



Florida Community Colleges Risk Management Consortium

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AED - Automated External Defibrillators

Sometime ago, FCCRMC was requested to survey the colleges concerning AED policies. FCCRMC learned that the college's policies varied in scope immensely for those that responded.

Since that original request, FCCRMC has researched other sources for AED Policies. Through this research, FCCRMC was able to discover that inappropriate AED policies and practices exist and negligence issues are increasing nationally. FCCRMC has not had a negative incident involving AEDs to-date. Only positive incidences reported with lives saved.

From a general liability perspective there does not appear to be any exclusions under the plan document that would apply to a claim arising out of the use of a defibrillator on a college campus. The college AED policies need to be updated to include the below. Coverage for Sovereign Immunity limits of \$100,000/\$200,000 would apply.

FCCRMC is presenting four documents for your review. After your review, FCCRMC suggests that each college review and update their AED policies accordingly with their college's general counsel. **Areas noted in RED are critical.** The four documents are attached:

1. **FCCRMC's General Counsel review of the use of AED's**
2. **Florida Statues**
 - a. 401.2915 – AED
 - b. 768.13 – Good Samaritan Act; immunity from civil liability
 - c. 768.1325 – Cardiac Arrest Survival Act; immunity from civil liability
3. **American Heart Association AED Implementation Guide** (suggested within the Federal standards)
 - a. **Chain of Survival – required steps**
 - i. Early Access – recognition and phoning 911
 - ii. Early CPR – training required
 - iii. Early Defibrillation – start as soon as AED arrives
 - iv. Early Advanced Care – trained healthcare providers
 - b. Implementation and Common Elements
 - i. Review of State and Local AED requirements
 - c. **4 Key Steps**
 - i. Medical Oversight
 1. **The FDA has cleared AEDs for public use with a physician's prescription**
 2. **Medical Professional's Key Duties**
 3. Ensuring Program Quality
 - ii. Notification of Local EMS
 - iii. Election, Placement and Maintenance of AEDs
 - iv. Designation & Quality training of On-site Responders

- d. Documentation of Procedures
 - e. Internal & External Communication Plan
 - f. Checklist – AED Program Implementation
4. URMIA **White Paper on AED**
- a. Overview
 - b. Wheaton AED Program (sample)
 - c. Forms (samples)

As a guideline to addressing current college policies FCCRMC would like to encourage the use of the American Heart Association AED Implementation Guide. **Bolded bullet points above will require attention by most colleges and review by the college's general counsel.** Even AEDs, a life saving instrument, require us to manage our potential liability.

FCCRMC's contact person information is below.

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Please feel free to contact Arlene or myself with questions. Thanks. CF

(The following groups will be included in this distribution by separate e-mails: Business Officers, Risk Managers, and Risk Manager Assistants)

CONFIDENTIAL
ATTORNEY-CLIENT MATERIAL

To: Chauncey Fagler
From: Tom Gonzalez
Re: Use of Automatic External Defibrillators
Date: October 21, 2005

Chauncey, I've looked at the materials you sent and have several thoughts. As a starting point, I don't know if we have ever discussed this, but the whole question of Automatic External Defibrillators ("AED") causes me a great deal of concern, for several reasons. Most importantly, I think the legislative scheme the Florida Legislature has given us is less than helpful and, in fact, puts users of AED at more risk than they would be without the two laws which address the devices.

Fl. Stat. §768.1325 (Cardiac Arrest Survival Act," or "CASA") provides that "any person" who uses an AED "on a victim of a perceived emergency . . . is immune from civil liability for any harm resulting from the use of the device." But there are several other aspects of the law which have to be noted, because they clarify the nature of the immunity granted. First and foremost, I note that blanket immunity is given only to the "person" who is using or attempting to use the device. Immunity is also available for the "acquirer" of the device (the college in our case), but not if any harm is caused to the victim because the "acquirer" failed to notify the local EMS medical director of the most recent placement of the AED, failed to maintain and test the device, or failed to provide training to an employee or agent of the acquirer when that employee or agent was the one using the AED.

There is an exception to the exception related to training, and that is that a failure to train will not result in civil liability for the acquirer if the employee or agent using the AED was not "reasonably expected" to use the device or the employee or agent was hired within a time frame such that training was not available. Here's my problem. First, the acquirer can be held liable even when the user is not, and clearly notice to local EMS, maintenance, and training are key to risk management. But the law also seems to envision use of the AED by persons not trained, and the law states that possibility in terms that could cause liability. For instance, when the law says that training is not required if the employee or agent using the device was not "reasonably expected" to do so, you are speaking of a jury question as to whether the use was in fact foreseeable. When the law says that a user may act in the face of a "perceived medical emergency," and defines that term to mean a "life threatening" medical condition that "requires" a response "regarding the heart," it allows second guessing of decisions made by a lay person who is trying to help.

Moreover, although the law says that training may not be necessary, Fl. Stat. §401.2915 clearly says that no one may use a AER without training, and since that law was passed after CASA, I think it, not CASA, should control and we should make clear that only use by a trained person is allowable. That being the case, I don't know how someone who does not have training would ever have the immunity granted by CASA, even though CASA specifically provides for it.

Finally, the Good Samaritan Act (“GSA”) is of little comfort, because in the face of specific legislation addressing AED, I think courts will look to the specific rather than the general and apply the specific and not the GSA. Additionally, when one’s duties involve the use of the AED and certainly when the duties require its use in appropriate situations, the GSA, which protects gratuitous acts, not those compelled by duty, may not apply.

Having said all of that, I have the following suggestions. First, I am forwarding the state’s regulations relating to AED, because they have some good provisions which we should consider incorporating in ours. The state regulations require oversight by a physician, provide for a response time, and specifically address training, including an established interval of two years for retraining.

Additionally, I don’t know where HCC got its literature. It looks great, but we should insure that it is up to date and accepted by the appropriate medical and public health authorities. I also believe that we may want to consider signage on or around the machines regarding the need for training, etc. I think we may want to include the treatment of required maintenance and repair, with checking to be effected in accordance with the manufacturers’ specs or other controlling authority. And finally, there should be some way of recording the training and other compliance.

I know these devices are great and they save lives, but I also think that lay people like me think of the devices as something I might be able to grab off the wall and save somebody. I think the law requires more, and I think we should be sure that we do all the things that are required in the law.

I hope this helps, Chauncey. Let me know if you need more or want to discuss the issue.

64 FL ADC 64E-2.039
 Rule 64E-2.039, F.A.C.
 Fla. Admin. Code Ann. r. 64E-2.039

Page 1

FLORIDA ADMINISTRATIVE CODE
 ANNOTATED
 TITLE 64. DEPARTMENT OF HEALTH
 SUBTITLE 64E. DIVISION OF
 ENVIRONMENTAL HEALTH
 CHAPTER 64E-2. EMERGENCY MEDICAL
 SERVICES

Current with rules included in the August 26, 2005
 issue of the Florida

Administrative Weekly, see scope message for
 specific rules in effect.

64E-2.039. Guidelines for Automated External
 Defibrillators (AED) in State Owned or Leased
 Facilities.

(1) Management of any state owned or leased
 facilities considering the placement of AEDs should
 seek cooperation of facility personnel and local
 training, medical, and emergency response resources.

(2) An AED is obtained by a prescription from a
 licensed physician. The prescription must accompany
 the order for the AED.

(3) Several elements should be considered to
 determine the appropriate number, placement, and
 access system for AEDs. Facility managers should
 consider:

(a) Physician oversight provided by either a facility's
 medical staff or contracted through a designated
 physician. A physician should be involved as a
 consultant in all aspects of the program.

(b) Response Time: The optimal response time is 3
 minutes or less. This interval begins from the moment
 a person is identified as needing emergency care to
 when the AED is at the side of the victim. Survival
 rates decrease by 7 to 10 percent for every minute that
 defibrillation is delayed.

(c) Lay Responder or Rescuer Training.

1. Pursuant to Section 401.2915(1), F.S., all persons
 who use an AED shall have the required training.

2. Overall effectiveness of AEDs shall be improved
 as the number of trained personnel increases. Where
 possible, facility managers should establish in-house
 training programs on a routine basis.

3. Cardiopulmonary resuscitation and AED training

can be obtained from a nationally recognized
 organization.

4. In addition to training on use of the AED, it is
 important for lay responders or rescuers to be trained
 on the maintenance and operation of the specific AED
 model in the facility.

5. Training is not a one-time event and formal
 refresher training should be conducted at least every 2
 years. Computer-based programs and video teaching
 materials permit more frequent review. Facility
 management should make periodic contact with a
 training entity to assure that advances in techniques
 and care are incorporated into their program. In
 addition to formal annual recertification, mock drills
 and practice sessions are important to maintain
 current knowledge and a reasonable comfort level by
 lay responders or rescuers. The intervals for
 conducting these exercises should be established in
 consultation with the physician providing medical
 oversight.

(d) Demographics of the Facility's Workforce:
 Management should examine the make up of the
 resident workforce and consider the age profile of
 workers. Facilities hosting large numbers of visitors
 are more likely to experience an event, and an
 appraisal of the demographics of visitors should be
 included in an assessment. Facilities where strenuous
 work is conducted are more likely to experience an
 event. Specialty areas within facilities such as
 exercise and work out rooms should be considered to
 have a higher risk of an event than areas where there
 is minimal physical activity.

