UC Irvine Automated External Defibrillator Program

1. Program Description

1.1 Purpose

The University of California, Irvine (UCI) is committed to the health and welfare of all members of the campus community including visitors. To improve survival rates from out-of-hospital sudden cardiac arrest, lay rescuer Automated External Defibrillator (AED) Programs are recommended by the American Heart Association. The State of California requires all health studios and health clubs to have an AED Program in place and, therefore, Bren Events Center, Anteater Campus Recreation Center and the Crawford Hall Athletics facility are required to maintain AEDs and train staff in their use. Other sites may elect to have an AED onsite but are not required to do so. Emergency medical procedures and guidelines are set forth by the California Emergency Medical Services Authority (EMSA).

1.2 Description

An automated external defibrillator is a portable emergency medical device used to aid victims of cardiac arrest. When deployed, an AED unit is capable of analyzing cardiac rhythm for any arrhythmias in a patient. If an arrhythmia is detected the unit is able to treat these arrhythmias through defibrillation. An electric shock is administered to allow the heart to re-establish an effective rhythm. AED units are designed for use both by professional emergency responders and as well as lay people.

1.3 Program Overview

Environmental Health & Safety (EH&S) coordinates the Campus AED Program and assists departments in obtaining AED equipment and arranging CPR/AED training. Specifically the program objectives are to:

1.3.1 Outreach to areas where AED units are needed
1.3.2 Provide guidance for campus stake holders in selecting an AED unit
1.3.3 Provide guidance on the maintenance and compliance with campus and county AED regulations
1.3.4 Ensure compliance among all AED sites including maintenance of units and training of employees

2. Scope

2.1 AED Program

The UCI AED Program includes all UCI departments and individuals who keep AED units on site. The program provides oversight and support to AED Program participants on campus.
2.2 Use of an AED
Use of an AED unit can be used independently or in conjunction with cardiopulmonary resuscitation during incidences of sudden cardiac arrest on campus. Use of an AED must adhere to accepted procedures as set forth by the American Red Cross and the American Heart Association. Uses of the AED during emergency situations continue until the patient resumes pulse and breathing and/or until emergency medical responders arrive at the scene and assume responsibility.

3. Definitions

3.1 Emergency Medical Services Authority
The Emergency Medical Services Authority (EMSA) is a division of the California Department of Health and Human Services. Specific functions include development of emergency medical service guidelines; regulate education, training, and certification of EMS personnel.

3.2 Program Coordinator
The program is administered by the UCI Environmental Health and Safety Office. The program coordinator is the EH&S individual responsible for coordinating the program with the different department designate.

3.3 Department Designate
The department designate is the staff member who is responsible for mediating and coordinating the responsibilities of his or her worksite with AED regulations and the AED Program Coordinator.

3.4 Authorized Individual
Authorized Individuals are those personnel who have met the training standards of both Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) use from trainers certified through the American Heart Association or the American Red Cross, per California Code of Regulations, Title 22.

3.5 Automated External Defibrillator (AED)
AEDs provide an electrical stimulus to the chest of an unconscious person who is experiencing ventricular tachycardia or ventricular fibrillation without a pulse for the purpose of conversion to a normal heart rhythm.

3.6 Cardiac Arrest
Cardiac arrest is the medical emergency in which the heart of the victim stops circulating blood effectively due to a failure of the cardiac muscle to effectively contract.
3.7 Cardiopulmonary Resuscitation

Cardiopulmonary resuscitation or CPR is an emergency medical procedure for a victim of cardiac or respiratory arrest.

4. Responsibilities

4.1 Medical Director

4.1.1 Provides oversight for AED selection, purchase and use
4.1.2 Issues prescription required by FDA for AED purchases, and completes registration/application process (as required by state or local law)
4.1.3 Reviews response data and conducts post exposure review after unit deployment (e.g., ECG rhythm, responder and AED actions, unit performance)
4.1.4 Evaluates system to identify flaws, and recommends education and training for lay responders
4.1.5 Coordinates the program with the local EMSA.

4.2 AED Program Coordinator in EH&S

EH&S assigns responsibility for oversight of the Campus AED Program to a Program Coordinator who will:

4.2.1 Help departments acquire AED equipment and train authorized individuals
4.2.2 Conduct routine and random inspections of AED equipment for quality assurance
4.2.3 Interact with Department Designates on AED matters (e.g., inspect equipment, update AED Training Reports, download response data from AEDs after each emergency use)
4.2.4 In the event of AED emergency use, provide all event information to EMS and the medical director

4.3 AED Department Designate

Each department must designate an individual who will be responsible for:

4.3.1 Submitting a departmental AED Training Report of Authorized Individuals to the Program Coordinator in EH&S prior to obtaining AED equipment
4.3.2 Maintaining AED equipment according to manufacturer specifications
4.3.3 Ordering and replacing expired or damaged equipment through departmental funding.
4.3.4 Documenting monthly equipment inspections
4.3.5 Submitting the annual AED Training Report to EH&S
4.3.6 In the event of AED emergency use, notifying EH&S of such use by the next business day and sending a completed Patient Care Record Post-AED Use form to the Program Coordinator.

5. Specific Program Components

5.1 Obtaining the AED unit
The AED unit and related equipment (e.g. wall case, PD alarm etc.) must be purchased by the campus department wishing to house an AED unit on location. Guidance and information on particular models and unit requirements maybe done in discussion with the EH&S AED Program Coordinator.

5.2 Maintenance of Unit Supplies
In order to be in compliance with the program, the following items are necessary for each complete AED unit:
   1. Two sealed unexpired pads
   2. Spare battery
   3. Shears
   4. Razor
   5. Towels

5.3 Assigning Department Designate
Determination of a Department Designate maybe concluded among the department that will house the AED unit. Generally it is done on a volunteer basis.

5.4 Required Training
Prior to obtaining AED units and accessories, a department must provide EH&S with an AED Training Report listing those persons with completed CPR/AED training. CPR/AED training requires renewal every two years. Certification reports must be updated at the beginning of each calendar year and submitted to EH&S for tracking purposes. Departments determine the appropriate number of Authorized Individuals to cover their needs.
5.5 Unit inspections

As required by the Orange County Healthcare Agency, AED units need to be inspected at least once every month. Unit inspections will be performed by the Department Designate.

5.6 Annual Inspections

Audits of AED records will be performed on an annual basis by the EH&S program coordinator. Specifically the documents to be reviewed during each site visit will be:

1. Inspection records for the calendar year
2. Updated training documents for all authorized personnel
3. Inspection of the AED unit.
4. For alarmed wall mounted units, inspection of the trigger alarm

5.5 Incident Reporting

In the event of AED emergency use, the Department designate will submit a completed Patient Care Record Post-AED Use form to the Program Coordinator. The Program Coordinator will then submit this information to the Medical Director.

6. Sites of Interest

EH&S: www.ehs.uci.edu

Phillips AED unit parts, servicing and support:

http://www.healthcare.philips.com/main/products/resuscitation/

OC Emergency Medical Services Authority-AE:

http://healthdisasteroc.org/ems/issues/automated_external_defibrillator

California Code for AED:

http://www.emsa.ca.gov/AED

CPR/AED Training

UCI Campus Recreation Center http://www.campusrec.uci.edu/classes/safety/index.asp

American Red Cross http://www.redcross.org

American Heart Association http://www.americanheart.org
UCI Approved AED Vendor for Campus

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