

FIRST AID/CPR/AED REFRESHER
Santa Clara County, Office of the Sheriff – 2270
CCN: 21797 | POST Certification II | Reimbursement Plan IV | 4 hours

EXPANDED COURSE OUTLINE

I. Class Overview/Administrative Issues

- A. Administrative issues/registration/safety guidelines
- B. Instructor introductions
- C. Course description
 - 1. Time allocations
 - 2. Course structure
 - a. Course requirements for successful completion
 - 1) Skills demonstrations
 - 2) Written examination of cognitive skills
 - a) Pre-test/post-test written examination

II. Students Testing of Basic Life Support Skills and Retention of Training Received Prior to April 1, 2017

- A. Course Pre-requisite
 - 1. All previously trained students
 - 2. Completed Basic Course, Course #21798
- B. Written Assessment of Basic Life Support (BLS)
- C. Practical Application Assessment will be conducted by oral quizzes and skills observations
 - a. Identifying conditions under which a peace officer is protected from liability
 - b. Agency-established standards
 - 2. Primary victim assessment
 - 3. Secondary victim assessment
 - 4. Obtain a patient history
 - 5. Prioritizing when assessing multiple victims
 - 6. Victim movement
 - 7. Cardiopulmonary Resuscitation (CPR) for:
 - a. Adults
 - b. Children
 - c. Infants
 - 8. Victim airway opening or maintenance
 - a. Conscious

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- b. Unconscious
- 9. Rescue breathing
 - a. Mouth-to-mouth
 - b. Pocket masks
 - c. Bag valve mask
- 10. Bleeding Control Techniques
 - a. Direct pressure
 - b. Tourniquets, improvised
- 11. Head, neck, and back Injuries
- 12. Open and closed injuries to:
 - a. Chest
 - b. Abdomen
- 13. Skeletal, bone, and joint injuries
- 14. Spinal column injuries
- 15. Fractures/dislocations
- 16. Splinting techniques
- 17. First Aid measurements for:
 - a. Thermal burns
 - b. Chemical burns
 - c. Electrical burns
 - d. Radiation burns
- 18. Recognize indicators and first aid measures for victims experiencing:
 - a. Cardiac emergency
 - b. Respiratory emergency
 - c. Seizure
 - d. Stroke
 - e. Diabetic emergencies
 - f. Poisoning
 - g. Hypothermia and frostbite
 - h. Heat-related emergencies
 - i. Stings and bites
- 19. Emergency childbirth

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III. Updated training will be provided according to the new EMSA regulations, Title 22, Section 10023 established April 1, 2015

IV. Role of Public Safety First Aid Provider Within the EMS System

A. Peace officer responsibilities

1. Integration with EMS personnel to include active shooter incidents
2. Scene safety
3. Address law enforcement threat, then render aid
4. Activate EMS as needed/render appropriate care
5. Identification of local EMS and trauma systems

B. Minimum equipment and first aid kits

1. Department standards
2. Personal protective equipment
3. Dressing/bandaging materials for effective control of bleeding

V. Patient Assessment

A. Primary Patient Assessment

1. Scene safety/PPE
2. Check responsiveness/tap and shout
3. Unresponsive
4. Activate EMS
5. Check breathing/pulse (No more than 10 seconds)
6. Responsive
7. Ensure ABCs adequate/check Levels of Consciousness (LOC)
8. Determine chief complaint
9. Move toward secondary survey/treatment as needed

B. Secondary patient assessment (conscious patient/safe scene)

1. Vital signs/general appearance/skin color, temperature, moisture
2. Level of Consciousness - AVPU acronym
 - a. Alert
 - b. Verbal

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- c. Painful
- d. Unresponsive
- 3. Head to toe “hands-on” assessment
- 4. Patient history - S A M P L E acronym
 - a. Signs/symptoms
 - b. Allergies
 - c. Medications
 - d. Last oral intake
 - e. Event leading up to present illness/injury

C. Obtain Patient History

D. Multiple-Victim Assessment – Tactical Casualty Care

- 1. Discuss mass causality incidents
- 2. Declaration of such by first responders
- 3. Necessary when number of victims overwhelms resources
- 4. Determine treatment priorities (AKA triage)
- 5. Determine what resources should be given to which patient
- 6. R P M acronym
 - a. Check R respiration > 30<8... immediate care
 - b. Check P pulse, capillary refill >2 seconds...immediate care
 - c. Check M mentation, doesn't follow simple commands....immediate care
- 7. Determine which patients are in most immediate danger and seem salvageable

VI. AED use for Heart Attack/Sudden Cardiac Arrest

A. Follow current American Heart Association (AHA) Guidelines

B. Rescue breathing

- 1. Mouth-to-mouth
- 2. Mouth-to-mask
- 3. Bag Valve Mask (BVM)

