

EXPANDED COURSE OUTLINE
REFRESHER TRAINING
FIRST AID / CPR / AED (POST # 21797)

- I. Role of the public safety first aid provider to include:
 - A. Integration with EMS personnel to include active shooter incidents
 - 1. Understanding the needs of EMS responders
 - 2. Unified command
 - 3. Staging
 - 4. Hot, Warm, Cold zones
 - a. Escorting EMS / Rescue Task Force
 - 5. Examples of major incidents with LE and EMS
 - 6. Hartford Consensus
 - a. Surviving mass casualty incidents
 - B. Minimum equipment and first aid kits
 - 1. Penal Code Section 13518.1 (pocket mask)
 - 2. Recommended equipment
 - a. Bleeding and shock control
 - b. Cardiac and other medical emergencies
 - c. Personal Protective Equipment (PPE)
 - 3. Trunk of vehicle vs officer carry
 - 4. EMSA Recommendations

- II. Orientation to the EMS system, including
 - A. 9-1-1 access
 - 1. Enhanced 9-1-1
 - 2. Local alternatives
 - B. Interaction with EMS personnel
 - 1. Jurisdictional disagreements
 - 2. Public expectation
 - 3. Pre-event planning and familiarization
 - C. Identification of local EMS and trauma systems
 - 1. Local EMS resources and expectations
 - 2. Local trauma protocols

- III. Legal issues
 - A. Identify conditions under which a peace officer is protected from liability when providing emergency medical services
 - 1. 1799.102 H&S
 - a. Act within scope of their employment
 - b. Act in good faith
 - c. Provide a standard of care that is within the scope of their training and agency policy
 - 2. Consent
 - 3. Refusal of care
 - a. DNR (Do Not Resuscitate)
 - B. Identify conditions under which a peace officer may NOT be protected from liability when providing emergency medical services
 - 1. Negligence
 - a. Act beyond scope
 - b. Grossly negligent manner

- IV. Safety protocols
 - A. Identify the links of the chain of transmission of infectious pathogens
 - 1. Being present
 - 2. Entry site
 - 3. Quantity and/or susceptibility
 - 4. When exposure occurs
 - a. Reporting
 - b. Actions (department policies and plans)
 - B. Recognize precautions peace officers should take to ensure their own personal safety when responding to a medical emergency
 - 1. Responding to the scene
 - 2. Scene safety
 - 3. Universal precautions
 - a. All fluids are contaminated
 - b. Decontamination considerations
 - 4. Personal Protective Equipment (PPE)
 - a. Gloves
 - b. Eye protection
 - c. Masks / gowns
 - 5. Blood borne pathogens
 - a. Awareness
 - b. Precautions
 - 1. Cover open wounds
 - c. Reporting
 - C. Airborne Transmissible Diseases
 - a. Awareness
 - b. Precautions
 - 1. Respiratory protection equipment
 - c. Reporting
 - D. Decontamination considerations
 - a. Removal of contaminated gloves
 - b. Equipment, uniforms and shoes
- V. Heart Attack and sudden cardiac arrest to include:
 - A. Sudden cardiac arrest and early defibrillation
 - 1. Heart attack
 - a. Minor to severe
 - b. Blockage of blood/lack of oxygen
 - c. Coronary artery disease
 - d. Signs/Symptoms
 - 1. Chest pain
 - 2. Radiating pain
 - 3. Vital signs
 - 4. Mental status
 - e. Treatment
 - 1. Position of comfort
 - 2. Access EMS
 - 2. Sudden cardiac arrest
 - a. American Heart Association science updates 2015
 - 1. Focus on immediate compressions