(e) Physical Layout of Facility: Response time should
 be calculated based upon how long it will take for a
 lay responder or rescuer with an AED and walking at
 a rapid pace to reach a victim. Large facilities and
 buildings with unusual designs, elevators, campuses
 with several separate buildings, and physical
 impediments all present unique challenges. In some
 larger facilities, it may be necessary to incorporate the
 use of properly equipped "golf cart" style
 conveyances to accommodate time and distance
 conditions.

(f) Suggestions for proper placement of AEDs:

1. A secure location that prevents or minimizes the
 potential for tampering, theft, and/or misuse, and
 precludes access by unauthorized users.

64 FL ADC 64E-2.039

Page 2

2. An easily accessible position (e.g., placed at a height so those shorter individuals can reach and remove, unobstructed access).
3. A location that is well marked, publicized, and known among trained staff. Periodic "tours" of locations are recommended.
4. A nearby telephone that can be used to call backup, security, or 911.
5. Written protocols addressing procedures for activating the local emergency medical services system. These protocols should include notification of EMS personnel of the quantity, brands, and locations of AEDs within the facility.
6. Equipment stored in a manner whereby the removal of the AED automatically notifies security, EMS, or a central control center. If such automatic notification is not possible, emphasis should be placed on notification procedures and equipment placement in close proximity to a telephone.

(g) It is recommended that additional items necessary for a successful rescue be placed in a bag and be stored with the AED. Following are items that may be necessary for successful utilization of the AED:

1. Simplified directions for CPR and use of the AED.
2. Non-latex protective gloves.
3. Appropriate sizes of CPR face masks with detachable mouthpieces, plastic or silicone face shields, one-way valves, or other type of barrier device that can be used in mouth to mouth resuscitation.
4. Pair of medium sized bandages.
5. Spare battery and electrode pads.
6. Two biohazard or medical waste plastic bags.
7. Pad of paper and pen for writing.
8. Absorbent towel.

Specific Authority Chapter 2001-76, L.O.F., House Bill 1429. Law Implemented Chapter 2001-76, L.O.F., House Bill 1429. History--New 11-3-02.

64 FL ADC 64E-2.039
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Select Year:

The 2005 Florida Statutes

[Title XXIX](#)PUBLIC
HEALTH[Chapter 401](#)MEDICAL TELECOMMUNICATIONS AND
TRANSPORTATION[View Entire
Chapter](#)

401.2915 Automated external defibrillators.--It is the intent of the Legislature that an automated external defibrillator may be used by any person for the purpose of saving the life of another person in cardiac arrest. In order to ensure public health and safety:

- (1) All persons who use an automated external defibrillator must obtain appropriate training, to include completion of a course in cardiopulmonary resuscitation or successful completion of a basic first aid course that includes cardiopulmonary resuscitation training, and demonstrated proficiency in the use of an automated external defibrillator.
- (2) Any person or entity in possession of an automated external defibrillator is encouraged to register with the local emergency medical services medical director the existence and location of the automated external defibrillator.
- (3) Any person who uses an automated external defibrillator shall activate the emergency medical services system as soon as possible upon use of the automated external defibrillator.
- (4) Each local and state law enforcement vehicle may carry an automated external defibrillator.

History.--s. 1, ch. 97-34; s. 3, ch. 2001-76; s. 1, ch. 2005-109.

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Select Year:

The 2005 Florida Statutes

[Title XLV](#)
TORTS[Chapter 768](#)
NEGLIGENCE[View Entire Chapter](#)

768.13 Good Samaritan Act; immunity from civil liability.--

(1) This act shall be known and cited as the "Good Samaritan Act."

(2)(a) Any person, including those licensed to practice medicine, who gratuitously and in good faith renders emergency care or treatment either in direct response to emergency situations related to and arising out of a public health emergency declared pursuant to s. [381.00315](#), a state of emergency which has been declared pursuant to s. [252.36](#) or at the scene of an emergency outside of a hospital, doctor's office, or other place having proper medical equipment, without objection of the injured victim or victims thereof, shall not be held liable for any civil damages as a result of such care or treatment or as a result of any act or failure to act in providing or arranging further medical treatment where the person acts as an ordinary reasonably prudent person would have acted under the same or similar circumstances.

(b)1. Any health care provider, including a hospital licensed under chapter 395, providing emergency services pursuant to obligations imposed by 42 U.S.C. s. 1395dd, s. [395.1041](#), s. [395.401](#), or s. [401.45](#) shall not be held liable for any civil damages as a result of such medical care or treatment unless such damages result from providing, or failing to provide, medical care or treatment under circumstances demonstrating a reckless disregard for the consequences so as to affect the life or health of another.

2. The immunity provided by this paragraph applies to damages as a result of any act or omission of providing medical care or treatment, including diagnosis:

a. Which occurs prior to the time the patient is stabilized and is capable of receiving medical treatment as a nonemergency patient, unless surgery is required as a result of the emergency within a reasonable time after the patient is stabilized, in which case the immunity provided by this paragraph applies to any act or omission of providing medical care or treatment which occurs prior to the stabilization of the patient following the surgery.

b. Which is related to the original medical emergency.

3. For purposes of this paragraph, "reckless disregard" as it applies to a given health care provider rendering emergency medical services shall be such conduct that a health care provider knew or should have known, at the time such services were rendered, created an unreasonable risk of injury so as to affect the life or health of another, and such risk was substantially greater than that which is necessary to make the conduct negligent.

4. Every emergency care facility granted immunity under this paragraph shall accept and treat all emergency care patients within the operational capacity of such facility without regard to ability to pay, including patients transferred from another emergency care facility or other health care provider pursuant to Pub. L. No. 99-272, s. 9121. The failure of an emergency care facility to comply with this subparagraph constitutes grounds for the department to initiate disciplinary action against the facility pursuant to chapter 395.

(c)1. Any health care practitioner as defined in s. [456.001](#)(4) who is in a hospital attending to a patient of his or her practice or for business or personal reasons unrelated to direct patient care, and who voluntarily responds to provide care or treatment to a patient with whom at that time the

practitioner does not have a then-existing health care patient-practitioner relationship, and when such care or treatment is necessitated by a sudden or unexpected situation or by an occurrence that demands immediate medical attention, shall not be held liable for any civil damages as a result of any act or omission relative to that care or treatment, unless that care or treatment is proven to amount to conduct that is willful and wanton and would likely result in injury so as to affect the life or health of another.

2. The immunity provided by this paragraph does not apply to damages as a result of any act or omission of providing medical care or treatment unrelated to the original situation that demanded immediate medical attention.

3. For purposes of this paragraph, the Legislature's intent is to encourage health care practitioners to provide necessary emergency care to all persons without fear of litigation as described in this paragraph.

(d) Any person whose acts or omissions are not otherwise covered by this section and who participates in emergency response activities under the direction of or in connection with a community emergency response team, local emergency management agencies, the Division of Emergency Management of the Department of Community Affairs, or the Federal Emergency Management Agency is not liable for any civil damages as a result of care, treatment, or services provided gratuitously in such capacity and resulting from any act or failure to act in such capacity in providing or arranging further care, treatment, or services, if such person acts as a reasonably prudent person would have acted under the same or similar circumstances.

(3) Any person, including those licensed to practice veterinary medicine, who gratuitously and in good faith renders emergency care or treatment to an injured animal at the scene of an emergency on or adjacent to a roadway shall not be held liable for any civil damages as a result of such care or treatment or as a result of any act or failure to act in providing or arranging further medical treatment where the person acts as an ordinary reasonably prudent person would have acted under the same or similar circumstances.

History.--ss. 1, 2, ch. 65-313; s. 1, ch. 78-334; s. 62, ch. 86-160; s. 46, ch. 88-1; s. 4, ch. 88-173; s. 42, ch. 88-277; s. 1, ch. 89-71; s. 37, ch. 91-110; s. 33, ch. 93-211; s. 3, ch. 97-34; s. 1164, ch. 97-102; s. 2, ch. 2001-76; s. 3, ch. 2002-269; s. 65, ch. 2003-416; s. 1, ch. 2004-45.

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Select Year:

The 2005 Florida Statutes

[Title XLV](#)
TORTS[Chapter 768](#)
NEGLIGENCE[View Entire Chapter](#)

1768.1325 Cardiac Arrest Survival Act; immunity from civil liability.--

(1) This section may be cited as the "Cardiac Arrest Survival Act."

(2) As used in this section:

(a) "Perceived medical emergency" means circumstances in which the behavior of an individual leads a reasonable person to believe that the individual is experiencing a life-threatening medical condition that requires an immediate medical response regarding the heart or other cardiopulmonary functioning of the individual.

(b) "Automated external defibrillator device" means a defibrillator device that:

1. Is commercially distributed in accordance with the Federal Food, Drug, and Cosmetic Act.

2. Is capable of recognizing the presence or absence of ventricular fibrillation, and is capable of determining without intervention by the user of the device whether defibrillation should be performed.

3. Upon determining that defibrillation should be performed, is able to deliver an electrical shock to an individual.

(c) "Harm" means damage or loss of any and all types, including, but not limited to, physical, nonphysical, economic, noneconomic, actual, compensatory, consequential, incidental, and punitive damages or losses.

