Automated External Defibrillator Program

Environmental Health and Safety Office
University of Illinois at Chicago
4/7/2018
Table of Contents

Introduction ........................................................................................................................................... 2
Scope .................................................................................................................................................... 2
Responsibilities ................................................................................................................................... 2
  Environmental Health and Safety ......................................................................................................... 2
  Student Health Services .................................................................................................................... 2
  Deans, Directors, and Department Heads ............................................................................................ 3
  Departmental AED Coordinator .......................................................................................................... 3
Department AED Plans ....................................................................................................................... 3
Training ................................................................................................................................................ 3
Equipment Maintenance ..................................................................................................................... 4
Reporting Requirements ..................................................................................................................... 4
Records Retention ................................................................................................................................ 4
Annual Program Review ..................................................................................................................... 4
References: .......................................................................................................................................... 5
Appendices .......................................................................................................................................... 5
Introduction
Automated External Defibrillators (AEDs) are life-saving medical devices that can be used by trained individuals on those suffering from sudden cardiac arrest, commonly known as a heart attack. An AED attaches to a victim’s chest to assess the heart’s rhythm and, if needed, automatically determines whether or not a shock should be delivered to correct the heart’s rhythm. An adult who has just gone into sudden cardiac arrest is most likely in urgent need of defibrillation, a metered electrical charge that can often restore the heart to a normal function and save a life. It’s estimated by the American Heart Association that over 50,000 lives a year could be saved by the early use of an AED combined with prompt bystander Cardio Pulmonary Resuscitation (CPR). With basic audio and visual commands, AEDs are designed to be simple to use by anyone who has been trained. The University AED program is designed to oversee the procurement and proper care of AED’s on campus and ensure all related requirements are followed.

Scope
The Colleen O’Sullivan Law, Public Act 093-0910, as amended in Public Act 095-0712, requires at least one AED be provided at each Physical Fitness Facilities, both indoor and outdoor, which are owned or operated by the University; and have one or more persons supervising physical fitness activities. Such indoor and outdoor facilities include: swimming pools, stadiums, athletic fields, track and field facilities; tennis, basketball, or volleyball courts, including hallways and spaces directly adjacent to such facilities. AED’s may be permanently provided at these locations, or may be provided during events that qualify for requiring AED’s. In addition to this the University has provided at least one AED for all buildings and facilities. University departments or administrative units that choose to acquire an additional AED should contact Environmental Health and Safety Office (EHSO). The department or unit shall be responsible for the purchase; EHSO will provide the service and maintenance of the AED.

Responsibilities

Environmental Health and Safety Office
Environmental Health and Safety Office will oversee the University AED Program.
Responsibilities include:
- Develop and maintain the written University AED program
- Assist Departmental AED Plan Coordinators in development of departmental AED plans
- Assist Departmental AED Plan Coordinators in post incident evaluation of AED
- Approve locations within buildings where AED’s are to be installed
- Maintain and service all AED on campus, including the replacement of pads and batteries.
- Perform monthly inspections and spot checks of the public access AED’s on campus
- Maintain the University database of AED units and inform affected departments of any issues.
- Oversee Emergency Medical Service (EMS) response procedures according to Illinois state law
- Conduct an annual review of the University’s AED program and departmental AED plans, providing recommendations for improvement or remediation
- Provide and/or coordinate training to UIC staff in CPR / AED

Student Health Services
The Medical Director of Student Health Services is responsible for medical direction of the University’s AED program.
Responsibilities include:
- Develop and/or approve all medical aspects of the University AED program
- Conduct a medical review each time an AED unit is deployed at the University
- In collaboration with Environmental Health and Safety, perform an annual review of the University AED program and the efficacy of departmental AED plans

**Deans, Directors, and Department Heads**
Determine if AED units are required or desired within the department facilities, and if so:
- Contact Environmental Health and Safety regarding the purchase of approved AED units
- Provide funding for the purchase and maintenance of AED units
- Designate an AED Departmental Coordinator
- Identify departmental employees to be trained in CPR / AED

**Departmental AED Coordinator**
- Develop and maintain a written plan that conforms with the University AED program
- Ensure that Environmental Health and Safety Office is notified of any use of the department’s AED
- Ensure department personnel are trained per the training section
- Participate in annual plan reviews and post use medical reviews
- Retain training records required by this program

**Department AED Plans**
Any Department wishing to purchase an AED for its area should complete an AED Registration form (See Appendix A). Once the registration form has been submitted to EHSO, an EHSO representative will contact the Department submitting the form to discuss the requirements associated with the Program. Subsequently, the Department requesting the AED will be required to complete a Departmental AED Plan (template included in Appendix B). At a minimum the following components are to be included in the plan:

