MCIs has shown that casualties sustaining only minor injuries in most cases will self-evacuate and may seek care from responding fire, EMS and LE assets on the periphery of the event. This creates a diversion and causes a delay in medical response to the area with people who are significantly wounded. Conversely, minor injured patients may directly self-transport to nearby local hospitals, thus arriving and creating emergency department crowding before the transportation of the more severely injured. If not prepared, this "reverse triage effect," where the least injured enter the medical system first, can greatly impede response operations both on-scene and in the receiving hospitals. These incidents also require media engagement, demand organizing and managing large amounts of logistics, and require coordination among several disparate agencies, often from differing levels of government.

While the environment and circumstances will differ from incident to incident, there are an overarching series of actions that seem common to most, and awareness and planning will better position public safety agencies to effectively deploy when faced with an AS/MCI. The resultant monograph is intended to serve as a generic guideline in assisting fire/rescue and EMS agencies in preparing for and responding to AS/MCIs. While this document is intended to be comprehensive in scope, each agency will have to determine which parts of the information have value to their circumstances and those that will require additional development for local agency use. It is the intent of the USFA that this be a viable and dynamic document. As agencies engage in this work, we look forward to receiving comments, additional ideas, and suggestions for improvements in future editions.

Active Shooter and Mass Casualty Incidents (AS/MCI): This is a general term intended to cover active shooter incidents involving one or more subjects who participate in a random or systematic shooting spree, demonstrating their intent to continuously harm others. Since the purpose of this document is not focused on the LE operations, we will use AS/MCIs as the incident descriptor. AS/MCIs range from extensively planned terror-related events to unplanned, revenge-motivated or random events.

Successful command and control of AS/MCIs are based on multiple levels of planning and coordination including intra-agency among the fire/EMS response assets; interagency among all of the public safety and private sector responder agencies; externally with the facility personnel who provide expertise regarding facilities and technical matters; and regionally with the hospitals and receiving medical facilities. Using ICS provides a framework for managing the incident and should be utilized by the responders and incident infrastructure operators. Effective planning requires mutual goals, critical reviews, evaluation, revision and continued practice. Planning, coordination, communication and information sharing must be common if not daily practiced among all of the first responders to such an incident. Most often these agencies interact on routine calls on a daily basis providing for multiple, albeit less complex, interagency relationship building, communication and coordination. There must be a commitment to prepare and plan for such an incident before it occurs.

General AS/MCI Operational Principles: AS/MCIs are complex operations, and each requires the intricate coordination of people and other resources. They are extremely fast-evolving incidents. Each one is conducted real time under intense news and social media scrutiny and public interest. Several responding disciplines must work together to achieve the best possible outcome. Success in response to AS/MCIs requires prepared leadership, planning, communications, training and competent execution. Although overall operational priorities are unchanged from most routine incidents, for example, life safety, incident stabilization and property conservation, in AS/MCIs, the life safety and incident stabilization will be the nexus of the operation.

1. **ICS:** NIMS advocates the use of ICS. USFA has been a longtime supporter of the National Wildland Coordinating Group ICS. Public works, LE, military, education, and health agencies and associations have joined in supporting the use of ICS for all emergency incidents as well as special planned events. It is used by federal, state, tribal, territorial and local governments and is now embedded in most first responders' operations. As such, this document supports ICS use. ICS should be the command and control system implemented for all AS/MCIs. The impact of well-deployed and practiced use of the ICS among providers who are likely to respond together cannot be overstated. The notion of a "unified" command must be well understood and practiced by all for successful command and control.

2. **UC:** AS/MCIs are, at their most basic level, crime scenes that have injured people in need of treatment, rescue and expedient evacuation. Each incident is a primary LE event but requires coordination between the LE on-scene lead and the fire/rescue/EMS on-scene lead. UC provides the proper vehicle for command and control of AS/MCIs; therefore, responders should establish UC and a UC Post (UCP) as soon as possible. Fire and EMS command elements should recognize that the LE on-scene lead will be actively sending LE officers into the impacted area to directly engage the threat, secure the

perimeter to ensure the perpetrator doesn't evade, and to exclude inappropriate entry by additional perpetrators. Additionally, from almost the moment of arrival on-scene, the LE lead will be determining LE resource requirements, developing intelligence on the incidents, trying to identify the location and viability of the victim(s), and many other tasks. Thus, the fire and EMS commands should move to the LE Command Post (CP) and establish UC as planned.

Depending on local plans, there are several fire/rescue and EMS functions that can occur during the time frame that the LE lead will be making tactical decisions regarding operations prior to establishing threat zones for combined LE/EMS casualty rescue operations. These functions include establishment of fire/rescue and/or EMS branches or groups. Assist the LE on-scene lead by supporting the ICS functions that may not have been addressed yet. It is essential that UC protocols be pre-established, planned and practiced. Operational command and control of large-scale, multidiscipline/ multijurisdictional responses requires practice and exercise to become effective. The selection of the Operations Section Chief (OSC) position is usually assigned to the agency having the highest priority for achieving the UCP incident action plan objectives. Hence the initial selection of a LE officer for the OSC position with assistance from fire/EMS, as the deputy OSC, in accordance with a UC system.

3. **Plan for Treatment of Casualties:** It is the perpetrator's intended purpose to kill or injure people. Plan for casualties, when and where they will be treated, and how they will be evacuated from the point of wounding. **THREAT** principles (hemorrhage control, rapid extrication, assessment by medical, transport to definitive care), to improve survivability, should be an integral part of planning. Determine which agency or personnel will locate casualties, triage them, provide point of wounding medical stabilization, and/or remove them to a safe location. There should be preplanning discussions with medical directors, medical control and with the primary receiving medical centers regarding the principles of TECC. As the civilian equivalent of the military combat medical guidelines, the TECC guidelines account for the unique operational considerations and limitations of medical operations in high-risk conditions and prioritize and focus medical efforts to only what must be done to affect survival. Considerations should be made for all potential first responders, including LE patrol officers, to be trained to the basic tenets of TECC. Training, equipment and protocols around use of TECC for medical first responders should be explored, considered and implemented when feasible. The survival benefit of TECC is based on rapid application of point-of-wounding care, thus the equipment must be forward deployed for care to be immediately implemented. This requires that TECC equipment and supplies be carried with all other medical aid and equipment. In short, TECC equipment could become a valuable part of the standardized equipment for fire/EMS response assets.

Usually police resources in the initial moments of AS/MCIs are focused on locating, containing and eliminating the threat, thus the local fire/EMS resources should emphasize planning for rapid triage, treatment and extrication of the wounded. Tactical EMS support personnel are not a typical resource because they are usually very limited in number, not immediately available, and committed to their tactical team's assignment. This will preclude them from casualty care activities until the tactical team's objective is met. Considerations, planning and interagency training should occur around the concept of properly trained, armored medical personnel who are escorted into areas of mitigated risk, which are clear but not secure areas, to execute triage, medical stabilization at the point of wounding, and provide for evacuation or sheltering-in-place. Some jurisdictions accomplish this through the deployment of Rescue Task Forces (RTFs). Were this an ongoing ballistic or explosive threat, under the protection of LE officers these teams treat, stabilize and remove the injured rapidly while wearing ballistic protective equipment. An RTF team should include at least one advanced life support (ALS) provider. A few agencies are even exploring the use of LE for rapid patient removal. When possible, agencies should plan for warm zone, indirect threat-area medical operations to provide TECC-driven point-of-wounding care according to their resources and capabilities. Consider secondary devices at the main scene and secondary scenes in close proximity to the main scene. Such threats, if identified, would necessitate upgrading the area to one of direct threat requiring rapid evacuation of all medical personnel and surviving patients.

4. **News Media/Public Information Officer:** The community-specific Emergency Operations Plan (EOP) should have predetermined media connections, and the Public Information Officer (PIO) should be activated. Large extended events may necessitate the use of a joint information system. Media may appear quickly and may aggressively attempt to enter the CP, the exclusion zone, or other places to obtain direct surveillance and communications with survivors, family members and/or responders. They may also have aviation assets that may be co-opted for use in scene surveys but which should be controlled to ensure safety of the operation. If aviation units become problematic, the Incident Commander (IC) can request the Federal Aviation Administration to issue a restriction for the incident area air space.

   Strong consideration should be given for the use of a Joint Information System (JIS) that consolidates all agency and incident information flow from the multitude of agencies involved. A JIS further establishes a well-controlled information-sharing plan. Utilization of the Joint Information Center (JIC) may be considered to house the JIS efforts. Experience at previous AS/MCIs demonstrates the advantages of locating the JIC at a different location than the CP. DO NOT CO-LOCATE THE JIC AND THE ICP. The PIO must have a plan for media announcements regarding a staging area for parents and relatives of victims. In school shootings, the scene is quickly inundated with parents and bystanders. Considerations should be given to assigning PIOs or liaison officers to support families of casualties in handling media requests.

5. **EOP:** It is unlikely that any community can anticipate specific AS/MCI scenarios they may experience, but it is possible to develop a generic plan that provides a model to apply in almost every situation that arises. Each community needs to have a detailed and comprehensive EOP. Federal Emergency Management Agency (FEMA) Publication CPG 101, available at http://www.fema.gov/pdf/about/divisions/npd/CPG_101_V2.pdf, can be used to develop planning documents. The EOP may provide the framework for command and control at AS/MCIs in the general section, or more often, in an annex specific to AS/MCIs. In the absence of existing plans, the fire/rescue and EMS agency leadership should develop a plan for AS/MCI operations. The EOP must provide the framework for coordinating the activities of police, fire, rescue and other supporting agencies. Here are some things that should be considered in the development or revision of the AS/MCI annex to an EOP:

a. The EOP is a written document.

b. The EOP should reflect the multiagency, multidisciplinary nature of the incident.

c. The EOP establishes command, control and communications procedures.

- Use of common communications terminology is imperative.
- Personnel must understand common police terms to include:
  -- Cleared.
  -- Secured.
  -- Cover.
  -- Hot zone/warm zone/cold zone and related terms (red, green, etc.).
  -- Concealment.
  -- Rally points.
  -- Casualty collection points (CCPs).
  -- Other

d. In accordance with NIMS guidance, the EOP provides for the establishment of a single ICP.

e. The EOP plans for UC.

f. All emergency responders need to be apprised of LE plans and procedures, strategy, and tactics:

- LE personnel may bypass injured victims to subdue the perpetrators.
- LE protective gear will not protect them from all threats.
- LE personnel may attempt to enter an AS/MCI area without waiting for additional units in order to contain or neutralize an active threat.
- Most LE agencies will not wait for SWAT to engage active shooters.
- LE may request fire/rescue/EMS equipment to breach or force structural elements or to access roofs or other areas, or other needs. LE may request fire/rescue/EMS personnel to assist with operating specialized equipment.
- LE may request fire/rescue/EMS personnel to assist with victim triage, treatment and/or removal from the danger zone. LE should train to accompany personnel into areas of higher risk to perform these duties.

- LE should be aware of fire/rescue/EMS capacities, tactics and procedures.

g. The EOP establishes the preincident requirement for discipline and integrated training in use of the plan.

h. The EOP directs a coordinated public messaging process through the PIO and/or JIC.

i. The EOP should address aviation considerations including establishing helispots, landing zones, control of aircraft in the incident area, and excluding unauthorized aircraft. The EOP should include communications plans between aviation assets and incident operations and consider establishment of an Air Ops Branch.

j. The EOP must consider the use of additional community resources. Agreements for automatic and mutual aid should be formalized.

k. To the extent possible, in advance, designate staging areas, rally points, CCPs, and the CP. Consider designating primary, secondary and alternate positions in the event that one of your designated positions is in the "hot zone" and unusable. If possible, avoid obvious locations such as police or fire stations that may already be targets.

l. The EOP should consider specific target hazards and relocation and support areas in the preincident planning process. The incident may require facilities where outside persons will need to contact or interact with the "surviving victim population" (for example, schools, day care centers, hospitals, entertainment venues, hotels, and other public assembly areas) and identify and staff a family assistance center. The assistance center should be readily identifiable, large enough to hold and administratively process survivors as they are released to families, provide basic amenities, make referrals to post-incident counseling services, and have adequate traffic flow (buses may be used in large incidents) and parking. The family assistance plan includes custodial care, reunification, guardianship, accountability, mortuary service planning, and victim tracking.

m. The EOP should address the process for obtaining additional support and resources from external resources. Supporting agencies and resources should be integrated into the UC.
   - Liaison officers and systems should be planned, empowered and understood by the UC and supporting agency.
   - Management of planned and spontaneous volunteers must be addressed by UC and supporting agencies.

n. The EOP should be reviewed, endorsed and supported by the community policymakers, including medical and educational communities.

o. The EOP should be reviewed, exercised and updated regularly. After the AS/MCI, wherever located, consider the timeliness, completeness and efficacy of the EOP.

EOPs are only effective when they are exercised, updated and regularly used. Where possible, jurisdictions should follow the Department of Homeland Security's Homeland

Security Exercise and Evaluation Program. The improvement model used in this program will help the jurisdiction to enhance response readiness.