2. Delivery of shock from AED within 3 minutes
 - B. Chain of survival (Out-of-hospital)
 1. Recognition and early activation of EMS
 2. Immediate high-quality CPR
 3. Rapid defibrillation
 4. Basic and advanced EMS
 5. Advanced life support and post-arrest care
- VI. CPR and AED for adults, children, and infants, following current AHA Guidelines (C-A-B)
- A. Rescue breathing
 1. Mouth-to-Mouth
 2. Mouth-to-Mask
 3. Bag-valve-mask (BVM)
 - B. Chest compressions and CPR/AED
 1. Basic AED operation
 2. Using the AED
 3. Troubleshooting and other considerations
 - C. Recovery position
 1. Spinal injury considerations
- VII. Recognition and identification of adult and pediatric patients for both medical and traumatic emergencies
- A. Performing a primary assessment
 1. Responsiveness
 2. (CAB) Circulation, Airway, Breathing
 3. Shock and major bleeding
 4. C-Spine considerations
 - B. Performing a secondary assessment
 1. Vital signs
 2. Head-to-toe check for injuries
 - C. Obtaining a patient history
 1. Information about the patient and the incident
- VIII. Medical emergencies
- A. Breathing difficulties, including asthma and COPD
 1. Choking
 - a. Adult and children
 1. Abdominal thrusts
 2. Chest thrusts
 3. CPR
 - b. Infant
 1. Back blows
 2. Chest thrusts
 3. CPR
 - c. Pregnant or obese patients
 1. Chest thrusts
 2. CPR
 2. Difficulty breathing
 - a. Position of comfort
 - b. Patient medications (inhalers)

- B. Allergic reaction and anaphylaxis
 - 1. Assisted epinephrine administration
 - a. Assist victim with own medication
 - b. Administering Epi is EMSA “optional” skill
 - c. Accessing EMS
- C. Altered mental status
 - 1. Physiological or psychological
 - 2. Officer and patient safety considerations
 - 3. Activation of EMS
- D. Diabetic emergencies
 - 1. Administration of oral glucose
 - 2. Low blood sugar (hypoglycemia)
 - a. Officer safety / use of force
 - 3. High blood sugar (hyperglycemia)
- E. Alcohol and drug emergencies
 - 1. Assisted naloxone administration and accessing EMS
 - a. Naloxone
 - 1. Counteracts symptoms of opioid overdose
 - a. Breathing problems
 - b. responsiveness
 - 2. Administered IM or nasal spray
 - b. Protocols
 - 1. Assist victim with own medication
 - 2. Administering naloxone is EMSA “optional” skill
 - 3. Looks for signs of overdose
 - c. Officer safety
 - 1. Transdermal exposure (mixed drugs)
 - 2. Combative patient
 - 3. Sharps and scene hazards
 - 2. Overdose and withdrawal considerations
 - a. Activation of EMS
 - b. Aspiration concerns-recovery position
 - c. Continue to monitor detainees
- F. *Optional Skill – Naloxone Administration
 - 1. Objectives
 - a. Define Naloxone
 - b. Routes of administration
 - c. Training requirements
 - 2. Use of Naloxone by Law Enforcement Officers
 - a. Safe, effective, well established practice
 - b. Few side effects
 - c. First step in combating deaths and overdose
 - d. Time sensitive emergency
 - 3. PPE and Scene Safety
 - a) Proper PPE (gloves, eyewear, mask)
 - b) Patients may become combative

4. Definition of Opioids/Opiates
 - a. Opioids – synthetic drugs
 - b. Opiates – naturally derived from poppy plants
 - c. Abused for euphoric (to get high) and for pain management
 - d. Central Nervous System (CNS) Depressants
 - 1) CNS and brain function
 - 2) Respiratory system
 - 3) Cardiovascular system
5. Common Opioid Medications
 - a. Codeine
 - b. Fentanyl
 - c. Hydrocodone (Vicodin/Norco/Lortab)
 - d. Hydromorphone (Dilaudid)
 - e. Methadone
 - f. Morphine
 - g. Oxycodone (Percocet, Oxycontin)
 - h. Illegal Opioids (Heroin, Opium)
6. Routes of Opioid Administration
 - a. Oral (pills or patches)
 - b. Intravenous (IV)
 - c. Snorting
 - d. Smoking
 - e. Subcutaneous (under the skin)
7. Naloxone (Narcan)
 - a. Opioid antagonist (reversal drug)
 - b. Used as an emergent overdose treatment in the hospital and pre-hospital settings
 - c. Increased need for Narcan due to:
 - 1) Larger variety of opioids
 - 2) Increased use and abuse of opioids
8. Naloxone Mechanism of Action
 - a. Naloxone displaces the opioid from the opioid receptor in the nervous system
 - b. Temporarily reverses respiratory and CNS depression
 - c. May result in sudden onset of withdrawal
9. Signs and Symptoms of Opioid Withdrawal
 - a. Agitation
 - b. Tachycardia
 - c. Pulmonary Edema
 - d. Nausea/Vomiting
 - e. Seizures