- Identification of Departmental AED Coordinator
- Identification of required ancillary equipment
- Location and/or assignment of AED units and supplies
- Departmental Responsibilities, including procedures for:
  - Contacting University Police
  - Training Requirements / Listing of trained Departmental Personnel
  - Post event debriefing
  - Recordkeeping

A Departmental AED binder should be maintained by the Departmental AED Coordinator. The Binder should include:
- The University AED Program
- The Departmental AED Procedure
- Post incident AED Utilization Forms

**Training**
Cardio Pulmonary Resuscitation (CPR) / AED training is mandatory for certain job titles, e.g. University Police, Athletic Trainers, Nurses, Electricians, etc. If used for special events, ushers and event staff may also need to be trained. Otherwise, University departments with AED units strategically installed within their buildings are required to have trained volunteers within their units who may be called upon to respond to a cardiac arrest situation. It is up to the department as to how many personnel are trained, but shall have at least one individual trained. CPR and AED training
requests should be directed to Environmental Health and Safety Office (EHSO); training coordinator, who will assist in arranging for the class.

In addition to the certified CPR and AED training, the selected departmental personnel should also be trained on the University AED Program elements which include:

- Emergency Medical Service activation procedures and University reporting requirements
- AED Locations (within a given building)

Recertification and training is required every 2 years. Records are to be maintained by the Departmental AED Coordinator, and the EHSO Training Coordinator.

**Equipment Maintenance**

All AED’s and ancillary equipment shall be maintained in a constant state by EHSO; who shall be contacted with any issues regarding the units. If for some reason a public access AED needs to be taken out of service (e.g. off-site maintenance) Environmental Health and Safety Office (EHSO) shall be contacted at firesafety@listserv.uic.edu, and advised. EHSO will assist in sending the unit off-campus for service, ordering replacement parts, supplies, etc. EHSO will also replace the AED with another (if available) or expedite getting it back in service.

**Reporting Requirements**

An AED Utilization Form (Appendix B) must be completed every time an AED unit is deployed during a medical emergency, regardless of whether shocks were actually administered. The Departmental AED Coordinator is responsible for the collection of information and completion of the AED Utilization Report. The Departmental AED coordinator should immediately notify Environmental Health and Safety Office (EHSO) to inform them of the incident. The AED Utilization Report is to be forwarded to EHSO within 24 hours of the equipment use. EHSO will inspect the equipment after use and when satisfied that the equipment has been decontaminated, and appropriately re-stocked per the manufacturer’s recommendations, shall return it back to service.

**Records Retention**

Employee training records shall be maintained until the next training cycle is completed. All other records, including those associated with AED use or post event debriefings, should be maintained indefinitely. EHSO will maintain a copy of all employees that have been trained in CPR/AED.

**Annual Program Review**

Environmental Health and Safety Office will annually conduct a review of the University’s AED program and make appropriate recommendations for improvement or remediation. The annual review will include at least the following components:

- Review of the Illinois laws and legislations related to AED use
- Review of AED Utilization Reports
- Review of written communications with EMS office
- Review of any documentation deficiencies associated with the University AED program
References:
Illinois Automated External Defibrillator Act (410 ILCS 4/, effective Jan. 1, 2000)

The American College of Occupational and Environmental Medicine (ACOEM) Guidelines for the Use of Automated External Defibrillators (AEDs) in Workplace Setting.

Physical Fitness Facility Medical Emergency Preparedness Act (210 ILCS 74/5.25)

Cardiac Arrest Survival Act of 2000 (Public Law 106-505, Title IV)

AED Amendment to Good Samaritan Act (Illinois HB1773)

Automated External Defibrillator Code (77 Ill. Adm. Code 525)


Appendices

Appendix A: Automated External Defibrillator Response Plan Template (Departmental Plan)

Appendix B: AED Utilization Form
Automated External Defibrillator Response Plan
(Template)
Departmental Plan

4/7/2018
University of Illinois at Chicago
Environmental Health and Safety Office
Scope
The plan serves as a guide for handling medical emergencies involving cardiac arrest through the proper placement and the effective use of trained personnel and emergency medical resources.

Purpose
An Automated External Defibrillator (AED) is used to treat victims who experience sudden cardiac arrest. The AED is only for use on victims that are unconscious, have no pulse or any signs of circulation and do not have normal breathing. The AED will analyze the heart rhythm and advise the operator if a shockable rhythm is detected. Rapid treatment of ventricular fibrillation, through the application of a controlled electrical shock, is essential to the victim’s survival. Defibrillation is an electric “shock” delivered to the heart to correct certain life threatening heart rhythms.