Interagency On-scene Practices: Many of the standard operating practices an agency uses in its day-to-day operations may be unchanged for AS/MCIs. Some will require reconsideration and perhaps modification. AS/MCIs usually involve a perpetrator trying to maximize casualties, so responders need to exercise due caution en route to the incident as well as after arrival. A single ICP is crucial. LE should always maintain a presence at the UCP to coordinate operations and ensure the safety of all personnel operating on the incident, even if the OSC assignment shifts from LE to fire/rescue/EMS.

a. Use a deliberate and cautious approach to the scene.
b. While the community-accepted practice has been staging assets at a safe distance (usually out of line-of-sight) until a perimeter is established and all threats are neutralized, considerations should be made for more aggressive EMS operations in areas of higher but mitigated risk to ensure casualties can be rapidly retrieved, triaged, treated and evacuated. Rapid triage and treatment are critical to survival.
c. Consider turning off emergency lights and warning devices before arrival. Remember many frightened citizens may be fleeing the event and are likely to act in an unsafe manner, so use extreme caution. Clarify this procedure with LE authorities since there have been reports wherein the perpetrator ends the threat when they hear or see public safety personnel or units arrive on-scene.
d. If exposed to gunfire, explosions or threats, withdraw to a safe area.
e. Consider/Investigate the use of apparatus' solid parts such as motor, pump, water tank and wheels as cover in the hot zone. Understand the difference between cover (protection from direct fire) and concealment (protection from observation).
f. Remove victims from the danger zone in a manner consistent with predetermined agency training and standards of practice. LE officers may bypass casualties in order to eliminate the threat.
g. Use internal CCPs for large area facilities with multiple casualties where evacuation distances are long. Point-of-wounding medical stabilization should occur prior to evacuation to the CCP, which should provide cover to the injured and responders and be secured by LE officers. Identify people at CCP for accountability and protection of staff.
h. For larger geographic incidents or incidents with travel barriers, consider the use of multiple staging, triage and other supporting setup areas.
i. Establish the single UC ICP in safe location. Secure the CP. Remember the CP may become a target.
j. Events with mobile perpetrators or sequenced attacks may necessitate CP relocation and additional protection or security.
k. Establish PIO and a JIS.
l. Establish UC with LE as lead operational component.

m. Establish ICS structure necessary to manage the incident. Consider fire and EMS branches in operations.
n. The UC/LE lead determines the type of operation and direct strategy.
o. LE "on-scene" radio report should not be construed to imply that the scene is secure or safe. A scene is not considered secure until a detailed deliberate search of the entire area is concluded.
p. Stage fire/EMS resources, identify and prepare personnel for operations in areas of higher risk, if appropriate, and await instruction. The first unit/responder in staging capable of managing staging until the appointment/arrival of a designated staging officer should assume that responsibility.
q. The staging area should provide hard cover and concealment from perpetrators.
r. Minimize people exposed to unnecessary risk. Provide appropriate protective gear to personnel operating in indirect threat areas.
s. If bystanders become hostile, extricate yourself. Advise UC.
t. Have a "duress code" known to all responder personnel.
u. UC should have the communications center alert area hospitals. UC may ask for activation of their Multiple Casualty Incident Plan. Some casualties may "self-present," and emergency rooms need to be aware of the situation.
v. Consider early ordering for additional triage, treatment and transportation resources. This should be detailed in a preplan established order by predetermined resource needs based on the extent, scope and anticipated duration of the event.
w. Use identification that is discernible from a distance. Police snipers at Columbine were unable to identify a fire officer and treated him as a suspect. Be aware that responders may be wearing uniforms and civilian attire, so exercise caution in identifying individuals.
x. Work as teams or in pairs as a minimum. If possible, assign an extra responder to serve as a team spotter. Their role is to observe, identify and avoid threats while the balance of the team executes their tactical assignment. This is similar to some of the safety precautions used in wildland/interface firefighting.
y. Have medics and personnel who might be in situations requiring indirect threat-area operations for point-of-wounding care train to the tenets of TECC for guidance on prioritization and familiarization with the management of ballistic and explosive wounds. Departments should train and equip fire/rescue/EMS personnel to work with LE within areas that are clear but not secure, representing an indirect threat risk, for immediate lifesaving interventions. The RTF concept is designed for this purpose.
z. Mental and physical health for responders remains a tactical consideration throughout the incident. It is possible that some of the responders know the aggressors and/or victims. The UC should determine how to utilize or relieve these responders.

aa. Assign extra communications personnel for the CP to monitor inbound intelligence from responders. These types of incidents provide a tremendous amount of radio traffic with real time updates coming from fleeing civilians and responders. Due to the critical time factors involved in getting intelligence back to the entry team personnel, extra communications personnel should be allocated to receive, analyze and rebroadcast (per the UC) the many data transmissions received.

Operational Practices En Route and On-scene: As a part of the initial assignment or for a senior officer en route to AS/MCIs, there are several additional considerations. These may include:

a. Obtaining the maximum information/intelligence en route. If closed circuit camera systems allow visual monitoring of the area or specific elements, they should be utilized.
b. On-scene, verifying what you can as a part of the size-up.
c. Determining threats to response personnel as well as additional civilians.
d. Obtaining as much information as possible from persons who have fled the event. This is usually done by LE personnel, but may also be done by fire/EMS, if in certain situations. Fire/EMS personnel must provide LE with any intelligence/information obtained during patient/casualty contact or treatment. Medical facilities should also be trained to provide any non-Health Insurance Portability and Accountability Act information to LE.
e. Considering IED possibility or other secondary devices. This speaks to the consideration of a second level of staging for the balance of responding resources until they are needed and can be advanced in safely.
f. If first on-scene, ensuring LE and other necessary resources are en route.
g. Expanding alarm as required, but using smallest response appropriate. Ideally, to the extent possible, this should be preplanned by the number of anticipated victims.
h. Identifying a safe staging area for inbound resources.
i. Establishing command (done by initial officer).
j. Establishing CP as soon as possible.
k. Using single CP to establish UC.
l. Using PIO/JIS function for release of information. Exercise caution regarding releases to avoid compromise of operations.
m. Accounting for victims on the scene, those who may be relocated to safer or reunion areas, and those transported to medical or other facilities. (Accounting by name, if practicable, or by gross numbers should be protected information). Most agencies will have explicit policies in that regard and have noted the tracking location of children to be essential.

n. Accounting for response personnel. Establish an accountability process for all incident responders to the incident. Use a check-in/-out procedure.
o. Communicating all movement on the incident, especially if the threat has not yet been contained, to the ICP and units in the operations section.
p. Calling for resources trained in AS/MCIs necessary to staff ICS to the appropriate level. This speaks to having an adequate number of ICS-trained and capable personnel to expand to the incident size. Reassess every 30 minutes or during periods of low activity.
q. Basing the assignment of staff on qualifications, available resources, and the need for extended operations periods.
r. Considering the possibility of spontaneous volunteers attempting to participate in the incident. Determine how/if they may be used, informed, controlled and dismissed. In AS/MCIs it is possible some volunteers will be armed. Consider this in planning.

Post-incident/Demobilization: While stand down is an appropriate time to decompress and refresh, it also is the best time to capture staff recollections of specific events that may not have been well documented. Obtain responder listings and tasks performed. This is also the time to account for equipment, pack supplies, complete records, and release staff to duty or home. A demobilization plan will include member information regarding post-incident briefings, stress management briefings, and family support information.

a. Establish and manage a formal unit-release process.
b. Collect incident management records and unit logs.
c. Determine and announce an incident debriefing strategy (UC).
d. Assign a debrief team to prepare a report of the incident.
e. Determine and announce a stress debrief plan.
f. The PIO position may stand down, returning that responsibility to the IC. Based on the size of the incident, there may be a need for ongoing support of this function.
g. Set up an EOP AS/MCI plan review and evaluation team (UC).
h. Prepare evaluations by position (UC).
i. Close down the CP.
j. Prepare and review the EOP AS/MCI report and evaluation (UC or command group, the community policymakers, and others as determined by policy). The report may be sensitive and involve ongoing investigation. It should be reviewed by appropriate legal authorities prior to release based on agency policy.
k. Assure appropriate stress debriefing and management resources for all personnel.

Media/Information Resources

There is much more valuable information to be learned from past incidents and the best practices created by those who have experienced them. You are encouraged to go to the following locations for more information.

Note: We are providing the following information and links to third-party sites for your reference. USFA does not endorse any nongovernment publication, website, company or application.

- U.S. Department of Homeland Security website: Active Shooter Preparedness, http://www.dhs.gov/active-shooter-preparedness.
- Hamilton, Steve C., September 2012, Fire Engineering, pp. 26-35.
- Vernon, August, June 2012, Fire Engineering.
- Video article, Fire Ground Commentary — Mass Shootings, October 18, FireRescue1News Chief Rob Wylie.
- Krebs, Dennis R., When Violence Erupts: A Survival Guide for Emergency Responders, Jones & Bartlett, 2003.
- Renaud, Cynthia E., (2010), Making Sense in the Edge of Chaos: A Framework for Effective Initial Response Efforts to Large-Scale Incidents, thesis, Naval Postgraduate School, San Diego, CA.
- U.S. Fire Administration, (2012), Fire Service Operations for the Southeastern Tornadoes: April 2011, Emmitsburg, MD.
- U.S. Fire Administration and TriData Corporation, 1999, Wanton violence at Columbine High School, April 20, 1999: special report, (Emmitsburg, MD), Federal Emergency Management Agency, U.S. Fire Administration.
- Baldanza, Mauro V., 2005, Fire department response to "active shooter" incidents, Fire Engineering.
- Ludwig, Gary G., 2012, The active shooter: a special challenge — plan and practice your fire-EMS response to mass-casualty shootings, FIREHOUSE.
- National Fire Academy – 2012 Field Operations Guide.
- FIRESCOPE's Field OPS manual, MCI section.
- National IMS Consortium Model Procedures Guide, 2008 Book 1, Multi-Casualty section with appendix
- Firefighter Life Safety Initiative 12, www.lifesafetyinitiatives.com/12/FLSI12_FinalReport.pdf.
- Jones, Jeff, NIMS Field Guide, Informed, 2006.
- Swanson, Eric, Law Enforcement Field Guide, Informed, 2004.
- Glarum, Jan and Swanson, Eric, Homeland Security Field Guide, Informed, 2004.
- Federal Emergency Management Agency — Incident Management Handbook: FEMA B-761/Interim, 2009.
- FIRESCOPE California, Fire Service Field Operations Guide, ICS 420-1, Incident Command Systems Publication, 2001.
- Website for the Committee for Tactical Emergency Casualty Care www.C-TECC.org.

- Callaway, David W., Smith, E. Reed, Cain, Jeffrey, et al, Tactical Emergency Casualty Care (TECC): Guidelines for the Provision of Pre-hospital Trauma Care in High Threat Environments, Journal of Special Operations Medicine, summer 2011, Volume 11(3): p. 1-20.
- Smith, E. Reed, Iselin, Blake, McKay, W. Scott, Towards the Sound of Shooting: The Arlington County Fire Department Rescue Task Force, Journal of Emergency Medical Services, December 2009.
- Joint Committee to Create a National Policy to Enhance Survivability From a Mass Casualty Shooting Event, Hartford Consensus, April 2, 2013.
- Joint Committee to Create a National Policy to Enhance Survivability From Mass Casualty Shooting Events, Hartford Consensus II, July 11, 2013.
- Committee for Tactical Emergency Casualty Care, http://c-tecc.org/c-tecc-announcement-iaff-position-statements-hartford-consensus-document.
- IAFF Position Statement, http://www.iaff.org/Comm/PDFs/IAFF_Active_Shooter_Position_Statement.pdf.
- DHS Active Shooter: How to Respond, http://www.dhs.gov/xlibrary/assets/active_shooter_booklet.pdf.
- The FBI, http://www.fbi.gov/about-us/cirg/active-shooter-and-mass-casualty-incidents.
- Urban Fire Forum/Metropolitan Fire Chiefs Association Active Shooter Position Paper.

If you have questions regarding this white paper, please contact the U.S. Fire Administration.

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TACTICAL MEDICINE

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Operational Programs
AND
Standardized Training Recommendations

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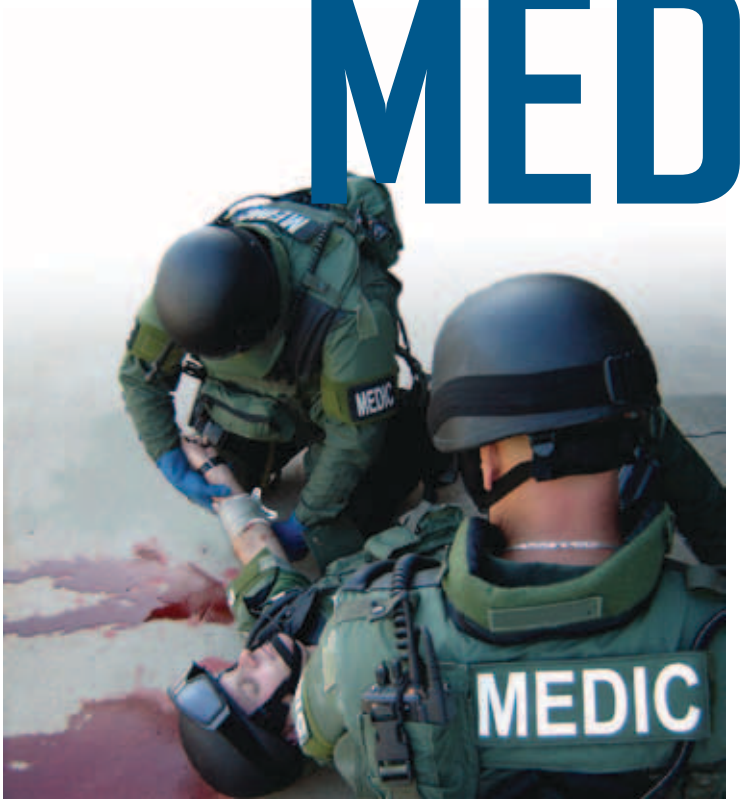
TACTICAL MEDICINE



Operational Programs AND Standardized Training Recommendations

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Tactical Medicine
Operational Programs and Standardized Training Recommendations

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The Mission

- . . . . . .of the **California Commission On Peace Officer Standards and Training (POST)** is to continually enhance the professionalism of California Law Enforcement in serving its communities.

