

First Aid Instructor Transition

First Aid/CPR AED Instructor Transition Course ECO

Course #21799

Statement of Purpose:

This course is a re-certification course that First Aid/CPR/AED instructors are required to complete once every two years to maintain certification as an instructor. This course provides instructors with any applicable updates to the First Aid curriculum and Title 22 policy changes. Students completing this course will be provided with the necessary curriculum updates to pass on to their respective work units.

I. Review of First Aid/CPR/AED Course content

A. Title 22

1. April 2015 changes

B. Department policy

1. 8-hour First Aid/CPR update class every two years

C. Required topics

1. Role of the public safety-first aid provider
2. CPR and AED for adults, children, and infants
 - a. *AED troubleshooting*
3. Recognition and identification of adult and pediatric patients for both medical and traumatic emergencies
4. Medical emergencies
5. Facial injuries
6. Environmental emergencies
7. Bites and stings
8. Poisoning
9. Identify signs and symptoms of psychological emergencies

10. Patient movement
11. Tactical and rescue first aid principles applied to violent circumstances
12. Orientation to the EMS system
13. Trauma emergencies
14. Legal issues
15. Safety protocols

II. Integration with EMS to include Criminal Mass Casualty Incident

A. Components of EMS

1. Dispatcher, 911
2. First Responder
3. Emergency Medical Technician (EMT-B)
4. Paramedic (EMT-P)
5. Receiving Facility (Hospital)

B. EMT-B and Paramedics may be part of response team

1. Law enforcement will provide security for fire department response team
2. Law enforcement may assist with triage

C. Self-care and partner care while awaiting EMS

1. Use your equipment on yourself and your partners' equipment on them

III. Minimum equipment for first aid kits

A. Personal protective equipment

1. Gloves
2. CPR mask or barrier device

B. Trauma equipment

1. Tourniquets

2. Trauma dressings

IV. Identify signs and symptoms of psychological emergencies

A. Pre-existing conditions

1. Mental illness

- a. *May mirror shock symptoms*

2. Developmental disabilities

- a. *Certain conditions like Down syndrome are more susceptible to positional asphyxiation*

V. Tactical casualty care principles

A. Active Shooter

1. Tactical rescue and First aid considerations

- a. *Movement to threat vs casualty care*

- b. *Life safety and neutralizing the threat is a priority*

- c. *Rescue teams and triage*

2. Integration with EMS

- a. *Rescue teams may include fire and ambulance personnel*

3. Tactical Emergency Care Concepts

- a. *Threat suppression*

- b. *Hemorrhage control*

- c. *Rapid extraction*

- d. *Assessment by medical*

- e. *Transport*

4. Self-aid and buddy aid

VI. Hemostatic dressings, wound packing, and chest seals

A. Hemostatic dressing

1. Types of Hemostatic Dressings

- a. *Granular type (Not used)*
- b. *Sponge (Granular in mesh pouch)*
- c. *Impregnated Gauze*
 1. Rolled
 2. "Z-Fold"
 3. 4x4 pads
 4. Trauma pads

2. State-Approved Hemostatic Dressings (check for current changes)

- a. *Quick Clot®*, *Z-medica®*
 1. Quick Clot Combat gauze®
 2. Quick Clot EMS rolled gauze, 4x4 dressing, trauma pad®
- b. *Celox®*
 1. Celox® Gauze, Z fold Hemostatic Gauze
 2. Celox® Rapid, Hemostatic Z-fold Gauze

3. Indications (When to use it)

- a. *Severe Hemorrhage*
- b. *Area not allowing proper use of a tourniquet (i.e.: Shoulder, upper femoral)*
- c. *Major open wound*

4. Contraindications (When not to use it)

- a. *Thoracic cavity*
- b. *Abdominal cavity*

- c. *Pelvic region closest to reproductive organs*
- d. *Cranial cavity/skull*
- e. *If seal had been previously broken*
- f. *Eyes*

B. Wound Packing

1. Filling the void of the wound to create surface area to apply direct pressure
2. Start on the side of the bleed
 - a. *Preferably using hemostatic-impregnated gauze*
 - b. *Regular gauze will work as well*
3. Once filled or packed, place pressure over the packing to slow or stop the bleeding
4. Do not pack wounds when associated with the following areas
 - a. *Thoracic cavity*
 - b. *Abdominal cavity*
 - c. *Pelvic cavity area near reproductive and urinary systems*
5. Four P's of wound packing
 - a. *Peel gauze off the roll*
 - b. *Push gauze into the wound against the bleeding vessel*
 - c. *Pile gauze above the level of the skin*
 - d. *Pressure dressing over the top of the wound*

C. Making a simple wound-packing practice arm

1. Why a practice tool is necessary
2. How it helps students

VII. Lifts and carries

- A. Fireman's carry
- B. Two man carry
 - 1. Fore and aft
 - 2. Side by side
- C. Shoulder or belt
- D. Shoulder drag
- E. Use of soft litters