10. Naloxone will not work for the following

- a. Sedatives
 - 1) Valium
 - 2) Ativan
 - 3) Xanax
 - 4) Alcohol
- a. Stimulants
 - 1) Cocaine
 - 2) Amphetamines

11. Patient Management

- a. Scene safety
- b. Personal Protective Equipment
 - 1) Gloves
 - 2) Goggles
 - 3) Disposal of contaminated items and sharps
- a. Indications
 - 1) Environment is suspicious for opioids
 - 2) Unconscious or poor to respond
 - 3) Breathing rate is <6 per min or not breathing
- a. Contraindications
 - 1) Alert patient
 - 2) Normal breathing
- a. Side effects
 - 1) Seizures
 - 2) Combative patient
 - 3) With drawl
 - 4) Vomiting

12. Routes of Administration and Dosages by Law Enforcement Officers

- a. Intranasal administration
 - 1) Preload syringe
 - 2) Initial dose 1 mg in nostril
 - 3) Repeat dose 1 mg in other nostril
 - 4) Nasal Spray
 - 5) Full dose in 1 nostril

13. CVEMSA Public Safety IN Narcan protocol review

IX. Facial injuries

- A. Objects in the eye
 - 1. Immobilize and protect
- B. Chemical in the eye
 - 1. Rinse and evaluate
 - 2. Poison control
- C. Nosebleed
 - 1. Lean forward
 - 2. Pressure / do not pack
- D. Dental emergencies
 - 1. Airway concerns
 - 2. Collect teeth in patient saliva or milk
 - 3. Hold tooth by crown, not root

X. Environmental emergencies

- A. Drowning
 - 1. Rescuer safety
 - 2. Cold water immersion
 - 3. CPR or rescue breathing
- B. Temperature related emergencies
 - 1. Mild hypothermia
 - a. Indicators
 - 1. Shivering
 - 2. Fatigue
 - 3. Confusion
 - 4. Rapid breathing and pulse
 - b. Treatment
 - 1. Move to warm environment
 - 2. Remove wet clothing
 - 3. Do not give alcohol or caffeine
 - 4. Keep victim moving
 - 2. Severe hypothermia
 - a. Indicators
 - 1. Lack of shivering
 - 2. Rigid muscles and joints
 - 3. Slow, shallow breathing
 - 4. Irregular, weak or slow pulse
 - 5. Decreased level of consciousness
 - 6. Unwilling or unable to do simple activities
 - 7. Slurred speech
 - b. Treatment
 - 1. Move to warm environment
 - 2. Remove wet clothing
 - 3. Do not give alcohol or caffeine
 - 4. Monitor vital signs and perform CPR if necessary
 - 5. Immobilize and protect frostnip/frostbite
 - 6. Wrap each digit individually and loosely
 - 7. Re-warm slowly
 - 3. Heat cramps
 - a. Indicators

1. Painful muscle spasms
2. Lightheadedness
3. Weakness
- b. Treatment
 1. Remove victim from heat
 2. Massage cramped muscles
 3. Provide water in small amounts
 4. Do not give alcohol or caffeine
4. Heat exhaustion
 - a. Indicators
 1. Profuse sweating
 2. Dizziness
 3. Headache
 4. Pale, clammy skin
 5. Rapid pulse
 6. Weakness
 7. Nausea, vomiting
 - b. Treatment
 1. Remove victim from heat
 2. Massage cramped muscles
 3. Provide water in small amounts
 4. Do not give alcohol or caffeine
5. Heat stroke
 - a. Indicators
 1. Red, hot, dry skin
 2. Rapid irregular pulse
 3. Shallow breathing
 4. Confusion
 5. Weakness
 6. Possible seizures or unconsciousness
 - b. Treatment
 1. Activate EMS
 2. Remove from heat
 3. Loosen clothing
 4. Cool victim's body rapidly
 - a. Douse with cool water
 - b. Wrap in wet sheet or blanket
 - c. Place ice pack in groin, neck, arm pits

XI.