- . . . . . .of the **Emergency Medical Services Authority (EMSA)** is to ensure quality patient care by administering an effective statewide system of coordinated emergency medical care, injury prevention, and disaster medical response. The EMS Authority is also responsible for leadership in developing and implementing EMSA systems throughout California and setting standards for the training and scope of practice of various levels of EMSA personnel.

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This guideline manual for ***Tactical Medicine Operational Programs and Standardized Training Recommendations*** could not have been developed without the combined efforts of a number of dedicated individuals and interested parties.

POST and the Emergency Medical Services Authority (EMSA) would like to extend its gratitude to the law enforcement and emergency medical service professionals who gave of their time and expertise to contribute to the success of this project.

Representatives of the following stakeholder groups participated in this project:

- California Ambulance Association (CAA)
- California Association of Tactical Officers (CATO)
- California Emergency Medical Services Authority (EMSA)
- California Fire Chiefs' Association (CFCA)
- California Highway Patrol (CHP)
- Emergency Medical Directors' Association of California (EDMAC)
- Emergency Medical Services Administrators' Association (EMSAAC)
- Huntington Beach Police Department
- Illinois Department of Public Health – Tactical EMS Committee
- Los Angeles County Sheriff's Department
- Orange County Fire Authority (OCFA)
- Palm Springs Police Department
- San Diego Police Department
- San Francisco Police Department
- Sunnyvale Department of Public Safety

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Foreword

The tactical incident response environment presents unique challenges to law enforcement personnel and for personnel providing emergency medical care and support services in that environment. Tactical medical care providers must have a clear understanding of and consideration for law enforcement response and tactics and the mission-specific objectives of a tactical operation when planning for and providing medical support. The primary goal of tactical medicine is to support and assist a tactical team in accomplishing its mission during a deployment or response to a critical incident.

Penal Code Section 13514.1 directed the Commission to develop and to disseminate guidelines and standardized training recommendations for law enforcement officers, supervisors, and administrators, who are assigned to perform, supervise, or manage Special Weapons and Tactics (SWAT). Those guidelines were released in 2005.

Significant progress, growth, and advancement in tactical medicine training and education have occurred over the last two decades, and this has resulted in the development of specific training programs for tactical medicine providers and operators. The *Tactical Medicine Guidelines for Operational Programs and Standardized Training* address critical legal and practical issues of the tactical medicine component of SWAT operations identified in the *POST SWAT Guidelines*.

Additionally, the State of California Emergency Medical Services Authority (EMSA) provides oversight and regulation to the provision of emergency medical care and EMS training. The partnership between POST and EMSA in the development of the *Tactical Medicine Operational Programs and Standardized Training Recommendations* manual provides an essential link between the critical nature of law enforcement and emergency medical care. These recommendations reflect contemporary thinking and were jointly developed by POST, EMSA, and dedicated law enforcement and medical professionals statewide.

Questions concerning the core competencies and training recommendations may be directed to Special Consultant Ken Whitman at (916) 227-5561 or by email to Ken.Whitman@post.ca.gov. Questions pertaining to medical certifications and training requirements may be directed to EMSA at (916) 322-4336.

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Introduction

This guide is designed to provide baseline development and implementation standards for Tactical Medicine programs as described in the SWAT Guidelines approved in 2005. The California Emergency Medical Services Authority (EMSA) is responsible for setting the statewide medical standards utilized in these Guidelines. As such, this guide is intended to serve as a template for operational programs that are developed by any public safety agency in California, and to serve as the minimum standard for initial tactical medicine training. The POST *SWAT Operational Guidelines and Standardized Training Recommendations* (2005) identified the need for tactical medicine as an integral part of the law enforcement tactical team. Under Section 5, Planning, the guidelines state:

5.5 SWAT teams should incorporate medical emergency contingency planning as part of the SWAT operational plan.

► Where resources allow, consideration should be given to integrating Tactical Emergency Medical Support (TEMS) personnel within the structure of the SWAT team.

Additionally, a Basic SWAT Team Operational Component has been identified as "medical support" under the Command and Control Element in the guidelines.

- This guide is also meant to serve as a companion document to the POST *SWAT Operational Guidelines and Standardized Training Recommendations* (2005). It describes the critical role that tactical medical planning and threat assessment plays in the overall contingency planning as part of the SWAT operational plan.

- The public safety agency developing a tactical medicine operational program should conduct a needs assessment to determine the level of emergency care required by the SWAT team to support the mission and operations. The operational program should address medical oversight and coordination with the local EMS agency, medical direction, use of Emergency Medical Technicians (EMTs), paramedics and other advanced life support personnel, and minimum training and equipment standards.

- The agency should develop policies and procedures for medical support during tactical operations. The assignment and/or deployment of any emergency medical support personnel during a tactical response shall be at the sole discretion of the agency or department in accordance with established policies and operational procedures.

- Legal authority and proper training to carry a firearm is a prerequisite to arming emergency medical support personnel. Armed medical support personnel must have statutory authority to carry a firearm and should be trained and tested to the standard for law enforcement personnel.

- Approved tactical medicine training programs, which provide initial and refresher or update tactical medicine training to personnel, shall adhere to the training guidelines and standards outlined in this document. The goal of this guidelines manual is to describe minimum core competencies and define the written and skills testing necessary to achieve the standards prescribed by POST and EMSA.

1.0 Definition of Tactical Medicine

TACTICAL MEDICINE: ***Defined as the delivery of medical services for law enforcement special operations.***

1.1 . . . . . A comprehensive Tactical Medicine Operational Program that is developed by a law enforcement agency should have the following seven components as part of its planning, operations, and evaluation process:

1) Medical Oversight
2) Medical Contingency Planning
3) Operational Support/Tactical Emergency Support (TEMS)
4) Quality Improvement
5) Team Health Management
6) Training and Education
7) Medical Equipment Acquisition and Maintenance

1.2 . . . . . Tactical Medicine operational programs should be developed to ensure that all components are developed to a level that allows for full integration within the SWAT operational program.

1.3 . . . . . Identification of personnel to lead, manage, and coordinate a tactical medicine operational program are required. Additionally, trained Tactical Emergency Medical Support (TEMS) personnel to provide operational support are necessary. Overall, strong medical leadership should be incorporated within the operational program.

1.4 . . . . . Operational tactical medical support programs also provide a necessary and significant linkage between law enforcement personnel and EMS services during dangerous or sustained operations.

2.0 Tactical Medicine Operational Programs

NOTE: Blue text denotes POST or EMSA statutory or regulatory language.

POST and EMSA recommendations specific to operational programs for tactical medicine are outlined below. The word ***"shall"*** denotes a statutory or regulatory requirement; the word ***"should"*** denotes a recommended guideline or best practice.

2.1 Tactical Medicine Programs

(a) A law enforcement agency with a tactical medicine program should establish policies and procedures for the planning, training, operation, and evaluation of its program. These policies and procedures shall address the minimum tactical medicine components described in these guidelines.

(b) A law enforcement agency with a tactical medicine program should:

(1) Provide tactical emergency medical services, as necessary, to the law enforcement agency on a continuous twenty-four hours per day basis, unless otherwise determined jointly by the local EMS agency and the law enforcement agency, in which case there shall be adequate justification for the exemption.

(2) Utilize and maintain telecommunications, including communications with base hospitals, when appropriate and in accordance with local policies and procedures.

(3) Maintain a minimum equipment and supply list, a drug and solution inventory, and the equipment and supplies commensurate with the authorized scope of practice of the tactical emergency medical personnel.

(4) Comply with all applicable Federal and State regulations and local medical policies and procedures.

(5) Be responsible for assessing the current knowledge of the tactical emergency medical services personnel in local policies, procedures, and protocols, and for skills competency.

(c) An agency establishing a tactical medicine program should develop and establish a written tactical medical policy, to include but not be limited to:

(1) Tactical medical training required of medical support personnel, utilizing a POST-certified and EMSA-approved Tactical Medicine course or its equivalent.

(2) Level of medical licensure or certification required by individual tactical medical personnel

(3) Additional medical training requirements as required by law or agency policy

(4) Deployment of tactical medical personnel pursuant to agency policy and protocols

(5) Determination of peace officer status of tactical medical personnel

(6) Arming of tactical medical personnel

(d) No law enforcement agency shall advertise itself as providing tactical medicine services unless it does, in fact, routinely provide these services as part of a tactical medicine operational program that meets the minimum requirements of these guidelines.

(e) No responding tactical unit shall advertise itself as providing paramedic services unless it does, in fact, provide these services and meets the requirements of subsection (a) of this section.

(f) Tactical medicine programs and their medical personnel shall be integrated into the local EMS system, in coordination with the local Emergency Medical Services (EMS) Agency.

(g) Tactical Medicine operational programs should designate the following personnel:

(1) Tactical Medicine Program Director

At a minimum each tactical medicine program should have a program director that has tactical medicine training, as defined within the POST and EMSA guidelines in Section 5.

(2) Tactical Medicine Medical Director

A Tactical Medicine program should have a Medical Director, who shall be a physician currently licensed in California, to provide medical direction, continuous quality improvement, medical oversight, and act as a resource for medical contingency planning, when necessary. The Medical Director shall have sufficient knowledge of tactical medicine to oversee the program and may also serve as the program director.

(3) Personnel Trained in Tactical Emergency Medical Support (TEMS)

At a minimum, all personnel who are tactical medical providers should have certification at the basic life support level. Optimally, tactical medical programs should utilize personnel licensed or certified at the advanced life support level. This may include any combination of physicians, mid-level providers, registered nurses, paramedics, and Advanced EMT/EMT-IIs operating under their authorized scope of practice. See Appendix A for scope of practice. All personnel must have tactical medical training, as defined within the POST and EMSA guidelines.

(h) Agencies should develop policies regarding the use of firearms by tactical medical personnel. It is a desirable goal to enable each tactical and medical officer to safely function as a team member. It is recognized that liability concerns are a challenging issue, and each department should individually evaluate their needs.

Legal authority and proper training to carry a firearm is a prerequisite to arming emergency medical support personnel. Armed medical support personnel must have statutory authority to carry a firearm and should be trained and tested to the standard for law enforcement personnel.

2.2 . . . . . Tactical Medicine Contingency Planning

Each Tactical Medicine Operational Program that is developed by a law enforcement agency should have the following seven components as part of its planning, operations, and evaluation process.

2.2.1 . . . . . **Medical Oversight.** Medical oversight refers to advice and direction provided by the program director and/or the Medical Director to trained tactical medical personnel who provide medical care in all aspects of tactical operations.

2.2.2 . . . . . **Medical Contingency Planning.** Medical Contingency Planning is the inclusion of medical personnel in pre-event planning and preparation. Tactical medical personnel should participate in mission planning and risk assessment to ensure appropriate assets are available for the identified mission.

Considerations should include appropriate resources and trained medical personnel, and may include, but are not limited to ground ambulance standby, air ambulance availability, and transport to specialized hospital facilities, including trauma centers.

2.2.3 . . . . . **Operational Support (TEMS)**. TEMS refers to Tactical Emergency Medical Support, which is the operational support component of Tactical Medicine. If available, tactically trained medical personnel should be deployed and/or assigned and utilized during SWAT operations.

The deployment and/or assignment of any emergency medical support personnel during a tactical response shall be at the sole discretion of the agency or department in accordance with established policies and operational procedures.

This operational unit is a designated group of medical personnel, preferably at the advanced life support level, specifically selected, tactically trained, and equipped to provide medical care during critical law enforcement incidents and planned events.

2.2.4 . . . . . **Quality Improvement and Post Incident Analysis**. Quality improvement is the active review of medical involvement in tactical operations for the purpose of improved patient care and operational outcomes. The Medical Director provides continuous quality improvement oversight. Tactical medical personnel, if deployed, should participate in post-incident analysis and debriefings. Appropriate documentation of patient contact must be completed in accordance with State regulations and local policies.

2.2.5 . . . . . **Team Health Management**. Team health management is a critical component of operational effectiveness. The tactical medic can be a health advocate and make recommendations for physical conditioning, diet, mental health, and preventive care. A physician, mid-level provider, or paramedic can be a resource as a component of the tactical medicine program to enhance the total well being of the SWAT team members.

2.2.6 . . . . . **Training, Education, and Sustainability**. Tactical medical team support personnel should be assigned or deployed with a SWAT team only after successful completion of a POST-certified and EMSA-approved Tactical Medicine Course, or its equivalent as determined by the agency. Appropriate training, prior to deployment, should be incorporated into agency policy and procedures.

Tactical Medicine team personnel should participate in documented and verifiable training to maintain individual and team core competencies as determined by the agency to support the SWAT team mission and operations. Ongoing training in the respective tactical medicine core competencies should be incorporated into agency policy and procedures.