C. AED

- 1. Basic AED operation
- 2. Using the AED
- 3. Troubleshooting and other considerations

D. Care for Heart Attack

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1. Activate EMS
2. Obtain A.E.D. for early defibrillation
3. Position of comfort/assist with nitro as prescribed
4. Treat for shock

E. Sudden Cardiac Arrest

1. Signs/symptoms
2. Activate EMS
3. Obtain A.E.D. for early defibrillation
4. Begin CPR
5. Support chain of survival, 5 components
 - a. Immediate recognition of cardiac arrest and activation of the emergency response system.
 - b. Early cardiopulmonary resuscitation (CPR) with an emphasis on chest compressions
 - c. Rapid defibrillation
 - d. Effective advance life support
 - e. Integrated post-cardiac arrest care

F. CPR (Cardiopulmonary Resuscitation) Coordinated with AED

1. Adult rescue breathing/CPR
 - a. Rescue breathing, 1 breath each 5 seconds (with CPR mask)
 - b. CPR 30 compression, 2 breaths (one- and two-rescuer)
 - c. Depth 2-2.4 inches
 - d. Rate 100-120 compressions/minute (heel of two hands)
2. Child Rescue Breathing/CPR
 - a. Rescue breathing, 1 breath each 3 seconds (with CPR mask)
 - b. CPR 30 compressions, 2 breaths (one rescuer)
 - c. CPR 15 compressions, 2 breaths (two rescuer)
 - d. Depth about 2 inches (heel of one or two hands)
 - e. Rate 100-120 compressions/minute
3. Infant Rescue Breathing /CPR
 - a. Rescue breathing 1 “puff” each 3 seconds (with CPR mask)
 - b. CPR 30 compressions 2 “puffs” of air (one rescuer)
 - c. Tips of two fingers with below nipple line

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- d. Depth about ½ to 1 inch
- e. CPR 15 compressions 2 “puffs” of air (two rescuer)

G. Recovery Position

- 1. Cradle the infant in your arms with their head titled downwards.
- 2. Monitor their breathing and level of response until medical help arrives.

VII. Medical Emergencies

A. Respiratory Emergencies

- 1. Breathing difficulties
- 2. COPD patients
 - a. Asthma, acute loss of airway
 - b. Assist with prescribed inhaler
 - c. Monitor ABCs treat for shock

B. Allergic Reaction (Anaphylaxis)

- 1. Assist with prescribed auto-inject epinephrine
- 2. Monitor ABCs, treat for shock

C. Altered Mental Status - Identify Signs and Symptoms of Psychological Emergencies

- 1. Crying/extreme withdrawal from outside contact
- 2. Agitated or aggressive behavior
- 3. Unusual outbursts or disoriented statements
- 4. Behavior inconsistent with normal behavior/demeanor
- 5. Paranoia
- 6. Delusions/hallucinations

D. Diabetic Emergencies

- 1. Insulin shock vs. diabetic coma
- 2. Signs/symptoms
- 3. Give the victim oral glucose substances
- 4. Monitor ABCs, treat for shock

E. Alcohol and Drug Emergencies

- 1. Assisted naloxone
- 2. Administration vs. assisted
 - a. Administration can only be authorized by LEMSA
 - b. See additional information in Section XII

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3. Accessing EMS
4. LEMSA authority and directions

F. Facial Injuries

1. Objects in the eye
2. Impaled objects
 - a. Immobilize with bulky dressing
 - b. Cover both eyes
3. Lacerations/abrasions of eye
 - a. Cover eye
 - b. Minimize eye movement
4. Chemical in the eye
 - a. Flush with water 15-20 minutes
 - b. Seek medical evaluation
5. Nosebleeds
 - a. Pressure to bridge of nose/lean patient forward/manage airway
6. Dental emergencies
 - a. Avulsed or displaced tooth
 - b. Place in sterile water, milk, or victim's saliva/transport with victim

VIII. Environmental Emergencies

A. Drowning

1. Move victim safely onto land
2. Assess victim
3. Treat with rescue breathing/CPR as needed

B. Animal/human bites

1. Control bleeding
2. Cleanse wound
3. Clean dressing

C. Venomous snake bites

1. Calm victim
2. Immobilize injury site
3. Keep lower than heart
4. Seek medical care

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D. Insect Bites and Stings (Bee, etc.)