(3) Notwithstanding any other provision of law to the contrary, and except as provided in subsection (4), any person who uses or attempts to use an automated external defibrillator device on a victim of a perceived medical emergency, without objection of the victim of the perceived medical emergency, is immune from civil liability for any harm resulting from the use or attempted use of such device. In addition, any person who acquired the device, including, but not limited to, a community association organized under chapter 617, chapter 718, chapter 719, chapter 720, chapter 721, or chapter 723, is immune from such liability, if the harm was not due to the failure of such acquirer of the device to:

(a) Notify the local emergency medical services medical director of the most recent placement of the device within a reasonable period of time after the device was placed;

(b) Properly maintain and test the device; or

(c) Provide appropriate training in the use of the device to an employee or agent of the acquirer when the employee or agent was the person who used the device on the victim, except that such requirement of training does not apply if:

1. The employee or agent was not an employee or agent who would have been reasonably expected to use the device; or

2. The period of time elapsing between the engagement of the person as an employee or agent and the occurrence of the harm, or between the acquisition of the device and the occurrence of the harm in any case in which the device was acquired after engagement of the employee or agent, was not a reasonably sufficient period in which to provide the training.

(4) Immunity under subsection (3) does not apply to a person if:

(a) The harm involved was caused by that person's willful or criminal misconduct, gross negligence, reckless disregard or misconduct, or a conscious, flagrant indifference to the rights or safety of the victim who was harmed;

(b) The person is a licensed or certified health professional who used the automated external defibrillator device while acting within the scope of the license or certification of the professional and within the scope of the employment or agency of the professional;

(c) The person is a hospital, clinic, or other entity whose primary purpose is providing health care directly to patients, and the harm was caused by an employee or agent of the entity who used the device while acting within the scope of the employment or agency of the employee or agent;

(d) The person is an acquirer of the device who leased the device to a health care entity, or who otherwise provided the device to such entity for compensation without selling the device to the entity, and the harm was caused by an employee or agent of the entity who used the device while acting within the scope of the employment or agency of the employee or agent; or

(e) The person is the manufacturer of the device.

(5) This section does not establish any cause of action. This section does not require that an automated external defibrillator device be placed at any building or other location or require an acquirer to make available on its premises one or more employees or agents trained in the use of the device.

(6) An insurer may not require an acquirer of an automated external defibrillator device which is a community association organized under chapter 617, chapter 718, chapter 719, chapter 720, chapter 721, or chapter 723 to purchase medical malpractice liability coverage as a condition of issuing any other coverage carried by the association, and an insurer may not exclude damages resulting from the use of an automated external defibrillator device from coverage under a general liability policy issued to an association.

History.--s. 1, ch. 2001-76; s. 3, ch. 2004-345; s. 3, ch. 2004-353.

¹**Note.**--Section 4, ch. 2001-76, provides that:

"No later than January 1, 2003, the Secretary of the Department of Health shall adopt rules to establish guidelines on the appropriate placement of automated external defibrillator devices in buildings or portions of buildings owned or leased by the state, and shall establish, by rule, recommendations on procedures for the deployment of automated external defibrillator devices in such buildings in accordance with the guidelines. The Secretary of the Department of Management Services shall assist the Secretary of the Department of Health in the development of the guidelines. The guidelines for the placement of the automated external defibrillators shall take into account the typical number of employees and visitors in the buildings, the extent of the need for security measures regarding the buildings, special circumstances in buildings or portions of buildings such as high electrical voltages or extreme heat or cold, and such other factors as the Secretaries determine to be appropriate. The Secretary of the Department of Health's recommendations for deployment of automated external defibrillators in buildings or portions of buildings owned or leased by the state shall include:

"(a) A reference list of appropriate training courses in the use of such devices, including the role of cardiopulmonary resuscitation;

"(b) The extent to which such devices may be used by laypersons;

"(c) Manufacturer recommended maintenance and testing of the devices; and

"(d) Coordination with local emergency medical services systems regarding the incidents of use of the devices.

"In formulating these guidelines and recommendations, the Secretary may consult with all appropriate public and private entities, including national and local public health organizations that seek to improve the survival rates of individuals who experience cardiac arrest."

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AED

Automated External Defibrillation



Making the Commitment to Saving Lives

Each year, more than 950,000 adult Americans die from cardiovascular disease, making it the No. 1 cause of death in the United States. At least 250,000 Americans die of sudden cardiac arrest (SCA) before they reach a hospital. SCA strikes people of all ages and all degrees of fitness. It usually strikes without warning. Many of these lives can be saved if bystanders quickly phone 911 and begin CPR, and if trained responders provide defibrillation within minutes.

By choosing to implement an AED (automated external defibrillator) program at your facility or site, you have made the commitment to saving lives and to improving the Chain of Survival in your workplace community.

Most often, SCA is caused by an abnormal heart rhythm called ventricular fibrillation (VF) that prevents the heart from pumping blood. The treatment for VF is defibrillation. Defibrillation is the delivery of an electric shock to the heart that stops VF and allows a normal heart rhythm to resume.

Providing defibrillation on-site with an AED increases survival rates for VF cardiac arrest. In places where AED programs provide immediate CPR and deliver the first shock within 3 minutes after collapse, reported survival rates from VF cardiac arrest are as high as 74%. Currently only about 5% of all sudden cardiac arrest victims survive in places where no AED programs have been established to provide prompt CPR and defibrillation.

Defibrillation is the only effective therapy for ventricular fibrillation. For each minute that passes without CPR and defibrillation, the chance of survival decreases 7% to 10%.

What is the Chain of Survival?



More people can survive SCA if bystanders act quickly to start the Chain of Survival. The Chain of Survival consists of the actions needed to treat a life-threatening emergency.

The adult Chain of Survival has 4 vital links:

Early Access—Recognizing that an emergency exists and quickly phoning EMS (emergency medical services). In most communities, 911 is the EMS number.

Early CPR—Starting CPR immediately after cardiac arrest. CPR circulates oxygen-rich blood to the brain and heart. It buys time for the victim until defibrillation can be performed.

Early Defibrillation—Defibrillating the victim as soon as the AED arrives. This is most effective within 3 to 5 minutes.

Early Advanced Care—Trained healthcare providers arriving quickly to give advanced care.

With a strong **Chain of Survival** in every workplace and community, more lives can be saved.

In most cases of cardiac arrest, the critical link is **Early Defibrillation**.

Implementing Your Facility's AED Program

The following information will help you develop an AED program for your site. This guide focuses on things to consider when developing your program. It highlights key factors and provides options to help you make necessary decisions

about medical oversight of your program, state and local requirements for AEDs, location of defibrillators, notifying local EMS, and selection of people to serve as trained responders for the program.

The **American Heart Association** is dedicated to helping businesses and communities establish AED programs. Staff is available to assist you throughout the decision-making process and to develop training solutions that meet your specific needs. For more information, contact us at **1-877-AHA-4-CPR (1-877-242-4277)**.

The Goal of an Effective AED Program

The goal of an AED program is to increase the rate of survival of people who have sudden cardiac arrests. Effective AED programs deliver a shock to a victim within 3 to 5 minutes of

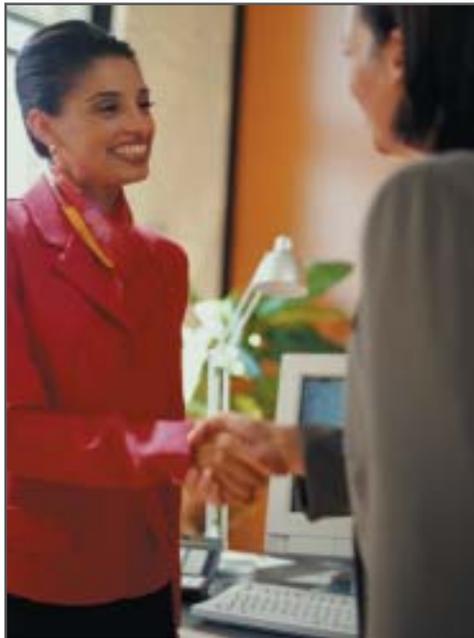
collapse (3 minutes is optimal, 5 is acceptable). For every minute without immediate CPR and defibrillation, the odds of survival decrease 7% to 10%. Because more AEDs have become available, lives are saved daily.

Common Elements in All AED Programs

The environment where your AED program is being implemented will drive the design of the program. But all AED programs must include choosing a program coordinator, ensuring that the program receives the support of key decision-makers, and reviewing state and local requirements for AED programs.

Program Coordinator

Choosing a dedicated program coordinator is important to implementing a successful AED program. A program coordinator is someone on-site who can be responsible for day-to-day activities of the program. One of the program coordinator's most important responsibilities throughout implementation is communicating with key decision-makers, selected program responders, employees, and the public.



Support from Decision-makers

During the initial planning phase of your AED program, it is critical to get buy-in from anyone who

will influence decisions about the program. Who these people are will vary depending on the setting of the program. Invite decision-makers and influencers to a presentation about the importance of AED programs and the need for AEDs in your organization. This will help you to identify program supporters and potential barriers early in the process. Developing a cross-functional team of representatives from different areas in your organization also is highly recommended.