Tactical Medicine recurrent Core Competencies fall within three general categories:

- Maintaining skill proficiencies and professional licensures/certifications
- Use of Medical Equipment and Applications
- Medical care decision-making in a tactical environment

Tactical medicine personnel and supervisors, managers, and directors should attend 24 hours of POST-certified or EMSA-approved regular update or refresher tactical medicine training, or its equivalent as determined by the agency, which are specific to the core competencies, every two years. Refresher training can be achieved through continuing education or an approved refresher course in accordance with standards incorporated into agency policy and procedures.

The Tactical Medicine program should include training to non-medical team members in basic medical care procedures in a tactical environment. All tactical medical personnel shall maintain state licensure or certification and local accreditation as appropriate for skill level of the individual.

2.2.7 . . . . . **Medical Equipment Acquisition and Maintenance**. Tactical medical providers should be adequately equipped to meet the specific mission identified by the agency. The tactical medical provider should be equipped with the medical supplies and equipment appropriate for the level of licensure or certification.

Medical equipment should be agency-issued and approved by the program director and/or Medical Director, including any modifications, additions, or attachments.

Equipment should be maintained regularly to ensure it is in good working order prior to deployment. This should include regular checks of inventory as well as its functionality. Expiration dates of supplies, including medications, should be checked regularly.

Each operational tactical medicine program should establish a standardized list of medical equipment and supplies for each level of team member to include:

- Individual Tactical Team Member
- TEMS, Basic Life Support (BLS)
- TEMS, Advanced Life Support (ALS)

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3.0 Tactical Medical Planning and Threat Assessment

3.1 Medical Plan Initiation

Agencies should initiate a medical plan based on the operational mission. As the tactical mission is being identified the medical support personnel should begin to assemble a medical plan that can be integrated into the overall tactical plan.

3.2 Medical Plan as a Resource

The medical plan is an integral part of the tactical operation and is an effective resource during any response to a critical incident. Medical support plans should be developed before any additional medical support personnel arrive at an incident and should involve consultation with the tactical operation chain of command. The medical plan includes medical intelligence, tactical medical logistics, medical resources, and coordination at all levels with the overall operational mission and response plan.

3.3 Medical Threat Assessment

A medical threat assessment should be conducted based on available intelligence and information on the nature of the response.

3.4 Incorporation of Medical Threat Assessment

The medical threat assessment should be incorporated, into the tactical plan for the specific mission. When integrated into the tactical plan, the medical threat assessment and the medical support personnel can be a significant resource in support of the Tactical operations commander.

3.5 Medical Plan for Each Response

The Medical Plan should be one of the elements that is identified and considered for each response to a critical incident. While everything cannot be planned, proper planning and training plays an important and critical role in being able to provide an effective resource that contributes to the successful resolution of a critical incident response.

4.0 Tactical Medicine Operational Equipment Recommendations

The Medical Director, in conjunction with the local EMS agency, should determine appropriate medications, supplies, and equipment. Decisions should be based upon the level of personnel and their appropriate scope of practice. POST and EMSA do not endorse any specific products or brands.

The lists on the following pages identify the applicable items for each type of tactical emergency teams.

4.1 Individual Tactical Team Member

Each individual on a team should minimally carry the following equipment, or have it readily accessible.

INDIVIDUAL TEAM MEMBER	
Quantity	Type of Equipment
1	Medical Bag
1	Airway (nasopharyngeal, 28f size with water-based lubricant)
1	Chest Seal
1	CoTCCC-Recommended Tourniquet System
1	Emergency Trauma Dressing
2	Gauze (compressed, vacuum-sealed)
6	Gloves (trauma, latex-free, 3 pair)
1	N95 Mask (PPE Kit)

4.2 TEMS – Basic Life Support

Basic Life Support Equipment should include the following items and should be available to the team at the Emergency Technician level.

BASIC (EMR AND EMT)	
Quantity	Type of Equipment
1	Medical Bag
2	AED Patches
2	Airway (nasopharyngeal, 28f size with water-based lubricant)
1	Bag-Valve Mask (collapsible)
1	Blanket (self-heating or self-warming)
1	Cap (hypothermia prevention)
2	Chest Seal
1	Compact AED (immediately available, waveform display preferred)
2	CoTCCC-Recommended Tourniquet System
2	Dressing (sterile, large absorbent roller-type)
2	Elastic Compression Bandage
2	Emergency Trauma Dressing
4	Gauze (compressed, vacuum-sealed)

continues

BASIC (EMR AND EMT) *continued*	
Quantity	Type of Equipment
2	Gauze (petroleum, 3” x 18”)
10	Gloves (trauma, latex-free, 5 pair)
1	Light (tactical exam — consider helmet-mounted and handheld)
1	Litter (evacuation, tactical, or soft litter)
1	N95 mask (PPE Kit)
1	Protective Eyewear (wraparound, ballistic grade)
1	Rescue Blanket (disposable — consider thermal reflective material)
1	Shears (trauma)
2	Splint (semi-rigid, moldable)
1	Stethoscope and blood pressure cuff
1	Suction (hand-held)
1	Tactical Casualty Care Assessment and Treatment Card
1	TacMed BLS Equipment Pack Inventory Sheet
1	Tape (surgical, adhesive, 2”)
6	Triage Tags

4.3 TEMS – Advanced Life Support

Advanced Life Support Equipment should include the following items in addition to those listed in the BLS recommendations.

ADVANCED LEVEL PARAMEDIC AND PHYSICIAN	
Quantity	Type of Equipment
1	Airway (perilaryngeal/supraglottic, size 4 King LT or 37F combitube)
1	Bougie (flexible intubation guide)
2	Endotracheal Tube with Stylette (8 mm cuffed)
1	End Tidal CO2 Detector (colormetric)
1	ETT Restraint
1	ETT Verification Device
1	Intraosseous Device (adult and pediatric)
2 ea	Intravenous Access Catheter (size 14-20)
2	Hemostatic Agent (may be considered)

continues

ADVANCED LEVEL PARAMEDIC AND PHYSICIAN *continued*	
Quantity	Type of Equipment
2	IV Constriction Band
2	IV Fluid x 500 ml with IV tubing (normal saline)
2	IV Start Kits (or necessary components)
1	Laryngoscope Kit
2	Lock (IV, saline, tactical)
1	Needle Cricothyroidotomy Kit
2	Needle Decompression Kit (3.25” needle)
4	Pre-Hospital Field Forms
1	Pulse Oximeter (may be considered)
1	Saline Flush (50 ml)
1	Surgical Cricothyroidotomy Kit
2	Syringe (10 cc)
1	TacMed ALS Equipment Pack Inventory Sheet

ADVANCED LEVEL PHARMACEUTICALS	
Quantity	Type of Drug
1	Acetaminophen (Tylenol, 1 bottle)
1	Aerosolized Beta 2 Specific Bronchodilator (i.e., Albuterol MDI)
1	Aspirin (chewable, 80 mg, 1 bottle)
2	Atropine Sulfate (1 mg)
1	Dextrose 50% (25 G, pre-load)
1	Diphenhydramine (50 mg)
1	Epinephrine (1:1000 1 mg)
1	Epinephrine for Injection (1:10,000 1 mg)
1	Glucagon (1 mg/unit)
1	Midazolam (Versed, 20 mg) or Diazepam (Valium, 20 mg)
2	Morphine Sulfate (10 mg/ml)
1	Naloxone (2 mg)
2	Nerve Agent Antidote Auto-Injector (Mark I)
1	Nitroglycerine (1/150 gr)
1	Ondansetron (4 mg)

5.0 Tactical Medicine Training Programs

Guilelines specific to operational programs for tactical medicine are outlined below.

5.1 Approved Tactical Medicine Training Programs

(a) The purpose of a Tactical Medicine training program shall be to prepare individuals to render prehospital basic life support and advanced life support at the scene of an emergency, under tactical law enforcement conditions, at the level their licensure or certification allows.

(b) Tactical medicine training may be offered by training programs that are pre-approved by POST and EMSA. Eligibility for program approval shall be limited to:

(1) Accredited universities and colleges including junior and community colleges, and school districts,

(2) Medical training units of a branch of the Armed Forces, including the Coast Guard of the United States,

(3) California enforcement agencies,

(4) Government agencies, including public safety agencies,

(5) Private training programs, when affiliated with a law enforcement or public safety agency,

(6) Local EMS agencies.

5.2 Procedure for Training Course Approval

The following POST regulations address procedures for training course approval:

(a) Eligible training presenters may submit a Course Certification Program request for Tactical Medicine course approval to POST pursuant to Regulations 1005 (f), 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1070, 1084 (b) and (c), and Commission Procedures D-2 and D-6. The Course Certification Package must be submitted electronically using the POST Electronic Data Interchange (EDI) system.

(b) In addition to those items listed in subdivision (a) POST and the EMS Authority shall assure that a training course meets the following criteria in order to approve that presenter or agency as qualified to conduct a tactical medicine training course:

(1) POST and EMSA shall ensure that a training program and course has designated a liaison to the local EMS agency for the county in which the training is being conducted.

(2) Consultation with the local EMS agency for the county in which the training is located if the presenter or agency is developing an EMS orientation portion of the tactical medicine course.

(3) Course contains all required minimum hours and topical areas as required in POST regulations and procedures.

(4) Course contains an approved safety policy as required by POST regulations and procedures.

(5) Contains a list of supplies, equipment, and materials sufficient to conduct a training program to ensure that training objectives can be met. A sample training program equipment list is available on the POST website.

(6) The name and qualifications of the program director, program clinical coordinator, tactical coordinator, and principal medical instructors.

(7) Instructor resumes must describe all relevant experience and qualifications to instruct in either the tactical or medical portions of the course as required by POST and EMSA regulations and procedures. POST regulations and procedures for Course Certification may be found at: www.post.ca.gov/about/TDBCourseCertProcess4web.doc

5.3 Instructional Staff

Each tactical medicine training program shall provide for the functions of administrative direction, medical quality coordination, tactical coordination and instruction, and actual program instruction. Nothing in this section precludes the same individual from being responsible for more than one of the following functions if so qualified by the provisions of this section:

(a) Each tactical medicine training course shall have a program director who shall be qualified by education and experience in methods, materials, and evaluation of instructional materials to be used in the course.

(b) Duties of the course director, in coordination with the course clinical coordinator and tactical coordinator, shall include but not be limited to:

(1) Administering the training program and course.

(2) Developing course content pursuant to POST and EMSA regulations and procedures.

(3) Developing all written examinations and the final skills examination.

(4) Coordinating all clinical and field activities related to the course.

(5) Approving the principal instructor(s) and teaching assistants.

(6) Signing all course completion records.

(7) Assuring that all aspects of the tactical medicine training program are in compliance with these guidelines and other related laws.

(8) Maintaining records in accordance with federal, state, and local regulations.

(c) Each training course shall have an approved program clinical coordinator who shall be either a physician, registered nurse, physician assistant, or a paramedic currently licensed in California, and who should have two (2) years of academic or clinical experience in emergency medicine or prehospital care in the last five (5) years. Duties of the program clinical coordinator shall include, but not be limited to:

(1) Responsibility for the overall quality of medical content of the course;

(2) Approval of the qualifications of the principal instructor(s) and teaching assistant(s) pursuant to POST and EMSA regulations and procedures.

(d) Each training course shall have an approved tactical coordinator who shall have experience and education in law enforcement special operations, and who should have two (2) years of academic or law enforcement experience in the last five (5) years. Duties of the course tactical coordinator shall include, but not be limited to:

(1) Responsibility for the overall quality of tactical content of the course;

(2) Approval of the qualifications of the principal instructor(s) and teaching assistant(s) pursuant to POST and EMSA regulations and procedures.

(e) Each training course shall have a principal instructor(s), who may also be the program clinical coordinator, program tactical coordinator, or program director, who shall be qualified by education and experience in methods, materials, and evaluation of instruction in medical or tactical topics.

(1) Principal instructors should complete a POST-approved instructor development course pursuant to POST regulations and procedures.

(f) Each training course may have teaching assistant(s) who shall be qualified by training and experience to assist with teaching of the course and shall be approved by the program director in coordination with the program clinical coordinator or tactical coordinator as qualified to assist in teaching the topics to which the assistant is to be assigned.

5.4 Didactic and Skills Laboratory

A certified and approved tactical medicine training course shall assure that no more than six (6) students are assigned to one (1) principal instructor/teaching assistant during skills practice/laboratory sessions or as required by POST Course Safety Policy.

5.5 Course Review and Reporting

(a) All course materials specified in this Chapter shall be subject to periodic review by POST and the EMS Authority. EMSA shall coordinate course approval and review with the local EMS Agency.

(b) All course presentations shall be subject to periodic on-site evaluation by POST and the EMS Authority.

(c) Any person or agency conducting a tactical medicine training course shall notify POST, in advance when possible, and in all cases within thirty (30) days of, any proposed changes in course content, hours of instruction, program director, program clinical coordinator, tactical coordinator, and instructors. No presenter is authorized to modify or revise any part of the course without prior written approval by POST and EMSA. Requests shall be submitted electronically through the POST EDI system.

5.6 Withdrawal of Course Approval

Noncompliance with any criterion required for course approval, use of any unqualified teaching personnel, or noncompliance with any other applicable provisions of POST Regulations or Procedures may result in suspension or revocation of course certification by POST.