VIII. CPR/BLS for Healthcare Providers

- A. CPR based on the 2015 American Heart Association BLS for Health Care workers
- B. Chain of survival
 - 1. Recognize cardiac emergency
 - 2. Activation of EMS
 - 3. Early use of CPR
 - 4. Rapid Defibrillation
 - 5. Effective Advanced Life support
 - 6. Post Cardiac arrest care
- C. No reassessment
 - 1. Continue until advanced medical aid arrives and relieves you
 - 2. Until true signs of life
 - a. *Watch for agonal gasps and spasms*
- D. "Recoil" of the heart during compressions
 - 1. Allow full fill of heart chambers for maximum efficiency
- E. Airway protective barriers
 - 1. Mouth to mouth

2. Mouth to mask (one-way valve)
3. Bag valve mask
 - a. *Recommended for two or more rescuers*
 - b. *Two-hand technique*
 - c. *Slowsqueeze vs speed and volume*

F. One rescuer and two-rescuer CPR

1. One rescuer
 - a. *30-2*
2. Two rescuer
 - a. *Airway is held open during compressions*
 - b. *Infant and Child Changes*
 1. *15-2*
 2. *Increases respiratory input to match higher respiratory rates*
 - c. *Second rescuer should always begin chest compressions*
 1. *Stronger and most effective*
3. Adult
4. Child
5. Infant
6. Differences in Child and Infant
 - a. *Witness vs unwitnessed*
 - b. *Two rescuer considerations*
 - c. *Infant check for response and Pulse check at the brachial artery*

G. Airway obstructions

1. Adult
 - a. *Conscious*
 - b. *Unconscious*
2. Child
 - a. *Considerations in size*
3. Infant
 - a. *5 back slaps to 5 chest compressions*
 - b. *Gravity to rescuer advantage*

IX. Breathing difficulties including asthma and COPD

- A. Assisting with Albuterol inhalers
 1. Cannot administer an inhaler
- B. COPD have the patient sit up to ease breathing

X. Assisted Naloxone

- A. Narcotic antagonist in case of overdose
 1. Nasal spray
 2. Auto-injector
 3. Officer may assist per Title 22
 - a. *Officer may administer if approved by the local EMSA director*
 4. May result in an immediate violent reaction

XI. Dental emergencies

- A. Maintain airway
 1. If the airway obstructed consider the nasal airway
 - a. *Must be approved by local EMSA director*
- B. Transport tooth in moist dressing for possible reinsertion

1. Prevent contamination

XII. Drowning

A. Environmental hazards

1. Rescue could be dangerous in open water

B. Assess to determine need for CPR or rescue breathing

1. May have to drain fluid from airway first

XIII. Assisted administration of Epinephrine auto-injector and accessing EMS

A. Must be approved by local EMSA director to administer

1. Agency head must request permission from EMSA director to conduct training and administer
2. Must be prescribed to the patient and not expired

B. If not approved by medical director can only assist

1. Must still be prescribed to the patient and not expired

XIV. Exposure to CBRN

A. Chemical

1. Remove from contaminated area
2. If dry chemical brush chemical off first before decon
3. Remove clothing
4. Flush the area with water

B. Biological

1. Symptoms will be delayed
2. Send patients to one hospital to avoid contaminating multiple locations

C. Radiological

1. Remove from contaminated area

2. Utilize time, distance, and shielding
3. Treat as thermal burn for skin burns

D. Nuclear

1. Remove from contaminated area
2. Treat as a radiological burn
3. Large contaminated area

XV. Written and/or oral assessment of cognitive skills

A. First aid scenarios

1. Students will be assigned one of the following scenarios
 - a. *Stab wound*
 - b. *Skin exposure to toxic industrial chemical*
 - c. *Allergic reaction with anaphylaxis*
 - d. *Child in the pool for an unknown period of time*
2. Students will have 10 minutes in groups to explain how they would handle the situation

XVI. Demonstration of Technical Skills Competency

A. CPR skills demonstration

1. Adult CPR and rescue breathing
 - a. *One-person adult CPR*
 - b. *Two-person adult CPR*
 - c. *Adult rescue breathing*
 - d. *Two-person adult CPR with AED*
2. Child CPR
 - a. *One-person child CPR*

- b. *Two-person child CPR*
- c. *Child rescue breathing*
- d. *Two-person child CPR with AED*

3. Infant CPR

- a. *One-person infant CPR*
- b. *Two-person infant CPR*
- c. *Infant rescue breathing*
- d. *Two-person infant CPR with AED*

B. First aid skills demonstration

1. Apply a tourniquet

- a. *Apply a tourniquet to partner*
- b. *Apply a tourniquet to self*

2. Wound packing Demonstration

- a. *Use gauze to pack wound on dummy*

3. PPE

- a. *Glove removal*
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