TACTICAL MEDICINE

POST2009EXE-0390

Operational Programs
AND
Standardized Training Recommendations

California POST —IN COLLABORATION WITH—
Emergency Medical Services Authority

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California POST

TACTICAL MEDICINE

Operational Programs and Standardized Training Recommendations

PRODUCED IN COLLABORATION WITH
Emergency Medical Services Authority

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Tactical Medicine
Operational Programs and Standardized Training Recommendations

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- . . . . . .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
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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

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* 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