5.7 Components of an Approved Course

(a) An approved tactical medicine training course shall consist of all of the following:

(1) An expanded course outline and hourly distribution schedule;

(2) The training course, including psychomotor skills and tactical medical scenario experience;

(3) Periodic and a final written and skill competency examinations;

(4) Tactical Medical Scenario examinations; and

(5) A written Course Safety Policy.

(6) Course budget.

(7) Instructor resumes.

(b) POST may approve a training program that offers only refresher or update course(s) through the POST Course Certification process.

5.8 Required Course Hours

(a) The Tactical Medicine course shall consist of not less than eighty (80) hours. These training hours shall be divided into:

(1) A minimum of 35 hours of didactic instruction and skills laboratory;

(2) A minimum of 16 hours of tactical weapons instruction, demonstration;

(3) A minimum of 12 hours of simulated tactical medicine scenario practice, including force-on-force training. The tactical medicine scenario simulations shall include twenty-four patient contacts wherein a patient assessment and other tactical medicine skills are performed;

(4) A minimum of 9 hours of scenario-based reality training; and

(5) A minimum of 8 hours of competency evaluation and testing. The minimum hours include a final examination for tactical medicine certification.

(b) As an alternative to the 80 hour course, an alternative tactical medical course, consisting of no less than forty (40) hours, may be approved and certified by POST and EMSA, when that course admits only students that have satisfied all of the following prerequisites:

(1) Current peace officers or other designated public safety personnel,

(2) Hold minimum certification of EMT-1 or higher,

(3) Completed required WMD training, including medical care for WMD, and

(4) Completed a POST-approved Basic SWAT course.

5.9 Required Course Topics

The initial tactical medicine course shall consist of the following topics, skills, and tactical medical scenarios. Specific required course topics are described in detail in Section 6.0.

Required topics are identified in Commission Regulation 1084.

REQUIRED COURSE TOPICS			
Module	Course Topic	80-HourCourse (Full)	40-Hour Course (Alternate)
ADMINISTRATIVE			
1	Course Administration and Safety	1	1
MEDICAL			
2	Introduction to Tactical Medicine	2	2
3	Tactical Medical Equipment	1	1
4	Operational Casualty Care / Tactical Casualty Care	2	2
5	Hemorrhage Control and Hemostatic Techniques and Dressings	1	1
6	Medical Aspects of Distraction Devices	1	1
7	Medical Aspects of Clandestine Drug Labs	1	1
8	Medical Aspects of Wound Ballistics	1	1
9	Team Health Management and Combat Physiology	1	1
10	Medical Management of K-9 Emergencies	1	*
11	Medical Threat Assessment and Barricade Medicine	1	1
12	Pediatric Trauma Management Considerations in the Tactical Environment	1	1
13	Pain Management	1	1
14	Advanced Airway Management in the Tactical Environment	1	1
15	Environmental Injuries in the Tactical Environment	1	1
16	WMD Biological Weapons I	1	*
17	WMD Biological Weapons II	1	*
18	WMD Chemical Weapons Nerve Agents and Toxins	1	*
19	WMD Chemical Weapons Vesicants and Irritants	1	*
20	WMD Nuclear and Radiation Injuries	1	*
21	Medical Management of Blast Injuries in the Tactical Environment	1	1
22	CBRNE Environments	1	*
23	Medical Aspects of Chemical Agents	1	1
24	Special Operations Aeromedical Evacuation	1	*
25	Medical Issues of Less Lethal Weapons	1	1

*Topic is NOT required for the 40-hour course.

continues

REQUIRED COURSE TOPICS *continued*			
Module	**Course Topic**	**80-Hour Course (Full)**	**40-Hour Course (Alternate)**
MEDICAL *continued*			
26	Basic Tactical Medical Skills Lab	3	3
27	Advanced Tactical Medical Airway Skills Lab	3	3
28	ICS, Multi-casualty and Triage Problem Solving in a Tactical Environment	1	1
29	Low Light Medical Assessment and Treatment	1	1
30	Tactical Equipment	1	*
31	Tactical Team Concepts and Planning	2	*
32	Forensics and Evidence Preservation	1	*
33	Explosive Entry Techniques	1	*
34	Disguised Weapons and Street Survival	1	*
TACTICAL INDIVIDUAL AND TEAM MOVEMENT			
35	Team Movement Exercises	2	*
36	Covert Team Movement Techniques	2	*
37	Dynamic Clearing Techniques and Team Movement	2	*
TACTICAL FIREARMS AND RANGE			
38	Introduction to Tactical Firearms:	16	*
	a) Tactical Pistol	–	–
	b) Submachine Gun/Shoulder Fired Weapons	–	–
	c) Low Light Techniques	–	–
REALITY-BASED SCENARIO TRAINING			
39	Tactical Medical Scenario, Reality-Based Training	9	9
	a) Basic Tactical Medical Scenarios	–	–
	b) Advanced Tactical Medical Scenarios	–	–
	c) Low Light Tactical Medical Scenarios	–	–
COMPETENCY TESTING			
40	Tactical Medical Scenario Evaluation and Testing, Mid-Course	3	*
41	Mid-Course Written Examination	1	*
42	Final Written Examination	1	1
43	Tactical Medicine Scenario Evaluation and Testing, Final	3	3
	TOTAL COURSE HOURS	80	40

*Topic is NOT required for the 40-hour course.

5.10 Required Testing

(a) Each approved tactical program shall include periodic and final competency-based examinations to test the knowledge and skills specified in these Guidelines, and shall include:

(1) A final written competency examination,

(2) A final Skills competency examination, consisting of the minimum psychomotor skills identified in the Guidelines,

(3) A final tactical medicine scenario examination. The tactical medicine scenario examination shall include patient contacts wherein a patient assessment and other tactical medicine skills are performed.

(b) Satisfactory performance in the written, skills, and scenario examinations shall be demonstrated for successful completion of the course. Satisfactory performance shall be determined by standards established by POST and EMSA.

5.11 Course Completion Record

(a) An approved tactical medicine training program provider shall issue a tamper resistant course completion certificate to each person who has successfully completed all of the requirements of the tactical medicine course, or an approved refresher course.

(b) The course completion record shall contain the following:

(1) The name of the individual.

(2) The date of course completion.

(3) Type of tactical medicine course completed (i.e., Initial or refresher), and the number of hours completed.

(4) The signature of the program director.

(5) The signature of the tactical director.

(6) The name and location of the training program issuing the certificate.

(c) This course completion certificate is valid for a maximum of three years from the course completion date.

(d) The name and address of each person receiving a course completion record and the date of course completion shall be reported in writing to POST within fifteen days of course completion using the POST Course Roster Form 2-111.

6.0 Tactical Medicine Required Course Content Description

6.1 . . . . . The following pages provide a detailed description of the course content as noted in Section 5.9. The minimum hours for each topic are estimates of the time that will be required to complete each section.

6.2 . . . . . The topics identified in Section 6 have been approved by the Department of Homeland Security (DHS), and the course is POST-certified and approved by the Emergency Medical Services Authority (EMSA).

6.3 . . . . . Required topics are also identified in Regulation 1084.

TACTICAL MEDICINE COURSE		
Course Description	**80-Hour**	**40-Hour**
1. Course Administration and Safety A. Student will complete course documentation in the following areas: ■ POST Course Registration ■ California Emergency Medical Services Authority / local EMS Agency CE Administrative matters B. Student will demonstrate competency in safety in the following areas: ■ Minimum safety requirements ■ Reality-based safety ■ Force-on-force safety ■ Range safety	**1**	**1**
2. Introduction to Tactical Medicine ■ Historical development of tactical medicine ■ Tactical medicine training program goals ■ Roles and responsibilities of the tactical medic ■ Operational standards ■ Team structure and function ■ Problems facing tactical teams ■ Injuries and illnesses common to tactical operation ■ Uncommon but deadly conditions in the tactical environment ■ Accessibility and civilian EMS interface ■ Legal considerations ■ Operational skills	**2**	**2**
3. Tactical Medical Equipment ■ Design and construction features ■ Load bearing packs ■ Backpack designs ■ Trauma packs ■ Urban carry cases ■ Tactical medical utility vests ■ Self help kits ■ Flexible litter kits ■ Tactical extraction equipment ■ Belt systems ■ Specialty tactical medical gear	**1**	**1**

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
4. Operational Casualty Care / Tactical Casualty Care ■ Tactical Combat Casualty Care Assessment and Treatment Model ■ Basic wound management ■ Situation assessment ■ Patient prioritization ■ Victim extraction ■ Point of relative safety ■ Airway management ■ C-Spine considerations ■ Field assessment and hemorrhage control ■ Shock recognition and management ■ Provisions for evacuation and transport ■ Advanced wound management ■ Fracture recognition and management ■ Gunshot wound management ■ Management of burns in the field ■ Chest wound recognition and management ■ Open chest wound recognition and management ■ Hemothorax and pneumothorax recognition and management ■ Abdominal injuries recognition and management ■ Extremity injuries recognition and management ■ Soft tissue injuries	**2**	**2**
5. Hemorrhage Control and Hemostatic Techniques and Dressings ■ Concepts and principals of hemorrhage control ■ Quantifying blood loss ■ Signs and symptoms of shock ■ Hemorrhage control techniques ■ Hemostatic agent selection and application ■ Tourniquet use and application	**1**	**1**
6. Medical Aspects of Distraction Devices ■ Purpose and definition of distraction devices ■ Correct and incorrect terminology ■ Psychological effects ■ Physiological effects ■ Medical significance ■ Safety concerns	**1**	**1**

continues

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Panic and fear responses ■ Effects on team and possible injuries ■ Deployment options ■ Immediate action drills		
7. Medical Aspects of Clandestine Drug Labs ■ Health and safety concerns ■ Hazard identification ■ Activity patterns ■ Designer drugs ■ Exposure risks/lab conditions ■ Signs and symptoms of chemical exposure ■ Response actions and procedures ■ On-scene medical actions ■ Personal safety protection	**1**	**1**
8. Medical Aspects of Wound Ballistics ■ Bullet types ■ Temporary and permanent cavity ■ High velocity injuries ■ Low velocity injuries ■ Scatter patterns ■ Shotgun injury patterns ■ Non-fragmenting high velocity injuries ■ Wound patterns ■ Gunshot wound myths ■ Entrance vs. exit wounds	**1**	**1**
9. Team Health Management and Combat Physiology ■ Preventive evaluation and education ■ Mental health issues in law enforcement ■ Incident debriefing and stress management ■ Substance abuse ■ Aggressive preventive health care ■ Cardiovascular fitness ■ Proper nutrition ■ Health screening techniques ■ Vitamins and minerals	**1**	**1**

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Dangers of steroid use ■ Lifestyle concerns ■ Combat Physiology ■ Methicillin Resistant Staphylococcus aureus infections (MRSA)		
10. Medical Management of K-9 Emergencies ■ Handling an injured canine ■ Canine airway management ■ Canine CPR ■ Canine shock and field interventions ■ Canine wound and hemorrhage field management ■ Canine fracture recognition and field management ■ Smoke inhalation recognition and field management ■ Canine hyperthermia and hypothermia management ■ Canine poisoning field recognition and management ■ Transporting an injured K-9	**1**	*
11. Medical Threat Assessment and Barricade Medicine ■ Planning advantages ■ Operational risk assessment ■ Mission operational security ■ Hazardous material threats ■ MTA resources ■ Biological threats ■ Data transfer ■ Information prioritization	**1**	**1**
12. Pediatric Trauma Management Considerations in the Tactical Environment ■ Causes of pediatric death ■ Mechanisms of injury ■ Hemorrhage control techniques ■ Primary survey ■ Airway differences ■ Shock recognition and management ■ IV access techniques ■ Fluid therapy ■ Secondary survey ■ Pediatric trauma center considerations	**1**	**1**

*Topic is NOT required for the 40-hour course.

continues

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
13. Pain Management ■ Pain control ■ Topical agents ■ Oral agents ■ Injectable agents ■ Injection techniques ■ Nerve block techniques ■ Narcotic options ■ Reversal agents ■ Anti-emetics ■ Conscious sedation options ■ Benzodiazepines ■ Induction agents ■ Rapid sequence intubation drugs	**1**	**1**
14. Advanced Airway Management in the Tactical Environment ■ Hostile environment ■ Cover and concealment ■ Light discipline ■ Weight and space constraints ■ Hot zone issues ■ Warm zone issues ■ Cold zone issues ■ Field rapid sequence intubation ■ Post intubation care	**1**	**1**
15. Environmental Injuries in the Tactical Environment ■ Hyperthermia recognition and management ■ Hypothermia recognition and management ■ Snake bite management ■ Spider bite management ■ Scorpion bite management ■ Hymenoptera sting management ■ Anaphylaxis management ■ Poisonous plants recognition and management	**1**	**1**

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
16. WMD Biological Weapons – Part 1 ■ Characteristics of effective biological weapons ■ Anthrax epidemiology and clinical features ■ Anthrax treatment ■ Plague epidemiology and clinical features ■ Plague treatment ■ Botulism epidemiology and clinical features ■ Botulism treatment	**1**	*
17. WMD Biological Weapons – Part 2 ■ Tularemia epidemiology and clinical features ■ Tularemia treatment ■ Smallpox epidemiology and clinical features ■ Smallpox treatment ■ Smallpox vaccination ■ Smallpox vaccination contraindications ■ Vaccine complications ■ Hemorrhagic fever viruses epidemiology and clinical features ■ Hemorrhagic fever viruses treatment	**1**	*
18. WMD Chemical Weapons Nerve Agents and Toxins ■ Neurotransmitter physiology ■ Pre- and post-ganglionic synapses ■ Sympathetic synapses ■ Neuromuscular junction ■ Nerve agent physiology ■ Nerve agent diagnosis ■ Nerve agent treatment ■ Ricin pathophysiology	**1**	*
19. WMD Chemical Weapons Vesicants and Irritants Recognition and Management ■ Vesicant and irritant agents ■ Mustard mechanism of action ■ Mustard characteristics ■ Vesicant signs and symptoms ■ Lewisite recognition and treatment ■ Phosgene recognition and treatment ■ Chlorine recognition and treatment ■ Decontamination issues	**1**	*

*Topic is NOT required for the 40-hour course.

continues

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
20. WMD Nuclear and Radiation Injuries ■ Ionizing radiation ■ Non-ionizing radiation ■ Basic physics ■ Nuclear weapons ■ Acute radiation syndrome ■ Prodromal and latent phase ■ Manifest illness phase ■ Recovery or death phase ■ Triage and treatment decision-making	**1**	*
21. Medical Management of Blast Injuries ■ Explosion physics ■ Overpressure mechanics ■ Shock wave components ■ Primary blast injury (PBI) ■ Blast lung pathophysiology ■ Arterial air embolus (AAE) ■ Secondary blast injuries ■ Tertiary blast injuries ■ Suicide bomber issues	**1**	**1**
22. Chemical, Biological, Radiological, Nuclear, and Explosive Environments ■ Scene safety ■ Initial assessment ■ Personal protective gear and equipment ■ Perimeter security ■ Containment ■ Evacuation of casualties ■ Agent identification ■ Injury assessment	**1**	*
23. Medical Aspects of Chemical Agents in the Tactical Environment ■ Purpose and Deployment Options ■ Indications for use ■ Delivery systems ■ Effects of exposure	**1**	**1**

*Topic is NOT required for the 40-hour course.