Review of State and Local AED Requirements

State and local requirements for AED programs play an important role in setting program constraints. Most states specify what type of responder training is expected, how to work with state and local EMS, and how to maintain or renew the AED program. Be aware of these key requirements as you start implementation:

- Most state laws require a state-licensed physician to act as a medical supervisor of the program.
- Most state laws require you to notify local EMS of AED programs or to register AED programs with local EMS.
- Most state laws require that responders complete a nationally recognized training CPR/AED course for lay responders, such as the American Heart Association's *Heartsaver AED* course.

Legal Concerns?

All 50 states have Good Samaritan laws. These provide limited immunity for certain AED program participants. Some states also provide limited immunity for the company or facility that acquires the AED(s), the people providing training, and the person who uses the AED. The federal Cardiac Arrest Survival Act also provides limited immunity for lay rescuers and acquirers of the AED.

“The expense was minimal. The training was very easy. When we got the defibrillators, our goal was to have half of our staff trained in their use.”

—Loren Sheffer
Owner,
Volvo Dealership,
Delray Beach, FL

Implementation Tips

Who are your program's decision-makers and influencers?

They can include

- Risk management
- Environmental health and safety
- Legal
- Human resources
- Corporate security
- Building managers
- Property owners
- Tenants
- Board members
- Union leaders

Implementation Tips

Where can we find our state's AED regulations?

To view a summary of your state's legislation as it relates to AED programs, go to www.americanheart.org/cpr. Click on Corporate Training, AED programs, AED Legislation-State Requirements. For more detailed information, contact the American Heart Association or your state EMS office.

The 4 Key Steps for Implementing Your Facility's Successful AED Program



STEP 1: Medical oversight and quality improvement



STEP 2: Notification of local EMS



STEP 3: Selection, placement, and maintenance of AEDs



STEP 4: Designation and quality training of on-site responders

STEP 1: Medical Oversight and Quality Improvement

The US Food and Drug Administration (FDA) has cleared AEDs for public use with a physician's prescription. The physician also can offer leadership and medical expertise to ensure the safe implementation of an AED program. Other medical professionals, such as occupational health nurses provide "medical oversight" (medical support and supervision) of the program as long as a physician provides the prescription.

What is Medical Oversight?

The role and time commitment of the physician or healthcare provider offering medical support and oversight for the program varies depending on the size and other characteristics of the program. His or her main responsibility is to oversee the initial implementation process. Someone else should be designated program coordinator and be responsible for day-to-day program implementation.

As an advocate of the AED program, the medical professional should be able to provide the energy and dedication needed to help get the program started, and then provide ongoing guidance and support. He or she also can serve as a visible spokesperson for the program.

The program's medical professional also approves the initial AED training. His or her level of involvement in hands-on training often depends on the size of the program, the availability of other appropriate instructors, and the professional's management style. In some programs he or she may

be directly involved in training sessions. In others he or she simply may provide guidance to the program coordinator.

Medical Professional's Key Duties

- Providing medical leadership and expertise
- Serving as an advocate and possibly a spokesperson for the program
- Identifying and reviewing local and state AED regulations
- Assisting in coordinating the program with local EMS
- Helping develop program procedures, such as the following:
 - Internal Medical Emergency Response Plan (MERP)
 - Training plan for targeted responders
 - Maintenance plan for the AEDs
 - Quality review and improvement plan for the AED program
 - Internal communication plan

Implementation Tips

Where can we go to find a medical professional to oversee our program?

Potential resources include:

- Emergency medicine physicians
- Occupational health physicians or nurses
- State and local medical societies
- Local EMS
- State EMS office

Ensuring Program Quality

The physician or other medical professional supervising the program also guards the program's quality. He or she should

- Help develop the emergency response procedure for the facility
- Advise about the proper location of AEDs
- Advise about how responders should be notified of an emergency
- Conduct a review each time the AED is used. The main purpose of the review is to give responders positive feedback and practical suggestions for improvement. Talking to rescuers about their feelings following the emergency is important. The review allows problems in the program to be quickly spotted and fixed.



STEP 2: Notification of Local EMS

Notifying the EMS system of your AED program is a key step in implementing the program. Most states require you to coordinate your AED program with local EMS and to provide follow-up data to EMS after any use of the AED. These are important responsibilities. In states that require registration or application for AED programs, the medical professional or the program coordinator completes this process. Regardless of your state's requirements, you should view local EMS as a partner in placing AEDs and in developing internal procedures for quality improvement and incident review.

Key Issues to Discuss with Local EMS

- Location of AEDs on the property
Tell EMS where AEDs are located on-site in order to save critical minutes during a cardiac emergency. Depending on the capabilities of the EMS system, the dispatchers may be able to tell 911 callers where the AED is if callers do not know.



Implementation Tips

- Transfer of patient care
Develop written policies and procedures for transferring patient care to local EMS when EMS arrives at the emergency. This process will be based on existing EMS protocols. The written policies and procedures must be communicated to the on-site trained rescuers. This step is critical so that the program responders will be prepared for the action EMS personnel take once they arrive at the scene.

How should we notify EMS about our facility's AED program?

The medical professional providing oversight for your program will help you to coordinate EMS notification. Also, a sample EMS notification letter can be found at www.americanheart.org/cpr. Click on Corporate Training, AED programs, Sample Notification Letter to City EMS Director.

In some cases a formal registration process is required. Contact your local EMS system for help.

- Sharing event data
Depending on the type of AED, cardiac event information is recorded on a removable data card or obtained by connecting the AED to an off-site computer via modem.

All AEDs capture heart rhythm and device data. This data should be collected and shared by the AED program coordinator and EMS.

State regulations and the practices of local EMS will drive the decision to capture more data. Some states require that a standard "incident report" or "AED use sheet" be completed and submitted to the state EMS office or the local EMS agency. Information about this requirement is most often provided in the state AED registration materials.

STEP 3: Selection, Placement, and Maintenance of AEDs

Choosing Your AED

Several AEDs on the market are suitable for workplace and community AED programs. The American Heart Association does not recommend one device over another. Selection of an AED will be influenced by the needs of the program site. You can find a current list of FDA-cleared AEDs at www.americanheart.org/cpr. Click on Corporate Training, AED programs, FDA Cleared AEDs.

Implementation Tips

Where should AEDs be placed in our facility?

Possible locations include

- Security guard station
- Main reception area
- Walls of main corridors
- Cafeteria
- Fitness facility
- Near elevators
- In secured or restricted access areas

cardiac arrest may be higher, such as corporate health clubs, or that are hard to reach quickly. Also consider areas where many people gather, such as cafeterias. Suggestions for AED placement are located above.

Below are additional questions to help guide your placement strategy. There are no right or wrong answers to these questions. Once you know the answers to these questions, it will be easier for you to decide where to place AEDs.

Should the AED be secured or unsecured?

A secured AED is one that is locked in an office, a wall-mounted cabinet, or other enclosed space. An unsecured device typically is placed in a public area and is not locked.

Will the AED have a notification system?

- Automatic Notification System

This type of system automatically notifies trained responders when the AED is removed or its cabinet is opened. This notification may be sent directly to local EMS or to an in-house security system that will then notify EMS.

- Audiovisual Alarm

This type of alarm activates lights or an audio alarm when the AED is removed or its cabinet is opened.

Maintaining Your AED

Conduct scheduled and preventive maintenance checks according to the manufacturer's recommendations. The program coordinator or

another designated person can do the maintenance checks. This person develops a written checklist to assess the readiness of AEDs and their supplies. This checklist supplements regularly scheduled, more detailed maintenance checks recommended by the manufacturer. At a minimum, the checklist should include the following:

- Verify placement of AEDs (are they where they are supposed to be?)
- Verify battery installation and expiration
- Check the status/service indicator light
- Inspect exterior components and sockets for cracks or other damage
- Check supplies (razor, towel, barrier device, scissors, extra battery, disposable gloves, and an extra set of electrode pads)

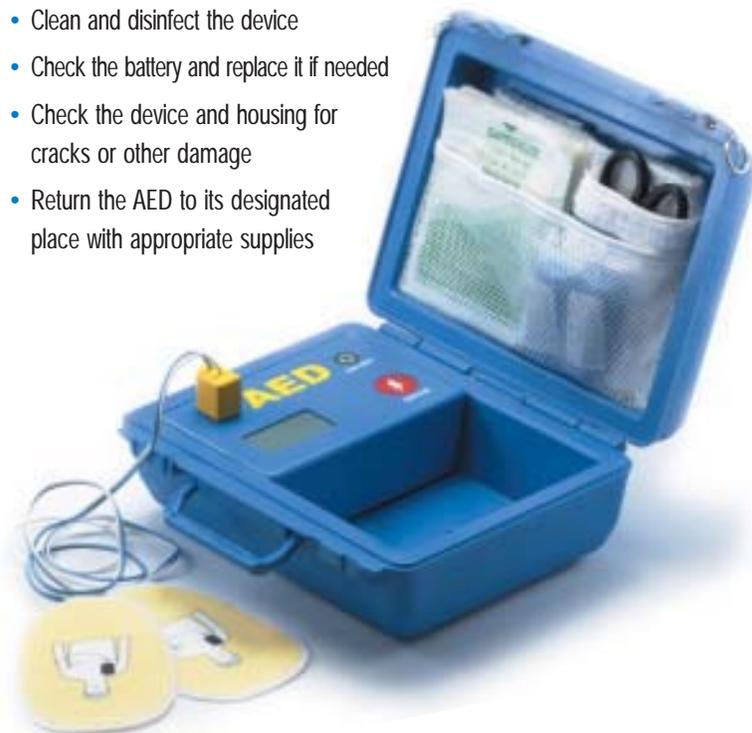
AED Characteristics

- Lightweight and portable
- Easy to use, safe and effective
- Automatically analyzes heart rhythms
- Determines whether defibrillation is advised
- Guides the user through defibrillation
- Follows comprehensive "self-checking" protocols
- Prompts the rescuer to begin CPR