1. Concern for anaphylaxis
2. Loss of airway
3. Assist with prescribed auto-inject epinephrine

E. Poisoning

1. Recognition of exposure to CBRN agents
2. Scene safety - assessing patient
3. Determine source of poison
4. Poison control system notification and advice

IX. Patient Movement

A. Emergency Movement

B. Move Only When Necessary (Imminent Danger, Treatment Assessment, etc.)

C. Spinal Immobilization Techniques

1. C-collar is now contraindicated in 2015 guidelines

D. General Guidelines

1. Plan ahead
2. Reassure victim
3. Victim stability

E. Lifts and Carries, Including:

1. Shoulder drag
2. Soft litters
3. Manual extractions
4. Fore/aft carry – AKA trunk-leg carry
5. Side-by-side carries – AKA two-handed seat
6. Shoulder belt

F. Additional considerations discussed in active shooter situations

X. Tactical and Rescue First Aid Principles Applied to Violent Circumstances

A. Principles of Tactical Emergency Casualty Care

1. Threat Assessment
 - a. Cover

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- b. Return fire
 - c. Remove victim from unsafe environment
- B. Determining Treatment Priorities – Triage
 - 1. Deceased (black)
 - a. Unresponsive, not breathing or pulse
 - 2. Immediate (red)
 - a. Breathing, needs treatment now
 - 3. Delayed (yellow)
 - a. Breathing, treatment not immediate
 - 4. Minor (green)
 - a. Responsive, can walk or crawl, no immediate treatment

XI. Trauma Emergencies

- A. Amputations
 - 1. Concern for bleeding control (tourniquet)
 - 2. Pack amputated part in clean dressing and keep cool
 - 3. Transport amputated part with victim
- B. Chest Injuries – Closed-Chest Injury
 - 1. Assessment
 - a. May have fractures
 - b. Flail segment
 - c. Compromised breathing
 - 2. Treatment
 - a. Place victim on injured side, or provide support to flail segment
 - b. Monitor ABCs
 - c. Treat for shock
- C. Chest Trauma – Open or Penetrating Chest Injury
 - 1. Assessment
 - a. Open or penetrating chest injuries
 - b. May be “sucking chest wound”
 - 2. Treatment
 - a. Application of chest seal(s) over puncture/penetration
 - 1) Visualize wound site

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- 2) Clean area
- 3) Apply seal
- 4) Check respirations
3. Place on injured side
4. Monitor ABCs
5. Treat for shock

D. Abdominal Injuries

1. Closed - signs/symptoms, concern for internal bleeding, organ damage
2. Open - control bleeding with pressure
3. Eviscerations
 - a. Exposed abdominal contents/organs
 - b. Apply moist sterile dressing
 - c. Cover with airtight bandage
4. Monitor ABCs
5. Treat for shock

E. Bleeding Control

1. Direct pressure over injury to soft tissue (use PPE)
2. Pressure dressing and bandage
 - a. Apply a dressing directly to the wound and hold for 15-30 seconds, don't remove.
3. Tourniquet device
 - a. Including different commercially available or improvised devices
4. Hemostatic dressing (wound packing)
 - a. Pack wound with Hemostatic agent, hold pressure for two-three minutes.
 - b. Approved dressing
 - i. Quick Clot
 - ii. Celox
5. Chest seals and dressing

F. CPR (See Section VI, above)

1. BLS CPR continues to provide effective rescue breathing and compressions

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2. EMSA 2105 added applying Automated External Defibrillator (AED) operation
3. Goal to deliver high-quality CPR

XII. Local Emergency Medical Service Authority

- A. State of California EMSA vs. Local EMSA (AKA LEMSA)
- B. Authority of State to Establish Statewide Minimums
- C. Authority of LEMSA
 1. CA LEMSA areas of responsibility and authority
 2. Authorized to set local optional skills standards and authorize peace officers
- D. Title 22, Section 100019 – Optional skills requested by agency head
- E. Medical Director of the Local EMS Agency (LEMSA)
 1. Sets training standards
 2. Approves applications
- F. Optional Skills include:
 1. Administration of epinephrine by auto-injector
 2. Supplemental oxygen therapy
 3. Administration of atropine and pralidoxime chloride
 4. Administration of naloxone
 5. Use of oropharyngeal and nasopharyngeal airways

XIII. Exercise Tests and Learning Activities

- A. Students will demonstrate competency, as directed by the instructors, in the following Skills Expertise Test Form, which minimally meets current American Heart Association standards:
 1. Assesses victim
 2. Activates emergency response system
 3. Checks for pulse
 4. Delivery of high-quality CPR
 5. Provides effective breaths
 6. Automated External Defibrillator (AED) operation
- B. Students will participate in learning activities, as directed by the instructor, which minimally include:
 1. Primary victim assessment

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2. Techniques for controlling bleeding
3. Treatment for shock
4. Use of Personal Protective Equipment (PPE)
5. Victim emergency movement

XIV. Course Closing

- A. Complete Final Questions-and-Answers Discussion
- B. Administer Post-test
- C. Collect Course Evaluation Forms
- D. Distribute Certificates of Completion