AED Owner Responsibilities
1. Selection of employees for AED training
2. Provide necessary training and updates, as necessary
3. Coordinating equipment and accessory maintenance
4. Maintain on file specifications/ technical information sheet for each unit
5. Revision of procedures as required
6. Communication with Environmental Health & Safety office on any issues or concerns that may present

Location of Public Access AED’s
These locations shall be specific to each department, but allow the device to be easily identified. The locations also enable staff members to retrieve the AED unit outside regular business hours.
1. 
2. 
3. 
4. 

Location of Non-Public Access AED’s
This section should list all units that are for private use, and/or are used for traveling purposes and are maintained for specific groups.
1. 
2. 
3. 
4. 

Training Requirements
Employees designated to provide emergency assistance shall be trained in CPR AED. This training must comply with the requirements from the American Heart Association (AHA) or the American Red Cross for Heart Saver CPR AED standards.

AED Trained Employee Responsibilities
1. Activating internal emergency response system and providing prompt basic life support including CPR AED and First Aid according to level of training and experience.
2. Understanding and complying with requirements of this plan.
3. Assigning someone to meet responding Emergency Services and direct them to the victim.

Designated First Responders
{A list of employees trained in CPR AED should be attached to this plan.}

Equipment Maintenance
All equipment and accessories necessary for an emergency response shall be maintained in a state of readiness. **Follow manufacturer’s guidelines for proper maintenance of the equipment.**

1. The departmental AED coordinator or designee shall be responsible for conducting regular equipment inspections and having required maintenance performed and documented.
2. Following the use of emergency response equipment, each unit shall be cleaned and/or decontaminated as required.
3. Each AED unit is located in protective boxes with local alarms. When the door is opened an alarm sounds (note: this alarm does not alert anyone outside the local vicinity of the AED box).
4. Cardiac Science AED units perform a self-test every 24 hours. If the automatic self-test detects a low battery condition or a condition that requires service, the AED activates an alarm. For other types of AED’s, please reference the manufacturer’s instructions for required maintenance.

Emergency Medical Response
*Internal Notification*: If a person is unresponsive, is not breathing and does not have a pulse, immediately take the following actions:

1. **Call UICPD from campus phone dialing 5-5555 or via cell phone by dial 911**
2. Initiate CPR
3. Send for AED unit, if available bystanders are present
4. **The following information should be given to UICPD Dispatch:**
   - Type of emergency
   - Exact location, building address, room number, if possible
   - Phone number you are calling from
   - Further information requested by UICPD Dispatcher

Post Incident Procedures
*The following steps should be completed as soon as possible:*

1. Contact Environmental Health and Safety Office for retrieval of rescue data
2. Fill out AED Utilization Form, and forward promptly to Environmental Health & Safety
3. Replace pads
4. Replace any other items used (pocket mask, razors, towels, etc.)
5. Check battery life as per manufacturer standards
6. Ensure AED is ready for use

Quality Assurance
Environmental Health & Safety Office AED Coordinator will review Departmental AED Response Plans at random times throughout the year.
Following deployment of an AED, the AED Utilization form must be filled out along with the First Report of Injury, whichever is applicable.

Annual System Assessment
Each calendar year, Environmental Health and Safety Office shall conduct and document a system readiness review.

The following items must be available for review:

1. Departmental AED Plan, defining the standards of patient care and use of the AED
2. Documentation for all deployments of the AED
3. AED training documentation
Automated External Defibrillator (AED)

Utilization Form

Use this form to report any event, incident or situation that resulted in use or possible use of an AED.

Organization: University of Illinois at Chicago

Department: ________________________________

Location of victim: ________________________________

Date of incident: ________ Time of incident: ________
Name and contact information for person(s) who found the victim: ______________________

Name and contact information for person(s) who determined victim was unresponsive: ______

Name and contact information for person(s) who operated the AED: ______________________

Did the victim have a pulse? Yes   No   How was the pulse checked? ______________________

Was the victim breathing? Yes   No   How was breathing checked? ______________________

Was EMS (911) called? Yes   No   If yes, what time did that happen? ______________________

Briefly describe the event, incident, or situation that resulted in the AED being brought to this victim:
____________________________________________________________________________________
____________________________________________________________________________________

Was the AED applied to the victim? Yes   No

If yes, describe what actions the AED advised and how many times the patient was defibrillated:
____________________________________________________________________________________

**Status of patient at the time EMS personnel arrived:**

Did the victim have a pulse? Yes   No   How was the pulse checked? ______________________

Was the victim breathing? Yes   No   How was breathing checked? ______________________

Name of person completing this form: ______________________

Date completed: ______________________

Contact information: ______________________

Signature: ______________________ Date signed: ______________________

**Return this form to: AED Program Coordinator – Environmental Health & Safety Office**