Putting AEDs Back Into Service After an Emergency

After a cardiac arrest occurs, it is critical to get the AED back into service as soon as possible. The written procedure for maintaining the AED should contain a section on this process. Here is a list of activities that should be included:

- Check and replenish supplies as appropriate (includes electrode pads, towel, razor, barrier device, and disposable gloves). Make sure that someone is designated to order and replenish supplies and does so.
- Clean and disinfect the device
- Check the battery and replace it if needed
- Check the device and housing for cracks or other damage
- Return the AED to its designated place with appropriate supplies



STEP 4: Designation and Quality Training of On-site Responders

Identifying Responders

The American Heart Association recommends that as many trained responders as possible have access to defibrillators. In a perfect world everyone would be trained. But you will need to consider budget and staff time when deciding how many can be trained. When identifying responders, consider people who typically are on the premises and already respond to emergencies as part of their jobs. Security guards and members of safety response teams are excellent candidates for becoming trained responders. Another possibility is people willing to respond to cardiac emergencies as part of the AED program, such as office personnel or residents, depending on the AED program site.

Implementation Tips

The American Heart Association recommends a regular review of CPR and AED skills every 6 months for all potential AED users.

Once you identify appropriate responders, make sure to obtain approval from their department heads. If these department heads are not already identified as decision-makers, begin including them in program updates. This is

important. Also make sure that there are appropriate budget allocations for proper training.

Training Requirements

To determine how to train your responders, review your state and local requirements for AED programs. These requirements will outline acceptable curriculums, training organizations, and renewal intervals. From there you can plot your training program schedule.

Initial training should teach responders

- How to recognize the warning signs of a heart attack
- How to respond to an emergency



Implementation Tips

Who are possible candidates to respond?

Potential responders could include

- Security guards
- People already trained in CPR
- Fire wardens
- Building managers
- Employee volunteers
- On-site property management staff

- Why and how to activate local EMS
- How to buy time for the victim by performing 1-rescuer CPR until the AED arrives
- How to assess the patient and determine if you should use an AED
- How to attach AED pads and ensure that the device is used properly
- How to follow safety protocols to protect the user and bystanders
- How to deal with unusual situations (such as a victim with an implanted defibrillator or a victim lying in water)
- How to use all emergency response skills in an emergency

Response Procedures

Responders also need to be trained in the internal Medical Emergency Response Plan (MERP). Typically the oversight physician or medical professional creates the MERP. The MERP should include how responders will be notified of an emergency and the location of the victim, who will call 911, and where the AED is located. A sample MERP is included for you to tailor to your environment. The responders also must be informed of the policy and procedure for transferring patient care to local EMS upon their arrival.

Skills Reviews

Conducting skills reviews is critical to ensure that responders are prepared to perform the necessary skills during an emergency. Examples of how to review skills include performing mock drills, scenario practice, and demonstrations of CPR and AED skills. The Student Refresher CD included in American Heart Association training materials also can be used to remind responders of critical information. The goal is to have trained responders practice activating the emergency response system, getting an AED to the victim within 3 to 5 minutes of collapse, and using their CPR and AED training.

Retraining

Nationally recognized courses, such as *Heartsaver AED*, have a standard renewal time frame. The American Heart Association recommends that formal retraining occur every 2 years, in addition to conducting regular skills reviews.

Documentation of Procedures

Written procedures should guide AED program implementation. These procedures should help trained responders, decision-makers, and employees involved in the AED program understand practices and expectations. Once written procedures are in place, they should be distributed to all appropriate program participants, then updated regularly. Following are sample outlines of plans for various policies and procedures that should be included in the overall AED program implementation plan:

Internal Medical Emergency Response Plan (MERP)

(A sample plan can be found at www.americanheart.org/cpr. Click on Corporate Training, AED programs, Sample Internal MERP.)

- Activating the system
 - How responders will be notified (directly or through a point of contact within the program)
 - Who will call 911
 - How employees will be informed of the MERP
- Location of AEDs and how they are accessed (secured or unsecured)

Training Plan

- Who will be trained and serve as responders
- What course will be used
- Where training will take place
- What the time frame will be for training and renewal
- How skills reviews will be conducted



Maintenance Plan

- Who will be responsible for performing maintenance checks
- What maintenance procedures will be included (manufacturer's recommendations as well as internal)
- When checks will take place
- How AEDs will be put back into service following an emergency
- Who will be responsible for ordering and restocking supplies

Transfer of Patient Care Procedures

Transfer of patient care procedures outline what the response team should do once EMS arrives. They also prepare the response team for the actions that the EMS professionals will take when they are on the scene.

- Should be developed with local EMS and then communicated to the internal response team
- Should be based on existing EMS protocols

Post-event Procedures

- Evaluate internal MERP

The event review provides important feedback for responders to the emergency. The responders should receive comments on specific activities that were performed properly and according to the internal MERP and actions that can be improved. Some examples to use in your post-event procedures are

- Evaluate response times
 - How much time elapsed between finding the victim and calling 911
 - How much time elapsed between activating the internal MERP and getting the AED to the victim
- Identify strategies for improvement
 - Discuss and implement strategies
 - Incorporate improvements into skills reviews and mock drills
- Provide emotional support

Responders to a cardiac emergency need significant support to ensure that the event does not damage their emotional health. It is important to allow responders to voice their fears and concerns in a non-threatening environment. The AED program's medical professional should ensure that proper attention is provided to responders soon after the event. Also, local EMS can recommend community resources to support responders following an emergency.

- Monitor outcome

In conjunction with local EMS, develop a communication system to follow victims of cardiac emergencies through the healthcare system. Incorporate information about outcome into the responders' feedback.

Implementation Tips

What tools can be used to activate our facility's emergency response procedures?

Tools could include

- Overhead paging system or intercom
- Beepers for trained responders
- Phone tree with a dedicated emergency response line
- Internal radio dispatch

Internal and External Communication Plan



External Promotion

Depending on the AED program site, the program may be promoted to clients customers, vendors, and the outside community. This campaign can be conducted through publications distributed outside the organization and through local newspapers or other media. Media will be more interested in writing a story about the program when the worksite is involved in saving a life. They will most likely want to interview the victim and the responders involved.

Internal Promotion

After initial implementation of the AED program, provide information to all program participants (employees, visitors, etc) about what an AED program is, why it is important, and how to activate the MERP. To maximize the program's effectiveness, everyone must know how and when to notify trained responders to get to the scene of an emergency. Information can be communicated via any of the following:

- Company-wide or internal newsletter
- Email
- Posters
- Stickers identifying locations of AEDs
- Staff or departmental meetings
- Membership meetings
- Speaker luncheon
- Closed-circuit TV
- Phone stickers
- Paycheck flyers



Implementation Tips

Create an Internal Newsletter

Start promoting your facility's AED program with an article in an internal publication or email. Include sidebars featuring cardiac arrest statistics (e.g., most cardiac arrests occur outside the hospital) and stories or testimonials about local CPR/AED saves.

Follow up with a series of articles highlighting each link in the Chain of Survival and the ways in which people can work to strengthen each link.

To help in the distribution of ECC materials, the American Heart Association has partnered with three companies that provide high quality customer service and support. To order, contact one of the following:

For more information on training contact:

Channing Bete Company

One Community Place
South Deerfield, MA 01373-0200
Phone: 1-800-611-6083
Fax: 1-800-499-6464
www.channing-bete.com

Laerdal Medical Corporation

167 Myers Corners Road
PO Box 1840
Wappingers Falls, NY 12590-8840
Phone: 1-888-LMC-4AHA (562-4242)
Fax: 1-800-227-1143 or
1-845-298-4545
www.laerdal.com

WorldPoint ECC, Inc.