Bites and stings

- A. Insect bites and stings
 1. Officer safety
 2. Usual reactions
 - a. Local swelling
 - b. Minor pain
 - c. Itching
 3. Allergic reaction
 - a. Itching
 - b. Burning
 - c. Hives
 - d. Swollen lips and tongue

- e. Difficulty breathing
- f. Respiratory failure
- 4. Treatment
 - a. Remove stinger by scraping
 - b. Wash with soap
 - c. Apply ice to reduce swelling and rate of spread
 - d. Apply heat to marine life stings
 - e. Assist victim in taking epinephrine
 - f. Monitor for shock
 - g. Consider activation of EMS
- B. Animal and human bites
 - 1. Officer safety
 - 2. Criminal considerations
 - 3. Treatment protocols
- C. Assisted administration of epinephrine auto-injector
 - 1. Accessing EMS
 - 2. Epinephrine prescriptions
 - a. First and second dosing timeline
 - 3. Legal issues
 - a. Local protocols

XII. Poisoning

- A. Exposure to chemical, biological, radiological or nuclear (CBRN) substances
 - 1. Recognition of exposure
 - 2. Unified command with Fire/EMS
 - 3. Scene safety
 - a. Upwind, upstream, uphill
 - b. Perimeter control
 - c. decontamination
- B. Poison control system
 - 1. Coordination with EMS

XIII. Identify signs and symptoms of psychological emergencies

- A. Early recognition
 - 1. Accessing EMS
 - 2. Appropriate LE response
 - a. Officer safety
 - b. Reduce symptoms
 - 1. Calm, direct approach
 - c. Develop a plan
 - 3. Considerations
 - a. Shock
 - b. Cardiac arrest

XIV. Patient movement

- A. Emergency movement of patients
 - 1. When to move
 - a. Unable to treat
 - b. Scene unsafe
 - 2. Shoulder drag

- a. Use hands and grasp the victim under the armpits
 - b. Stabilize the victim's head and neck to reduce the risk of injury
 - c. Carefully lift the victim, keeping the head and shoulders as close to the ground as possible
 - d. Drag the victim so that the head, torso, and legs remain in a straight line
 - e. Do not pull sideways
 - f. Gently place the victim in the new location
 - g. Assess the victim's condition
- B. Lifts and carries which may include: using soft litters and manual extraction including fore/aft, side-by-side, shoulder/belt
- 1. Movement
 - a. Commercial / improvised soft litters
 - b. Goals
 - 1. Life-saving
 - 2. Shoulder drag

XV. Tactical and rescue first aid principles applied to violent circumstances

- A. Principles of tactical casualty care
- 1. Mindset- Officer stays engaged
 - 2. Voice commands
 - a. Directions to officers / victims
 - b. Take cover. Get off the "X"
 - 3. Prevent further victims
 - 4. Reducing delay of life-saving measures
 - a. Tourniquet / chest seal victim and move
 - 5. Rescue teams simultaneous with LE response
- B. Determining treatment priorities
- 1. Triage and victim staging
 - a. Hemorrhage control
 - b. Open chest wound protocol
 - c. Self-care / buddy care
 - d. Consider disarming injured officer (altered LOC)

XVI. Trauma emergencies

- A. Soft tissue injuries and wounds
- 1. Review of basic treatment
 - 2. Dressings and Bandages
 - 3. Bleeding / shock control
- B. Amputations and impaled objects
- 1. Review of basic treatment
 - 2. Bleeding / shock control
- C. Chest and abdominal injuries
- 1. Review of basic treatment for chest wall injuries
 - 2. Application of chest seals
 - 3. Immobilize penetrating objects
 - 4. Continue to monitor vitals
 - 5. Position injured side down (consider C-spine injuries)
- D. Head, neck or back injury
- 1. Indicators