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Lethal concentration computation ■ Chemical agent exposure field management ■ Principles of field denomination ■ Site control and containment		
24. Special Operations Aero-Medical Evacuation ■ Operational considerations ■ Logistical issues ■ Stresses of flight ■ Flight physiology ■ Indications for transport ■ Packaging for transport ■ Landing zone size requirements ■ Night operations ■ Operational and load calculations ■ Personal safety issues	**1**	*
25. Medical Aspects of Less Lethal Weapons ■ Purpose and deployment of duty aerosols ■ Tactical deployment procedures ■ Use of force options ■ Direct fire munitions ■ Skip fire munitions ■ Multi-launcher – 37 mm and 40 mm ■ Impact munitions ■ Projectiles ■ Beanbags / Sting balls ■ Injury patterns	**1**	**1**
26. Basic Tactical Medical Skills Lab ■ Safety and personal protective equipment ■ Tactical assessment and treatment / TC2 ■ Wound and hemorrhage control / Tourniquet application ■ Basic ventilation and airway management ■ IV and saline lock insertion ■ Medication administration ■ Cardiac and circulatory support – AED / CPR ■ Patient extraction and evacuation	**3**	**3**

*Topic is NOT required for the 40-hour course.

continues

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
27. Advanced Tactical Medical Airway Management Skills Lab ■ Basic procedures and techniques ■ Oral endotracheal intubation ■ Nasotracheal intubation ■ Multi-lumen esophageal-tracheal airway techniques ■ Lightwand techniques ■ LMA techniques ■ Needle cricothyroidostomy ■ Surgical cricothyroidotomy ■ Retrograde intubation ■ Digital intubation ■ Needle thoracostomy	**3**	**3**
28. Incident Command System, Multi-Casualty and Triage Problem Solving in a Tactical Environment ■ Incident Command System (ICS) ■ California Standardized Emergency Management System ■ National Incident Management System / National Response Framework ■ Triage principles ■ START triage ■ Multi-casualty incidents ■ Role of triage, treatment, and transportation in field environment	**1**	**1**
29. Low Light Medical Assessment and Treatment ■ Language and physics of light ■ Vision physiology ■ Battery basics ■ LEDs ■ Reflectors and Lenses ■ Using hand held flashlights ■ Weapon light attachments ■ Movement with lights ■ Low light environments medical assessment	**1**	**1**
30. Tactical Equipment ■ Tactical uniforms ■ Weapons systems ■ Ammunition selection ■ Body armor	**1**	*****

*Topic is NOT required for the 40-hour course.

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Communication equipment ■ Illumination tools ■ Entry tools ■ Breaching equipment ■ Personal gear		
31. Tactical Team Concepts and Planning ■ Team purpose ■ Team objectives ■ Team responsibilities ■ Team member selection process ■ Team operational procedures ■ Noise discipline ■ Cover and concealment ■ Team deployment and negotiation procedures ■ Negotiation issues ■ Medical threat assessment ■ Hierarchy of threats	**2**	*
32. Forensics and Evidence Preservation ■ Tactical medic responsibilities ■ Crime scene awareness ■ Sources of evidence ■ Evidence collection ■ Chain of custody ■ Search and seizure ■ Documentation ■ Clothing considerations ■ On-scene legal considerations	**1**	*
33. Explosive Entry Techniques ■ Purpose and function ■ Evolution of explosive breaching methods ■ Alternative breaching methods ■ Breaching explosives types ■ Shock tube priming systems ■ Principles of cut, push, and blast ■ Charge construction and selection ■ Charge calculations	**1**	*

*Topic is NOT required for the 40-hour course.

continues

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Breaching hazards ■ Target analysis ■ Documentation and liability		
34. Disguised Weapons and Street Survival ■ Concealment techniques ■ Edged weapons ■ Pocket pistols ■ Failure to search ■ Pen knives ■ Pen guns ■ Disguised weapons ■ Unconventional weapons ■ Survival issues ■ Evasive techniques	**1**	*
35. Team Movement Exercises ■ Approaches ■ Initial entry ■ Stairs – 1 and 2 man ■ Stairs – 1 and 2 man with shields ■ Window entry / Gun port ■ Slow and deliberate search ■ Use of shield as cover ■ Corners and angles ■ Movement to contact ■ Threat assessment ■ Shield man shooting	**2**	*
36. Covert Team Movement Techniques ■ Definition of covert movement ■ Techniques of searching ■ Approach, cover, and concealment ■ Teamwork concepts ■ Fundamentals of building clearing ■ Teamwork concepts ■ Methods for searching hallways ■ Methods for searching stairways ■ Methods for searching open areas	**2**	*

*Topic is NOT required for the 40-hour course.

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Methods for searching multiple rooms ■ Methods for searching warehouses ■ Techniques in the use of ballistic shields ■ Techniques using video equipment		
37. Dynamic Clearing Techniques and Team Movement ■ Immediate threat concept ■ Speed, surprise, and shock action ■ Room entry and movement ■ Dealing with multiple threats ■ Clearing open areas ■ Movement in hallways ■ Movement in stairways ■ Tactical use of ladders ■ Clearing multiple rooms ■ Apprehension of unknowns and suspects	**2**	*
38. Introduction to Tactical Firearms A. The student will demonstrate competency in principles and concepts of the Tactical Pistol in the following areas: ■ Nomenclature ■ Ammunition selection ■ Sight alignment ■ Stance ■ Grip ■ Control motion ■ Draw ■ Sight picture ■ Load and unload ■ Trigger control B. The student will demonstrate competency in operational use of shoulder-fired tactical weapons in the following areas: ■ Variations of weapons systems used ■ Nomenclature ■ Stance ■ Grip ■ Ready / Carry positions ■ Load and unload	**16**	*

*Topic is NOT required for the 40-hour course.

continues

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Trigger control ■ Front sight ■ Safety / Selector ■ Shooting positions C. The student will demonstrate competency in range exercises with tactical pistol in the following areas: ■ Controlled pairs ■ Double taps ■ Failure drill ■ Shooting behind a barricade ■ Firing on the move ■ Multiple target engagement ■ Prone firing techniques ■ 3-yard line course of fire ■ 7-yard line course of fire ■ 10-yard line course of fire D. The student will demonstrate competency in range exercises with shoulder-fired tactical weapons in the following areas: ■ Controlled pairs ■ Double taps ■ Failure drill ■ Shooting behind a barricade ■ Firing on the move ■ Multiple targets ■ Prone firing ■ 3-yard line course of fire ■ 7-yard line course of fire ■ 10-yard line course of fire E. The student will demonstrate competency in the principles of low light shooting in the following areas: ■ Lighting tools review ■ Entry techniques ■ Fundamental tactical concepts ■ Using hand-held flashlight with firearms ■ Target identification ■ Low light engagements ■ Target illumination techniques		

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
■ Single suspect ■ Multiple suspects ■ Conflict resolution		
39. Tactical Medical Scenario, Reality-based Training A. **Module A** – Each student will demonstrate competency as a tactical medicine provider by participating in multiple tactical and medical scenarios using the POST/EMSA Tactical Casualty Care Assessment and Treatment Model (TCCC) B. **Module B** – Each student will demonstrate competency as a tactical medicine provider by participating in multiple tactical and medical scenarios using the POST/EMSA Tactical Casualty Care Assessment and Treatment Model (TCCC) C. **Module B** – Each student will demonstrate competency as a tactical medicine provider by participating in multiple tactical and medical low light scenarios using the POST/EMSA Tactical Casualty Care Assessment and Treatment Model (TCCC) D. Tactical and Medical scenario training components used in Modules A and B consist of, but are not limited to, the following: ■ Tactical scenario components • High risk warrant service • Barricaded subject(s) • Hostage rescue • Active shooter(s) ■ Medical components • Airway management • Treatment of hemorrhage • Chest trauma • Nerve agent exposure • Clandestine lab exposure • Extremity/facial/neck injuries and penetrating wounds • Blast injuries • Gunshot wounds • Mass casualty incident (MCI) response/treatment • Extraction techniques	**9**	**9**
40. Tactical Medical Scenario, Evaluation and Testing, Mid-Course The student will demonstrate competency in six Multiple Simulated tactical situations or scenarios in the basic Tactical Medical simulated areas using the Tactical Casualty Care Assessment and Treatment Model. Tactical and Medical scenario components are listed on Page 47.	**3**	*****

*Topic is NOT required for the 40-hour course.

continues

TACTICAL MEDICINE COURSE *continued*		
Course Description	**80-Hour**	**40-Hour**
41. Mid-Course Written Examination The student will demonstrate competency in a written examination designed to test cognitive abilities over the first portion of tactical medicine course.	**1**	*****
42. Final Written Competency Examination The student will demonstrate competency by completing a written examination designed to test cognitive abilities from the entire tactical medicine course.	**1**	**1**
43. Tactical Medicine Scenario Evaluation and Testing, Final The student will demonstrate competency in six Multiple Simulated tactical situations or scenarios in advanced tactical medical simulated areas using the Tactical Casualty Care Assessment and Treatment Model. Tactical and Medical scenario components are listed on Page 47.	**3**	**3**

*Topic is NOT required for the 40-hour course.

7.0 Tactical Medicine Clinical Core Competencies – Psychomotor

7.1 . . . . . **Psychomotor Skills Competencies**

The skills of the tactical medical provider are perishable and should be developed, practiced, and maintained by meaningful ongoing training exercises and an academic educational training program. Tactical medical team personnel should maintain and demonstrate these proficiencies by attending a POST-certified and EMSA-approved tactical medicine update or refresher training program every two years.

7.2 . . . . . **Psychomotor Skills Stations**

The following Skills Stations are designed to ensure Tactical Medicine Psychomotor Core Competencies are included in all training and testing.

1. Safety and Personal Protective Equipment (PPE)
   - Body substance isolation – gloves, mask (N95 minimum), eyewear
   - Tactical equipment
   - Gas mask

2. Tactical Casualty Care Assessment and Treatment Model
   - Evaluate single/multiple victims (tactical combat casualty care)
   - Ongoing patient management
   - Shock recognition and treatment
   - Regular reassessment (monitoring)

3. Basic Airway and Ventilation Techniques
   - Head tilt / Chin lift
   - Rescue positioning
   - Nasopharyngeal airway
   - Chest seal for open chest wound
   - Mouth-valve mask / Bag-valve mask
   - Manual suction device

4. Advanced Airway and Ventilation Techniques*
   - Needle thoracostomy
   - Needle cricothroidotomy
   - Oral endotracheal intubation
   - Surgical airway techniques
   - Perilaryngeal airway adjunct device
   - Other airway adjuncts

5. Hemorrhage Control*
   - Direct pressure
   - Inflow compression
   - Tourniquet application and use
   - Hemostatic agent application

6. Wound Management
   - Trauma dressing application
   - Lacerations
   - Ocular injuries
   - Open chest wounds
   - Burns / Blast injuries

* If applicable within Authorized Scope of Practice based upon current license or certification.

7. Intravenous Access Techniques*
   - IV Insertion
   - Saline Lock
   - Intraosseous Placement
   - Fluid Administration strategies and techniques

8. Medication Administration Techniques*
   - Nerve Agent antidote
   - Epinephrine for injection
   - Intra-muscular injection site selection

9. Patient Extraction and Evacuation
   - Dragging Techniques
   - Soft Litter
   - Manual Carry
   - Other Methods
   - Civilian/EMS Interface – transfer of care

7.3 Evaluation Form for Psychomotor Skills

Instructors should utilize standard forms for the individual student evaluation of psychomotor skills competency testing.