151 S. Pfingsten Road, Suite E
Deerfield, IL 60015
Phone: 1-888-322-8350
Fax: 1-888-281-2627
www.worldpoint-ecc.com



*Learn and Live*SM

National Center
7272 Greenville Avenue
Dallas, Texas 75231-4596
www.americanheart.org/cpr

AED Program Implementation Checklist

Identify:

Program decision-makers and influencers	___	Method for ensuring AED readiness	___
Physician to provide prescription for AED	___	Method for scheduling and conducting AED maintenance checks	___
Medical oversight (physician or other medical professional)	___	Method for educating participants on how to activate the internal MERP	___
Targeted responders	___	Method for internally and externally promoting the AED program and Chain of Survival for participants	___
State and local requirements for AEDs	___	Method for capturing data	___
Local EMS system requirements (if applicable)	___	Method for patient care transfer to local EMS agency	___

Decide:

Type of AED	___	Method for event review	___
Placement of AEDs	___	Methods for quality improvement	___
Limited vs. open accessibility	___	Method for rescuer debriefing	___
Secured vs. unsecured	___	Method for putting AED back into use	___
Automatic notification system: yes or no	___	Method for monitoring patient outcome	___
Audio-visual alarm: yes or no	___		

Options on AEDs

Voice/environmental data: yes or no	___	Internal response procedures for use of the AED (reflect site-specific variables such as type of AED, activation method, hazards, etc.)	___
Manual override: yes or no	___	AED maintenance procedure	___
Display screen: yes or no	___	Transfer of patient care procedure (coordinate with local EMS)	___
Modem, data card, chip or cassette tape	___		

Number of AEDs

Method of notifying EMS	___		
Method of activating internal Medical Emergency Response Plan (MERP)	___		
Number of employees to be trained	___		
Training program	___		
Retraining program and interval	___		
Skills review (refresher, update, etc.)	___		
Formal retraining	___		

Write:

Internal response procedures for use of the AED (reflect site-specific variables such as type of AED, activation method, hazards, etc.)	___
AED maintenance procedure	___
Transfer of patient care procedure (coordinate with local EMS)	___

Contact:

State office of EMS for registration purposes (if applicable)	___
Local EMS agency	___
Local dispatch center	___
American Heart Association for training information	___
AED manufacturer if AED maintenance is needed	___

Automated External Defibrillators and PAD Programs



An URMIA White Paper
An URMIA R&D Committee Project
September, 2001

URMIA White Paper
Automated External Defibrillators and PAD Programs
An URMIA Research and Development Committee Project

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URMIA WHITE PAPER: AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

This white paper explains the benefits and costs of AEDs and PAD programs so you can make more informed decisions or recommendations about campus AEDs.

(The material below has been adapted from the American Heart Association, the Public Access Defibrillation Program Provider Manual, and many other sources.)

AEDs: What Are They, and Why Would I Want Them On My Campus?

Sudden cardiac arrest (SCA) is responsible for approximately 250,000 deaths each year in the United States, according to the American Heart Association.¹ Cardiac arrest is caused by a disruption of the heart's normal rhythm. Early CPR (cardiopulmonary resuscitation) and rapid defibrillation (de-fib"rih-LA'shun), combined with early advanced emergency care, can result in significantly improved long-term survival rates for witnessed ventricular fibrillation (ven-TRIK'u-ler fib"rih-LA'shun). Ventricular Fibrillation (VF), a chaotic heart rhythm, is the most common heart irregularity resulting in cardiac arrest. A lifesaving technique called *defibrillation* is effective therapy in the treatment of VF. This technique, which restores the heart's normal rhythm, involves the administration of an electric shock within minutes of VF onset.²

VF is a heart rhythm with lethal implications if not treated. Without intervention, VF will deteriorate into *asystole*, or flat line, which is uniformly fatal. Without defibrillation, the chances of survival plummet 7% to 10% with each passing minute.³ Survival is dependant on 1) early recognition of the cardiac arrest, 2) early administration of CPR and defibrillation, and 3) additional lifesaving care from the Emergency Medical Service (EMS) system. Early CPR and defibrillation by bystanders can buy time until EMS personnel arrive. Early bystander CPR, while buying time, will usually not be successful in resuscitation *without* defibrillation. Access to defibrillation is necessary within four to five minutes of SCA onset. IMPORTANT NOTE: Defibrillation only treats a beating heart. In cardiac arrest without VF, the heart doesn't respond to electric current; medications and breathing assistance are needed instead.

Public Access Defibrillation (PAD) programs are an important means for providing defibrillation in settings where large numbers of people congregate. *Automated External Defibrillators* (AEDs) make it possible for trained lay rescuers to deliver defibrillation prior to the arrival of EMS. It is important to note that, just as not all victims of heart problems respond to CPR, neither do all victims need defibrillation. Therefore, to determine whether a shock is necessary, it is critical to have nearby either professionals with manual defibrillation equipment and the expertise to read electrocardiograms, or an AED. Emergency medical service providers use manual defibrillators with electrocardiograms (EKG or ECG). They must be experts in reading the heart rhythms that show up on these EKGs to know when, and when not, to administer a defibrillating shock, and what intensity of shock to give. AEDs automate this process almost entirely.

AEDs are safe, effective, lightweight, low-maintenance, easy to use and relatively inexpensive. The first out-of-hospital defibrillation devices weighed 110 lbs.; today they weigh less than 10 lbs. Prices vary, but \$2,500-\$3,500 per unit is typical, depending on the quantity purchased. A training unit (c. \$250) will also need to be purchased if you plan to do in-house user training. Some suppliers will include a free training unit, and sometimes even free or reimbursed training

¹ American Heart Association pamphlet, "The Case for Public Access Defibrillation (PAD) Programs," in *Public Access Defibrillation Programs: Our Plan for Saving Lives* packet, 1999.

² A detailed description of how defibrillation works can be found at this American Heart Association web site: <http://www.americanheart.org/Scientific/statements/1997/039701.html>.

³ R. O. Cummins, "From concept to standard of care? Review of the clinical experience with automated external defibrillators." *Ann. Emerg. Med.* 1989;18(12): 1269-1275, as cited by Aaron Rubin, M. D. "Automated External Defibrillators: Selection and Use." In *The Physician and Sportsmedicine*, Vol. 28, No. 3 (March 2000), p. 114 (http://www.physsportsmed.com/issues/2000/03_00/rubin.htm).

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AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

fees for some users, with the purchase of AEDs. Grants are also available for eligible agencies from, among other grantors, Prudential Insurance and from MedTronics Foundation. Both have websites with details of the grant programs.⁴ Some state EMS agencies also offer grants for acquisition of AED equipment to eligible providers.

Airplanes, airports, casinos, cruise ships, amusement parks, large offices, factories, and government centers are some of the organizations that have implemented PAD programs. While liability concerns were raised in the early and mid 1990s, questioning the risks of improper use of AEDs, the landscape has since rapidly altered due to improved public education and implementation of nationwide Good Samaritan statutes. It is now widely accepted that AEDs are safe, easy to operate and one of few devices capable of reversing a sudden cardiac arrest. These devices have even been operated successfully by untrained children and adults⁵ who have saved the lives of loved ones. As more industries and organizations equip their sites with AEDs, the justice system is beginning to hold the others to a higher standard of emergency medical preparation, which includes AED access. It is possible that soon the greater liability risk will be not having an AED on your premises for use in a life-threatening emergency. A victim of SCA is *essentially dead* unless early CPR and defibrillation arrives very quickly. Liability concerns may now be shifting to the lack of sufficient emergency help available to save a life, rather than the potential risk of lawsuits for improper operation by laypersons.⁶

Increased survival with AEDs: some statistics from the American Heart Association

- Even in cities where CPR training is widespread and EMS response is rapid, the survival rate increased from 7 to 26 percent when AEDs were issued to first responders.
- In cities where defibrillation is normally provided within 5 to 7 minutes, the survival rate from cardiac arrest is as high as 49 percent. On the other hand, in cities in which EMS response times are prolonged because of traffic congestion and high-rise buildings (and in which bystander CPR is infrequent), longer-term survival outcome is 1-2 percent.
- A Rochester, Minnesota, study showed remarkable survival rates when police vehicles were equipped with automated external defibrillators. Twenty-one of 44 persons with out-of-hospital cardiac arrest were long-time survivors. Of these 44 victims, 14 had initial defibrillation by the police force. Of these 14, 10 survived and were discharged. The overall survival rate of 21 of 44 victims can be compared with the survival rate in New York (with no police AEDs), where 26 of 2,329 victims survived.
- AEDs were mounted “1 minute apart” in plain view at Chicago’s O’Hare and Midway Airports in June 1999. In the first 10 months, 14 cardiac arrests occurred, with 12 of the 14 victims in ventricular fibrillation. Nine of the 14 victims (64 percent) were revived with an AED and had no brain damage.

⁴ Prudential: <http://www.prudential.com/community/hearts/cmhz1000.html> for purchase of AEDs; MedTronic: <http://www.medtronic.com/foundation/heartrescue.html>, apparently for training only.

⁵ In fact, AEDs are so easy to use that one study showed untrained sixth-graders were almost as fast as trained paramedics in the proper use of AEDs in a mock cardiac arrest scenario. The untrained children simply followed the directions and listened to the AED’s voice-recorded prompts. They took between 69 to 111 seconds to use the AED properly. The EMT professionals, with prior training in the proper use of AEDS, took 50 to 87 seconds. See <http://circ.ahajournals.org/cgi/content/abstract/100/16/1703> for details.

⁶ “David L. Herbert, J.D., a specialist in the legal aspects of sports medicine and a senior partner at Herbert & Benson in Canton, Ohio, . . . notes that some lawsuits have been brought against sites (i.e., a health spa, an amusement park, and a health club) for failure to have an AED.” Lisa Schnirring, “AEDs Gain Foothold in Sports Medicine,” in *The Physician and Sportsmedicine*, Vol. 29, No. 4 (Apr 2001), p. 19 (http://www.physsportsmed.com/issues/2001/04_01/news.htm).

URMIA WHITE PAPER:

AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

The nation's EMS systems, in conjunction with the American Heart Association and American Red Cross, have a goal of assisting businesses and other facilities in establishing PAD programs and assisting AED providers in understanding applicable federal and state laws and codes.

How Do AEDs Work, Exactly?