- a. Mechanism of injury
 - 1. Striking vehicle windshield
 - 2. Blow to the head
 - 3. falls
 - b. Mental status
 - 1. Agitated, confused, combative
 - 2. Appears intoxicated
 - 3. Decreased level of consciousness
 - 4. Loss of short term memory
 - 5. Loss of consciousness
 - c. Vital signs
 - 1. Abnormal breathing patterns
 - 2. Decreased pulse
 - 3. General deterioration of vital signs
 - d. Visible injury
 - 1. Deformity of the head or skull
 - 2. Visible bone fragments
 - e. Appearance
 - 1. Clear or bloody fluid from the ears or nose
 - 2. Unequal pupils
 - 3. Bruising behind ears
 - 4. Discoloration around eyes
 - 5. Paralysis
 - 6. Priapism
- 2. Treatment
 - a. Do not move victim's head
 - b. Activate EMS
 - c. Control bleeding
 - d. Check for cerebrospinal fluid in ears/nose and bandage loosely
 - e. Be prepared for projectile vomiting
 - f. Treat for shock
- E. Spinal immobilization
 - 1. Manual stabilization
 - 2. Awareness of EMS techniques and equipment
- F. Musculoskeletal trauma and splinting
 - 1. Expose injury site
 - 2. Assess for fractures
 - 3. Control excessive bleeding
 - 4. Treat for shock
 - 5. Apply dressing and bandages to immobilize injury
 - a. Immobilize bones above and below the joint
 - b. Do not attempt to manipulate or straighten limbs
 - c. Leave fingers and toes exposed unless affected
 - d. Check for circulation below injury site
 - 6. Bleeding / shock control
 - 7. Improvisational splinting
- G. Internal bleeding
 - 1. Indicators
 - a. Rapid pulse / respirations
 - b. General decline in vitals

2. Bleeding / Shock control
- H. Control of bleeding, including direct pressure, tourniquet, hemostatic dressings, chest seals and dressings
1. Training in the use of hemostatic dressing shall result in competency in the application of hemostatic dressing. Included in the training shall be the following topics and skills:
 - a. Review of basic methods of bleeding control to include but not be limited to direct pressure, pressure bandages, tourniquets, and hemostatic dressing and wound packing
 - b. Tourniquets
 1. Types and uses
 2. Application
 - a. High placement
 - b. For life-threatening bleeding
 - c. Hemostatic dressings
 1. Compliments direct pressure
 2. For non-natural body cavities
 3. Pack towards bleeding (torso)
 4. EMSA Approved
 - a. Quick Clot®, Z-Medica®
 1. Quick Clot®, Combat Gauze® LE
 2. Quick Clot®, EMS Rolled Gauze, 4x4 Dressing, TraumaPad®
 - b. Celox®
 1. Celox® Gauze, Z-Fold Hemostatic Gauze
 2. Celox® Rapid, Hemostatic Z-Fold Gauze
 - c. Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.
 - d. Chest seals
 1. Types and uses
 2. Venting and exit wound considerations

- XVII. Written, oral and/or demonstration assessment (in each topic area)
- A. A learning activity that requires the student to conduct a primary assessment and triage on victims of trauma or medical emergency during/following violent circumstances (i.e. active shooter). The primary assessment shall minimally include:
 1. Check for responsiveness
 2. Check circulation
 3. Check airway
 4. Check breathing
 5. Look for serious bleeding
 - B. A learning activity that requires the student to demonstrate the following first aid techniques for controlling bleeding of a limb:
 1. Direct pressure
 2. Tourniquet
 3. Hemostatic dressing

- C. A learning activity that requires the student to demonstrate the following first aid technique for controlling bleeding of the chest or abdomen:
 - 1. Chest seals
- D. A learning activity that requires the student to demonstrate the following basic life support techniques:
 - 1. Clearing an obstructed airway on conscious and unconscious victims
 - a. Adult or child
 - b. Infant
 - c. Obese or pregnant
 - 2. Rescue breathing
 - a. Adult
 - b. Child
 - c. Infant
 - 3. CPR (alone and as part of a rescue team)
 - a. Adult
 - b. Child
 - c. Infant
- E. Written exam
- F. *Optional Naloxone skill requires additional learning activity:
 - 1. Assessment of when to administer naloxone
 - 2. Managing a patient before and after administering naloxone
 - 3. Using universal precautions and body substance isolation procedures during medial administration
 - 4. Demonstrating aseptic technique during medication administration
 - 5. Demonstrate preparation and administration of parenteral medications by a route other than intravenous
 - 6. Proper disposal of contaminated items and sharps