The identified psychomotor skills may be evaluated individually during skills competency testing and as part of a simulation requiring demonstration and evaluation of multiple skills.

* If applicable within Authorized Scope of Practice based upon current license or certification.

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8.0 Tactical Medicine Scenarios

8.1 Tactical Medical Scenario Formulation

A scenario that is developed for use in a simulated tactical environment shall require students to perform specific tasks that will be required of tactical emergency medical personnel while operating in a tactical environment or response to a critical incident.

The scenarios shall provide the capabilities to assess a student's problem solving and decision-making; the ability to analyze situations and solve problems in a timely manner; use of verbal or physical skills to determine the appropriate solutions; situational and tactical awareness and responses; use of verbal and non-verbal communication skills; and the ability to maintain self-control in stressful tactical situations.

The student shall practice multiple, simulated tactical situations or scenarios in the Tactical Medical content areas using the Tactical Casualty Care Assessment and Treatment Model on page 47.

8.2 Scenario Components and Medical Conditions

The scenarios shall be designed to evaluate the student's ability to perform specific tasks while operating in a simulated tactical environment. Each scenario shall include a tactical component and one or more medical conditions. Tactical components and medical conditions are identified on the following page.

8.3 Evaluation Forms

Instructors shall utilize standard evaluation forms for the standardized review of tactical medical scenario curriculum. A **sample** Tactical Medical Scenario Evaluation Form is provided at the end of this section.

TACTICAL CASUALTY CARE ASSESSMENT AND TREATMENT MODEL – CONDITIONS AND COMPONENTS				
	Tactical Scenario Components			
Tactical Scenario Medical Conditions	Warrant Service	Barricaded Subject	Hostage Rescue	Active Shooter
External bleeding				
Gunshot wound (penetrating chest)				
Gunshot wound (face and neck)				
Gunshot wound (abdominal)				
MCI / Triage				
Drug / Clandestine lab				
Chemical / Gas				
Heat casualties				
Extremity fractures				
Explosion injury				
Burns				
Nerve / Organophosphate Exposure				
Difficulty breathing				
Chest pain				
Shock				
Seizure / PCP exposure				
Pediatric trauma				
Pediatric respiratory arrest				
Ocular injury				
Femur fracture (long bone FX)				
Adult respiratory arrest				
Anaphylactic shock				
Snake bite				
Officer down (unknown cause)				
Self-inflicted gunshot wound to head				
Casualty evacuation and ambulance / Air ambulance turnover				
Special problems				

TACTICAL MEDICAL SCENARIO EVALUATION FORM – SAMPLE ONLY

STUDENT: _____ DATE: _____

TACTICAL INSTRUCTOR: _____ MEDICAL INSTRUCTOR: _____

TACTICAL OBJECTIVES:

- **Team Movement**
  - Rear Guard
  - Fatal Funnel
  - 360-degree Coverage
  - Stay Off Walls
  - Noise Discipline
  - Contact
  - Break Contact
    - Protecting patient
    - Extrication
  - Peels
  - Movement Speed
    - Covert
    - Warrant
    - Hostage rescue
  - Hall Boss
  - Point / Trailer
  - Two-man Elements
  - Immediate Threat
- **Hierarchy of Threats**
- **Low Light**
  - Light Discipline
  - Use of Light
  - Backlighting
- **Distraction Device**
- **Use of Force / Less Lethal**
- **Active Shooter**
- **Communication**
- **Situational Awareness**
  - EOD Awareness
  - Booby Traps
  - Evidence Preservation
- **Perimeter Control**
- **Weapons Handling**
  - Laser Rule
  - Hard Cover vs. Concealment

MEDICAL OBJECTIVES:

- **Medical Planning and Threat Assessment**
- **Multiple Casualties**
- **Tactical Casualty Care Model**
- **Penetrating Trauma**
  - Tourniquet Use
  - Face and Neck Trauma
- **Airway and Breathing**
  - Intubation
  - Ventilatory Support
  - Tension PTX
  - Surgical Airway
- **Circulation and Hemorrhage Control**
- **Disability and Exposure**
- **Communication with Team Leader**
- **Packaging and Extraction**
- **Medication Selection**
- **Pediactric Issues**
- **Blast**
- **K9**
- **Environmental**
  - Animal Threats
- **Combat Physiology**
- **Orthopedics**
- **Nukes**
- **Chemical**
- **Biologic**
- **EDPs (5150)**
- **Less Lethal Injuries**
- **Medical Issue Unrelated to Trauma**
  - Asthma
  - MI
  - AMS
  - Psychiatric
  - Drugs
  - Excited Delirium
  - OB
- **Calling Appropriate Transport**
- **Receiving Hospital Notification**

9.0 Tactical Medicine Final Competency Testing

9.1 . . . . . **Tactical Medicine Course – Final Scenario Competency Testing**

The student shall demonstrate competency in six (6) tactical situations or scenarios in the following Tactical Medical simulated areas using the Tactical Casualty Care Assessment and Treatment Model (TCCC).

- Tactical Components
  - High risk warrant service
  - Barricaded subject(s)
  - Hostage rescue
  - Active shooter(s)
- Medical Components
  - Airway management
  - Bleeding/hemorrhage control

- Chest trauma
- Nerve agent exposure
- Clandestine lab chemical exposure
- Extremity/facial/neck injuries and penetrating wounds
- Blast injuries
- Gunshot wounds
- Mass casualty incident (MCI) response/treatment
- Extraction techniques

9.2 Testing Forms

Instructors shall utilize standard forms for the individual student evaluation of final tactical medical competency testing using the tactical casualty care assessment and treatment model. A sample testing/examination form is included.

10.0 Tactical Casualty Care Assessment and Treatment Model

10.1 Tactical Casualty Care Assessment and Treatment Model

The tactical casualty care assessment and treatment model, as presented in these guidelines, represents one potential approach to medical care in a law enforcement tactical environment. Determination of treatment priorities and modalities is best guided by local medical direction and the licensure or certification of the emergency medical personnel involved in the tactical response.

Law enforcement special operations, although different from military operations, is still performed in three phases. The first phase is situational awareness and scene safety, the second phase is tactical field care, and the third phase is extraction, evacuation, and transport.

The current law enforcement Tactical Casualty Care Assessment and Treatment Model is based upon the military Tactical Combat Casualty Care (TCCC) Committee recommendations and modified for law enforcement application. Periodic updates to this model based upon current medical practice should be expected and utilized. The table on the following page contains current TCCC information as of February 2009.

TACTICAL CASUALTY CARE ASSESSMENT AND TREATMENT MODEL - PHASES I, II, and III

PHASE I – Basic Management Plan for Care, Situational Awareness, and Scene Safety

1. Take hard cover
2. Determine if patient is alive or dead.
3. Direct patient to move to cover and apply self-aid if able and try to keep the patient from sustaining additional wounds.
4. Airway management is generally best deferred until the Tactical Field Care phase.
5. Stop life-threatening external hemorrhage, using appropriate PPE, if tactically feasible.
   a. Use Emergency Trauma Dressing.
   b. Use a tourniquet for hemorrhage that is anatomically amenable to tourniquet application.
   c. For hemorrhage that cannot be controlled with a tourniquet, apply hemostatic agent.
6. Communicate with the patient if possible in order to encourage and reassure.
7. Extract patient from unsafe area (to include using a soft litter as needed).
   ► Call for tactical evacuation (ground or air ambulance).

PHASE II – Basic Management Plan for Assessment, Evaluation, and Tactical Field Care

1. Determine level of responsiveness.
   a. Use emergency trauma dressing.
   b. Patients with an altered mental status should be disarmed immediately.
2. Airway management
   a. Unconscious patient without airway obstruction:
      - Chin lift or jaw thrust maneuver.
      - Nasopharyngeal airway.
      - Place patient in recovery position.
   b. Patient with airway obstruction or impending airway obstruction:
      - Chin lift or jaw thrust maneuver.
      - Nasopharyngeal airway.
      - Place unconscious patient in recovery position.
      - If previous measures are unsuccessful:
        – King tube or combitube.
        – Endotracheal nasotracheal intubation or blind nasotracheal intubation
        – Cricothyroidotomy (needle or surgical)

continues

TACTICAL CASUALTY CARE ASSESSMENT AND TREATMENT MODEL *continued*

PHASE II – Basic Management Plan for Assessment, Evacuation, and Tactical Field Care *continued*

3. Breathing
   a. Consider tension pneumothorax and decompress with needle thoracostomy if patient has torso trauma and respiratory distress.
   b. Sucking chest wounds should be treated by applying a chest seal or three-sided occlusive dressing during expiration, then monitoring for development of a tension pneumothora.

4. Bleeding
   a. Assess for unrecognized hemorrhage and control all sources of bleeding.
   b. Assess for discontinuation of tourniquets once hemorrhage is definitively controlled by other means. Before releasing any tourniquet on a patient who has been resuscitated for hemorrhagic shock, ensure a positive response to resuscitation efforts (i.e., a peripheral pulse normal in character and normal mentation if there is no traumatic brain injury (TBI).

5. Intravenous (IV) access
   a. Start an 18-gauge IV (or saline lock) if indicated.
   b. If resuscitation is required and IV access is not obtainable, use the intraosseous (IO) route.

6. Fluid resuscitation
   a. Assess for hemorrhagic shock; altered mental status in the absence of head injury and weak or absent peripheral pulses are the best field indicators of shock.
      - If NOT in shock:
        – No IV fluids necessary
        – PO fluids permissible if conscious and can swallow
      - If in shock:
        – Normal saline (500-mL IV bolus)
        – Repeat once after 15 minutes if still in shock
        – Titrate to systolic BP of 90–100
      - If in shock:
        – Elevate lower extremities
      - If a patient with traumatic brain injury (TBI) is unconscious and has no peripheral pulse, resuscitate to restore the radial pulse.

7. Prevention of hypothermia
   a. Minimize patient's exposure to the elements. Keep protective gear on if feasible.
   b. Replace wet clothing with dry if possible.
   c. Apply Ready-Heat Blanket to torso.
   d. Wrap in Blizzard Rescue Blanket.
   e. Put Thermo-Lite Hypothermia Prevention System Cap on the patient's head, under the helmet.
   f. If above gear is not available, use dry blankets, poncho liners, sleeping bags, body bags, or anything that will retain heat and keep the patient dry.

8. Monitoring
   ► Consider Pulse oximetry if available as an adjunct to clinical monitoring.

continues

TACTICAL CASUALTY CARE ASSESSMENT AND TREATMENT MODEL *continued*

PHASE II – Basic Management Plan for Assessment, Evacuation, and Tactical Field Care *continued*

9. **SECONDARY EXAM**
   a. Check for additional wounds or conditions.
   b. Inspect and dress known wounds.

10. Treat Other Conditions as Necessary
   a. Spinal immobilization.
   b. Use of Mark I Kit for nerve agent exposure.
   c. Use of EpiPen for anaphylactic reaction.
   d. Treat for burns.

11. Penetrating eye trauma
   a. If a penetrating eye injury is noted or suspected:
      - Perform a rapid field test of visual acuity.
      - Cover the eye with a rigid eye shield (NOT a pressure patch).

12. Splint fractures and recheck pulse.

13. Provide analgesia as needed.
   a. Able to fight:
      - Tylenol (650-mg bilayer caplet, 2 caplets)
   b. Unable to fight:
      - Obtain IV or IO access.
         – Morphine sulfate (5–10 mg IV/IO)
            -- Repeat dose every 10 minutes as needed to control severe pain.
            -- Monitor for respiratory depression; have Naloxone available.

14. Cardiopulmonary resuscitation (CPR) and AED
   ► Resuscitation in the tactical environment for victims of blast or penetrating trauma who have no pulse or respirations should only be treated when resources and conditions allow.

15. Communicate with the patient if possible.
   ► Encourage, reassure, and explain care.

16. Documentation
   a. Document clinical assessments, treatments rendered, and changes in the patient's status.
   b. Forward this information with the patient to the next level of care.

PHASE III – Extraction, Evacuation, and Transportation

17. Prepare patient for **TACTICAL EVACUATION**
   a. Move packaged patient to site where evacuation is anticipated.
   b. Monitor airway, breathing, bleeding, and reevaluate the patient for shock.