AEDs are meant to sit passively in readiness until needed, much like a fire extinguisher. AEDs can be carried in a vehicle, like a small backpack, or can be hung in an unlocked wall cabinet (c. \$200-\$250) in a building. Wall cabinets should be linked to your Public Safety or campus police alarm system, so that whenever the door is opened, allowing AED access, officers will respond. Cabinet doors can also be equipped with local audible alarms to help prevent theft.

While individual models vary somewhat, almost all AEDs are battery-powered and are designed to deliver stored electrical energy to shock a victim's heart back into normal rhythm. Because different victims may have different heart rhythms, the AED checks the victim's heart rhythm against complicated algorithms to determine whether the victim needs a shock or not. If not, *the AED will NOT administer a shock, and cannot be overridden by users to do so accidentally.* Most AEDs will shock repeatedly as necessary, checking and re-checking for proper heart rhythms and even increasing voltage as necessary for subsequent shocks.

When a trained rescuer becomes aware of a person suffering cardiac arrest in your facility, and you have an AED nearby, the rescuer would call for emergency services, then apply the AED. A typical AED has two electrodes, built into pads meant to be applied to bare skin. The rescuer would remove the victim's upper clothing to expose the skin, and would follow the pictures on the electrode pads to indicate where to place the pads.⁷ The rescuer would then remove the protective paper on the back of the electrode pads, exposing the sticky side of the pads, and would stick the pads to the victim's bare skin in the locations indicated on the pads (one pad on one side of the victim's body, one on the other). Then the rescuer would press the button on the AED that activates its checklist routine. Since the AEDs are prompt-driven, the operator simply needs to listen to directions as given audibly by the AED. No interpretation of cardiac rhythm readouts is required, although the user must still activate the sequence that provides the shock.

The AED would then check for a pulse, and would audibly announce whether a shock was needed. If so, the AED would warn all bystanders to stay clear of the victim, and the rescuer would press the "Shock" button on the device. (Some "fully automated" AEDs administer the shock without the rescuer; "shock advisory" types of AEDs require the button to be pushed. Both devices are equally safe.) A shock would be delivered, and the checklist sequence repeated until either a normal pulse was detected or EMS services arrive and take over.

For a more complete list of commonly asked AED questions, including more specific details about how AEDs work, whether they make mistakes (answer: yes, but extraordinarily rare—less often than professionally trained emergency rescuers), recommendations on starting a PAD program, and many other questions, see the American Heart Association's extremely helpful and informative AED FAQ web site at http://www.cpr-ecc.org/cpr_aed/cpr_aed_menu.htm.

What Laws Apply to AED Devices and PAD Programs?

Although they are extremely helpful devices, you can't just stock your campus with AEDs as if they were first aid kits or fire extinguishers. Several federal, state and local laws apply to PAD

⁷ NOTE: in an aquatic environment, such as poolside rescue by lifeguards, precautions need to be taken, such as drying off the victim and the rescuer before AEDs are used. See the related article on poolside AEDs by Paul Fawcett, Coordinator of Aquatics in the School of Physical Education at Ball State University, in *From the Gym to the Jury*, August 2000 (<http://www.gym2jury.com/index.htm>).

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AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

programs. On November 16, 2000, President Clinton signed into law the Cardiac Arrest Survival Act (HR 2498). The law encourages the placement of AEDs in federal buildings and provides nationwide Good Samaritan protection that exempts from liability anyone who renders emergency treatment with a defibrillator to save someone's life. Also signed into law was the Rural Access to Emergency Devices Act (SF 2528), which authorizes \$25 million in federal funds to help rural communities purchase AEDs and train lay rescuers.

In addition to this law, all 50 states have passed Good Samaritan laws that grant state-level immunity to anyone who attempts CPR in an honest, “good faith” effort to save a life. Under most Good Samaritan laws, laypeople are protected if they perform CPR, even if they have had no formal training in it, as long as they are voluntarily and genuinely trying to help and are not engaging in gross misconduct (like doing “chest compressions” on someone’s neck). Many of these laws are being amended to incorporate AEDs as well (49 states at last count). To find applicable laws for your state, go to the web site of the Public Access Defibrillation League and search by state: <http://www.padl.org/uslaws.php3>

In Illinois, for example, the following laws apply to AED ownership and usage:

- Cardiac Arrest Survival Act of 2000 (Public Law 106-505, Title IV—federal law)
- The AED Act (Illinois SB0458, effective Jan. 1, 2000—state law)
- AED Amendment to Good Samaritan Act (Illinois HB1773—state law)
- Automated External Defibrillator Code (77 Ill. Adm. Code 525—state Department of Public Health code)

The Federal Drug Administration (FDA) requires medical oversight by a physician of any PAD program. The physician should be one who is familiar with sudden cardiac arrest and the operation of AEDs. The physician may be onsite or offsite. To assure that PAD programs have appropriate medical oversight and is compatible with the local EMS system, all PAD providers shall be:

1. A person or establishment that is responsible for assuring AED users are trained in accordance with an approved AED training program. Reasonable steps to comply with this responsibility include:
 - a. Verifying that personnel who will have access and authorization to use the AED are trained in accordance with the training and education directives, usually of the American Heart Association or the American Red Cross. Check with your applicable state law or local health codes to see what requirements apply to your area. PAD providers should maintain copies of each AED user’s current certification.
 - b. Placing the AED in a location that is easily accessible to those who are trained to use the device. The location should be out-of-reach of small children. The AED should be labeled to indicate only trained AED users are to operate the device.
 - c. Encouraging personnel who are routinely in the area of the AED to complete an approved AED training course.
2. A person or establishment that provides PAD must register with the local EMS system. To comply with this requirement in the EMS system, the PAD provider shall:
 - a. Notify the EMS system *prior* to placing the AED(s) in service.
 - b. Complete and forward a PAD registration form to the appropriate local EMS system AED Medical Director. You would need to find out who that person is for your area. Your Public Safety or Campus Police Departments should be able to help you find that person.

URMIA WHITE PAPER:

AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

To reiterate: most laws governing AED programs require the following (check with your legal counsel to determine what laws apply in your area):

- 1) *registration with the local EMS provider*, usually a hospital or fire department in your area. This may include filling out their registration forms, sending in annual updates and lists of trained personnel, and a report any time an AED is actually used in a crisis. **IMPORTANT NOTE:** Sometimes the local EMS provider will insist that you purchase AEDs of the same make and model as those used by their system. **You should be aware of their requirements before you go shopping for AEDs.**
- 2) *medical supervision*—a physician who signs off on the purchase, maintenance and usage of the devices. As AEDs are regulated medical devices, you should not be able to purchase them without a physician’s signature. If your school does not have an attending physician, contact your local EMS for suggestions.
- 3) *regular maintenance and testing*, per the manufacturer’s specifications. Most AEDs self test daily and will emit an audible signal when the batteries are low. Most need to be tested regularly also (once a month or once a week is common). Often this is a simple push of a button, but sometimes batteries need replacement or other maintenance is required. You will need to assign someone, perhaps the department in custody, to do and keep good records of regular maintenance. **NOTE:** General upkeep and maintenance to comply with legal requirements can be a significant cost of owning AEDs. Factors to consider before you start a PAD program include the time and expense of proper maintenance, as well as the liability potential of having an improperly maintained AED on your premises.
- 4) *training for potential users*—this is to include CPR training and must be updated at least every two years, often annually. Usually the curriculum for training should be based on that from the American Heart Association. The Red Cross and the National Safety Council, among other agencies, have acceptable training programs as well. You will need to document your training and keep a list of all those positions that should receive it.

Beginning a PAD Program On Your Campus

Establishing a PAD program is a logistical process that, if followed, will result in a well-organized and effective emergency response plan for sudden cardiac arrest victims. See Appendix A for a checklist you can work through.

One of the best guidebooks for such a program is *Project Adam: Public Access Defibrillation in Schools*, published in 2000 by the Children’s Hospital in Wisconsin. Originally designed for administrators interested in placing AEDs in high schools, this workbook will walk you through all the steps in establishing a PAD program. The cost for the workbook (and accompanying CD-ROM with PowerPoint presentation) is \$30. To order, contact:

Karen Bauer, Community Training Center Coordinator
Children's Hospital of Wisconsin
9000 West Wisconsin Avenue/MS677
Milwaukee, WI 53226
(414) 266-2289

URMIA WHITE PAPER:

AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

The American Heart Association also issues a packet of helpful information, statistics and guidelines for AEDs and PAD programs. It is called Public Access Defibrillation: Our Plan for Saving Lives, and is available through the American Heart Association. See below for contact information.

Should I form an AED committee?

Establishing a work group comprised of key individuals is important to initiate a PAD program. All those who might use the devices, those who will need training, and especially those who may have fiscal responsibilities for purchase, maintenance and replacement of the devices will want to be involved in the initial decisions. You may wish to include representatives from:

- Public Safety/Campus Police
- Risk Management
- Athletics/Kinesiology (particularly athletic trainers, coaches or facility supervisors)
- Health Center personnel
- Human Resources
- Physical Plant

Do I need to write an AED program for my campus?

Your working group will probably want a written set of guidelines for why and how you will use AEDs. Include in the program the name and contact information of the overseeing medical director, as well as the contact information for your area EMS provider, with whom you will need to register your program. Also include a list of device types and locations, and the names of those who will perform required maintenance and testing of the devices. Finally, include the names of the AED committee members who have oversight of the program, and remember to review your program annually, making revisions if necessary.