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Appendix A
Authorized Scope of Practice for EMS Personnel Reference

AUTHORIZED SCOPE OF PRACTICE FOR EMS PERSONNEL
(California Code of Regulations, Title 22, Division 9)

Minimum Scope of Practice

EMT-I	EMT-II	PARAMEDIC
(1) Evaluate the ill and injured. (2) Render basic life support, rescue, and emergency medical care to patients. (3) Obtain diagnostic signs to include, but not be limited to, the assessment of temperature, blood pressure, pulse and respiration rates, level of consciousness, and pupil status. (4) Perform CPR, including the use of mechanical adjuncts to basic CPR. (5) Use the following adjunctive airway breathing aids: (A) oropharyngeal airway; (B) nasopharyngeal airway; (C) suction devices; (D) basic oxygen delivery devices; and (E) manual and mechanical ventilating devices designed for prehospital use. (6) Use various types of stretchers and body immobilization devices. (7) Provide initial prehospital emergency care of trauma. (8) Administer oral glucose or sugar solution. (9) Extricate entrapped persons. (10) Perform field triage.	*Perform all EMT-I skills, plus:* (1) Perform pulmonary ventilation by use of the esophageal airway. (2) Institute intravenous (IV) catheters, needle or other cannulae (IV lines), in peripheral veins. (3) Administer intravenous glucose solutions or isotonic balanced salt solutions, including Ringer's lactate solution. (4) Obtain venous blood samples for laboratory analysis (5) Apply and use pneumatic antishock trousers (6) Administer, using prepackaged products where available, the following drugs: (A) sublingual nitroglycerine preparations; (B) syrup of ipecac; (C) lidocaine hydrochloride; (D) atropine sulfate; (E) sodium bicarbonate; (F) naloxone; (G) furosemide; (H) epinephrine; and (I) 50% dextrose. (7) Defibrillate a patient in ventricular fibrillation. (8) Cardiovert an unconscious patient in ventricular tachycardia.	*All EMT-I and IIs skills and medications, plus:* (1) Laryngoscope. (2) Endotracheal (ET) intubation (adults, oral). (3) Glucose measuring. (4) Valsalva's Maneuver. (5) Needle thoracostomy. (6) Cricothyroidotomy (7) Nasogastric intubation (adult). (8) Use glucose measuring device. (9) Utilize Valsalva maneuver. (10) Monitor thoracostomy tubes. (11) Monitor and adjust IV solutions containing potassium, equal to or less than 20 mEq/L. (12) Administer approved medica-tions by the following routes: intravenous, intramuscular, subcutaneous, inhalation, transcutaneous, rectal, sublin-gual, endotracheal, oral, or topical. (13) Administer, using prepackaged products when available, the following medications: 1. 25% and 50% dextrose; 2. activated charcoal; 3. adenosine; 4. aerosolized or nebulized beta-2 specific bronchodilators; 5. aspirin;

continues

AUTHORIZED SCOPE OF PRACTICE FOR EMS PERSONNEL *continued*

Minimum Scope of Practice

EMT-I	EMT-II	PARAMEDIC
(11) Transport patients. (12) Set up for ALS procedures, under the direction of an EMT-II or Paramedic. (13) Perform AED when authorized by an EMT AED service provider. (14) Assist patients with the administration of physician prescribed devices, including but not limited to, patient operated medication pumps, sublingual nitroglycerin, and self-administered emergency medications, including epine-phrine devices.		1. 25% and 50% dextrose; 2. activated charcoal; 3. adenosine; 4. aerosolized or nebulized beta-2 specific bronchodilators; 5. aspirin; 6. atropine sulfate; 7. pralidoxime chloride; 8. calcium chloride; 9. diazepam; 10. diphenhydramine hydrochloride; 11. dopamine hydrochloride; 12. epinephrine; 13. furosemide; 14. glucagon; 15. midazolam; 16. lidocaine hydrochloride; 17. morphine sulfate; 18. naloxone hydrochloride; 19. nitroglycerin preparations, except intravenous, unless permitted under this section; 20. sodium bicarbonate.

Notable Optional Skills (added at the local level)

EMT-I	EMT-II	PARAMEDIC
Manual Defibrillation, under direct supervision of a paramedic. Esophageal-tracheal airway device (combitube) Bronchodilators Epi-pen Establish IV access under direct supervision of a paramedic. Naloxone Mark 1 Kit Glucagon Aspirin Activated Charcoal	Endotracheal (ET) intubation Laryngoscope Use glucose measuring device. Gastric suction Additional medications	Local EMS agencies may add additional skills and medications if approved by the EMS Authority.

▶ Public safety first aid and CPR trained individuals do not have a defined scope of practice in regulations. Because there is such a wide range of training available to public safety personnel, from a 15-hour first aid and CPR course up to a 60-hour first responder course, public safety personnel who do not have at least an EMT-I certification are limited to basic first aid or a scope of practice approved by a LEMSA medical director which is dependent on the level of training.

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Appendix B

EMS Legal Authorities for EMS Personnel Reference

LEGAL AUTHORITIES FOR TACTICAL MEDIC STANDARDS		
First Aid and CPR Training Standards for Public Safety Personnel		
Health and Safety Code	§ 1797.182	Life guards and firefighters
	§ 1797.183	Peace officers
Penal Code	§ 13518	First aid and CPR training requirement
California Code of Regulations	Title 22	Division 9, Chapter 1.5 Topics and hours of training requirements
EMT-I		
Health and Safety Code	§ 1797.170	Training and scope of practice
	§ 1797.175	Continuing education standards
	§ 1797.210	Certification by LEMSA medical director
	§ 1797.214	Optional scope of practice
	§ 1797.215	CPR renewal periods
	§ 1797.216	Public safety certifying authorities
	§ 1797.221	Trial study by LEMSA
	§ 1798	LEMSA medical control
	§ 1798.200	Violations for discipline
California Code of Regulations	Title 22	Division 9, Chapter 2 Training, scope of practice, certification, and recertification standards
EMT-II		
Health and Safety Code	§ 1797.171	Training and scope of practice
	§ 1797.175	Continuing education standards
	§ 1797.210	Certification by LEMSA medical director
	§ 1797.214	Optional scope of practice
	§ 1797.215	CPR renewal periods
	§ 1797.218	LEMSA authorization for EMT-II program
	§ 1797.220	LEMSA policies and procedures for medical control

continues

LEGAL AUTHORITIES FOR TACTICAL MEDIC STANDARDS *continued*		
EMT-II *continued*		
Health and Safety Code *continued*	§ 1797.221	Trial study by LEMSA
	§ 1798	LEMSA medical control
	§ 1798.200	Violations for discipline
California Code of Regulations	Title 22	Division 9, Chapter 3 Training, scope of practice, certification, and recertification standards
Paramedic		
Health and Safety Code	§ 1797.172	Training, scope of practice, licensure
	§ 1797.174	Continuing education standards for paramedics
	§ 1797.175	Continuing education standards
	§ 1797.178	Must be affiliated with EMS system to practice
	§ 1797.194	State licensure of paramedics
	§ 1797.214	Optional scope of practice
	§ 1797.210	Paramedic fines
	§ 1797.218	LEMSA authorization for paramedic program
	§ 1797.221	Trial study by LEMSA
	§ 1798	LEMSA medical control
	§ 1798.2	Medical direction from base hospital
	§ 1798.3	Medical direction from alternate base station
	§ 1798.200	Violations for discipline
California Code of Regulations	Title 22	Division 9, Chapter 4 Training, scope of practice, licensure, licensure renewal, and accreditations

COMMISSION
EUREKA
PEACE OFFICER STANDARDS AND TRAINING

TACTICAL MEDICINE PROGRAM

PURPOSE

To provide medical oversight and continuous quality improvement and establish policies and procedures for EMS personnel assigned to Tactical Medicine Programs within the ICEMA region.

DEFINITION

Tactical medicine, for the purpose of this policy, is defined as the delivery of emergency medical care during law enforcement special operations.

AUTHORITY

California Penal Code, Section 13514.1; California Health and Safety Code, Sections 1797.218, 1797.220, 1797.222, and 1798 - 1798.6; California Code of Regulations, Title 22, Division 9, Chapter 4, Sections 10145, 100169, and 100170; *Tactical Medicine: Operational Programs and Standardized Training Recommendations* (POST, 2010)

POLICY

1. Tactical Medicine Programs shall be developed and utilized in accordance with the "California POST/EMSA Tactical Medicine Operational Programs and Standardized Training Recommendations" document that can be located on the EMSA website at: http://www.emsa.ca.gov/personnel/files/TacticalMedicine.pdf.

2. Tactical Medicine Programs and their medical personnel (Emergency Medical Technicians (EMTs), Advanced EMT (AEMTs), Paramedics (EMT-Ps), and Registered Nurses (RNs)) shall be integrated into the local EMS system, in coordination with ICEMA, the local Emergency Medical Services (EMS) Agency (POST, 2010).

3. Tactical medicine programs shall be reviewed and approved by ICEMA.

4. Administration of this policy applies to EMTs, AEMTs, EMT-Ps, and RNs providing medical services within an established EMS Agency and as part of a recognized Tactical Medical Program.

    a. The medical scope of practice for EMTs, AEMTs and EMT-Ps is consistent with Title 22, Division 9 and all ICEMA protocols.

5. Tactical Medicine Programs should designate a Tactical Medicine Program Director as defined within POST and EMSA guidelines.

6. Tactical Medicine Programs should designate a physician as a Tactical Medicine Medial Director "to provide medical direction, continuous quality improvement, medical oversight, and act as a resource for medical contingency planning" (POST, 2010).

7. Tactical Medicine Operational Programs should have components pertaining to planning, medical oversight, quality improvement and training as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.1-7).

8. Tactical Medicine Programs should include tactical medical personnel in mission planning and risk assessment to ensure appropriate assets are available for the identified mission as defined in *Tactical Medicine Operational Programs and Standardized Training Recommendations* (POST, 2010; Section 2.2.2).

PROCEDURE

1. All agencies that intend to provide a Tactical Medicine Program will:

    a. Submit an ICEMA approved application for a Specialty Program for review by ICEMA.

    b. Submit a copy of the proposed program to include all information as listed on the application.

    c. Provide a list of all RNs, EMTs and EMT-Ps assigned to the Tactical Medicine Program.

    d. Tactical medical personnel must be:

        1) EMT-Ps must be California licensed and accredited by ICEMA.

        2) EMTs and AEMTs must be California certified.

        3) RNs must be licensed as a Registered Nurse in California and an approved Flight Nurse, MICN, or EMT-P within the ICEMA region.

    e. Participate in ICEMA approved Continuous Quality Improvement process.

TRAINING

Designated Tactical Emergency Medical Support (TEMS) personnel shall successfully complete all initial and ongoing recommended training provided by an approved tactical medicine training program as listed in the "California POST/EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* - March 2010 document.

DRUG AND EQUIPMENT LISTS

Equipment and supplies carried and utilized by Tactical Emergency Medical Support (TEMS) personnel shall be consistent with the items listed in the California POST / EMSA *Tactical Medicine Operational Programs and Standardized Training Recommendations* document. Equipment and supplies shall be based on the appropriate level of personnel utilized for the particular Tactical Medicine Program (TEMS BLS or TEMS ALS).

The Tactical Medicine Program standard list of drugs and equipment carried by TEMS BLS or TEMS ALS medical personnel must be reviewed and approved by ICEMA prior to issue or use by EMT or EMT-P personnel.

TACTICAL MEDICINE OPERATIONAL EQUIPMENT RECOMMENDATIONS

Medications	**BLS**	**ALS**
Albuterol 2.5mg with Atrovent 0.5mg MDI		1
Aspirin 81mg		1 bottle
Atropine Sulfate 1mg preload		1
Dextrose 50% 25gm preload		1
Diphenhydramine 50mg		2
Epinephrine (1:1000) 1mg		2
Epinephrine (1:10,000)1mg preload		2
Glucagon 1mg		1
Naloxone 2mg preload		2
Nerve Agent Antidote (DuoDote)		1
Nitroglycerine 0.4 metered dose or tablets (tablets to be discarded 90 days after opening)		1
Normal Saline 500ml		2
Ondansetron 4mg IV/IM/oral tabs		4

CONTROLLED SUBSTANCE MEDICATIONS

Controlled Substance Medications MUST BE DOUBLED LOCKED	**BLS**	**ALS**
Midazolam –		20 mgs
Morphine Sulfate vials		20 mgs

AIRWAY EQUIPMENT

Airway Equipment	**BLS**	**ALS**
Chest seal and Flutter Valve		1
End Tidal CO2 (device may be integrated into bag)		1
Endotracheal Tubes - 6.0 and/or 6.5, 7.0 and/or 7.5, and 8.0 and/or 8.5 with stylet		1 each
ET Tube holder		1
King LTS-D Size 4 and 5	1 each if approved	1 each
Laryngoscope Kit		1
Nasopharyngeal Airways Adult	1set	1set
Needle Cricothyrotomy Device		1
Needle Thoracostomy Kit		1
Suction (hand held)	1	1
Ventilation Bag collapsible (BVM)	1	1

IV/MONITORING EQUIPMENT

IV/Needle/Syringes	BLS	ALS
AED (with waveform monitoring preferred)	1	1
AED Pads	1	1
Blood Pressure Cuff	1	1
IO Device and Needles		1
IV Needles 14-20 Gauge		1 of each
IV Start Kit		1
IV Tubing		1
Pulse Oximeter (optional)		1
Saline Flush		2
Saline Lock		2
Stethoscope	1	1
Syringes 3cc,5cc,10cc		1 each

DRESSING AND SPLINTING

Dressing/Splints	BLS	ALS
CoTCCC - Recommended Tourniquet system	1	1
Elastic compression dressing	1	1
Latex free gloves	1	1
N95 Mask	1	1
Occlusive dressing	1	1
Roller bandage	1	1
Splint - semi-ridged moldable	1	1
Sterile gauze pads	1	1
Tape	1	1
Trauma dressing	1	1
Trauma shears	1	1
Triangle bandage	1	1
Hemostatic impregnated gauze non-exothermic, i.e. Combat Gauze (optional)	2	2

MISCELLANEOUS EQUIPMENT

Miscellaneous Equipment	BLS	ALS
Litter	1	1
Patient care record	1	1
PPE	1	1
Triage tags	10	10
Tactical Light	1	1
Eyeware	1	1
Rescue Blanket	1	1
Self-heating Blanket	1	1