How many AEDs should we purchase, and where should we put them?

The American Heart Association says that “an efficient PAD program would optimally be able to achieve a 3-minute response time from collapse of patient to arrival on scene of the AED with a trained rescuer.”⁸ Make sure that the vertical travel time is considered also for buildings with multiple floors. The most important considerations for placement are 1) the time to response; 2) the number of potential victims who would be served (volume and risk of visitors, employees, students, etc.); 3) historical incidence rates of cardiac arrest; and 4) areas of high-risk activities (e.g., a health/exercise facility serving an aging population). Consider AEDs for any locations where a reasonable probability exists of sudden cardiac arrest occurring. Have local EMS or other healthcare professionals do a facility walkthrough, in order to more firmly establish a 3-4 minute response time to any site. Places where you may consider installing AEDs:

- Athletic fieldhouses
- Stadiums
- Student health centers or clinics
- Recreation centers
- Cafeterias
- First Aid stations
- Fitness/exercise rooms
- Main reception areas

⁸ “The use of on-site AEDs to treat cardiac arrest is rising because traditional emergency medical service (EMS) is unavoidably too slow. The single most important determinant of survival is the time from collapse to defibrillation. Each minute of delay decreases the chances of survival by 7% to 10%. Most patients will survive if defibrillation is achieved in less than 3 minutes; few will if the delay is 16 minutes or longer, despite CPR administration” (John D. Cantwell, M.D., “Automatic External Defibrillators in the Sports Arena: The Right Place, the Right Time,” in *The Physician and Sportsmedicine*, Vol. 26, No. 12 [Dec 1998], p. 1, and on the web at <http://www.physsportsmed.com/issues/1998/12dec/cantwell.htm>).

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Other factors to consider:

- Mounting the AED in a secure location
- Mounting the AED in an accessible location
- Proximity of the nearest telephone for calling EMS (911, etc.—outside line needed?)
- Temperature extremes to which the AED will be exposed: will the battery still work if it has been sitting in the trunk of a Public Safety vehicle for three weeks in January? You may need to make sure AEDs stay warm enough (or cool enough) to work properly. Someone will have to look after them carefully under these conditions.

Which AEDs should we buy? Is there one AED type that is better than another?

Several companies manufacture AEDs, all with slightly different features and technology. No single company's AED has become a standard, although independent testing agencies have extensively compared the devices. Most have a 2-5 year shelf life, after which batteries need to be replaced. This is not an inconsiderable expense (up to \$200 per device), so battery replacement should be factored into the cost of administering an AED program. Most AEDs will administer dozens, if not hundreds, of shocks before the batteries run out, and some have rechargeable batteries. Examine the vendor warrantee, support services and history in the medical device arena. Your decision will also be influenced by the types of AEDs used by your local EMS providers. They may wish you to have identical devices, with which they are familiar and on which they have been trained. If they respond to a victim, they will then be able to make a smoother transition to their own treatment technology.

Who should we train, and how will they get training?

Early in the process you should determine how your AED potential users will receive initial and refresher (usually annual) retraining. Some organizations find it is most cost-efficient to have one or more of their own employees become certified as a trainer. Then the trainer(s) can hold classes on a regular basis for others on campus. On the other hand, your local Red Cross or American Heart Association chapters hold training sessions regularly, and you could send several potential users to a class at once. (However, these classes can cost between \$30 and \$80 per person.) Some groups that should receive training might include:

- Campus Police/Public Safety officers
- Hospital, Clinic, or Student Health Center personnel
- Coaches and athletic trainers
- Therapists
- Physical Plant employees
- Athletic facility monitors, receptionists, etc.
- Lifeguards and pool monitors
- Anyone who will regularly be near a large or high-risk group of people

What if someone doesn't want to be defibrillated?

The Patient Self-Determination Act of 1991 supports the right of a patient to make decisions about his or her medical care, including care at the end of life. Living wills and advance directives can be in place to indicate the patient's desire that no CPR or defibrillation be performed. A number of states have adopted "EMS No-CPR" or "Do Not Attempt Resuscitation" (DNAR) programs, in which a patient signs a "no heroics" document request, allowing them to call 911 for help with medical conditions, while avoiding unwanted resuscitation efforts. Some states allow the patient to wear a "no-CPR" identification bracelet. In an emergency, the bracelet or other documentation signals rescuers that CPR efforts, including AED use, are prohibited.

If your rescuers encounter a person in apparent cardiac arrest (unresponsive, no pulse, not breathing), and the victim is wearing a no-CPR bracelet (or has some other indication of no-CPR status, your rescuers should respect the person's wishes. They should call 911, report the problem

URMIA WHITE PAPER:

AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

and the victim's condition and the presence of the no-CPR bracelet, and await the arrival of emergency personnel. This information should be covered in the training your rescuers receive.

AED Sales and service

Many companies manufacture or sell AEDs. This is a representative vendor list only. Consult with your local EMS for advice on which type to purchase.

<http://www.medtronicphysiocontrol.com/>

http://www.healthcare.agilent.com/cardiology/product_information/heartstream/index.html

<http://www.heartstream.com>

<http://www.laerdal.com>

<http://www.mrlinc.com>

<http://www.zoll.com>

For More Information on AEDs:

Cantwell, John D., M. D., "Automatic External Defibrillators in the Sports Arena: The Right Place, the Right Time." In *The Physician and Sportsmedicine*, Vol. 26, No. 12 (Dec 1998), p. 1 (<http://www.physsportsmed.com/issues/1998/12dec/cantwell.htm>).

Gundry, John W., M. D. et al. "Comparison of Naïve Sixth-Grade Children With Trained Professionals in the Use of an Automated External Defibrillator." *Clinical Investigation and Reports, Circulation* (1999) 100:1703-1707 (<http://circ.ahajournals.org/cgi/content/abstract/100/16/1703>).

Rubin, Aaron, M. D. "Automated External Defibrillators: Selection and Use." In *The Physician and Sportsmedicine*, Vol. 28, No. 3 (March 2000), pp. 112-114 (http://www.physsportsmed.com/issues/2000/03_00/rubin.htm).

Schnirring, Lisa. "AEDs Gain Foothold in Sports Medicine." In *The Physician and Sportsmedicine*, Vol. 29, No. 4 (Apr 2001), pp. 11-19 (http://www.physsportsmed.com/issues/2001/04_01/news.htm).

Cardiac Arrest Survival Act and Rural Access to Emergency Devices Act of 2000
<http://www.redcross.org/oh/lorain/president%5Fclinton%5Fsigns%5Faed%5Flegi.htm>

AED Models promoted by American Red Cross
<http://agcc-redcross.safeshopper.com/1/cat1.htm?168>

Article on Chicago O'Hare Airport's use of PAD—one of first to implement a PAD program
<http://www.saramedsales.com/html/medical.htm>

FDA Guidelines for Public Access AEDs
http://www.fda.gov/cdrh/consumer/AED_PAD.html

Position Paper from the American College of Emergency Physicians (ACEP)
<http://www.acep.org/library/index.cfm/id/659.htm>

Public Access Defibrillation Program guide from American Heart Association
<http://www.americanheart.org/Scientific/statements/1995/21952222.html>

AED Public Access Statement from AHA
<http://www.americanheart.org/Scientific/statements/1997/039701.html>

URMIA WHITE PAPER: AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

AED use guidelines for Oregon state agencies, as sample of state requirements

<http://risk.das.state.or.us/aedefib.htm>

Defibrillators in emergency vehicles statement from the American Heart Association

http://www.americanheart.org/Heart_and_Stroke_A_Z_Guide/defib.html

Other articles or organizations of interest:

http://www.cpr-ecc.org/cpr_aed/cpr_aed_menu.htm

<http://my.webmd.com/content/article/3315.111>

<http://my.webmd.com/content/article/3315.117>

<http://www.padl.org>

Defibrillator Training (always to be accompanied by CPR training)

The following agencies offer CPR/AED training. Contact the headquarters to learn what local offices and training resources might be appropriate for you.

American Red Cross

8111 Gatehouse Road

Falls Church, VA 22042

703-206-7180

<http://www.redcross.org/services/hss/resources/fapro2.doc>

American Heart Association

7272 Greenville Avenue

Dallas, TX 75231-4596

877-AHA-4CPR (877-242-4277)

<http://www.cpr-ecc.org/laycourses.html>

EMP America

500 S. Danebo Avenue

Eugene, OR 97402

800-800-7099 or 541-344-7099

<http://www.medicfirstaid.com/training.asp>

National Safety Council

1121 Spring Lake Drive

Itasca, IL 60143-3201

800-621-6244

<http://www.nsc.org/psg/fai/faichart.htm>

<http://www.lifesaving-solutions.com/>

http://www.defib.org/navigation_page.htm

Comments from Risk Managers pro and con AEDs:

<http://www.riskvue.com/rbqom.htm>

URMIA WHITE PAPER: AUTOMATED EXTERNAL DEFIBRILLATORS AND PAD PROGRAMS

Appendix A: Sequence to follow to develop a PAD program

The following outline is adapted from the *Project ADAM* manual. To order, contact:

Karen Bauer, Community Training Center Coordinator
Children's Hospital of Wisconsin
9000 West Wisconsin Avenue/MS677
Milwaukee, WI 53226
(414) 266-2289

A. Planning

1. Develop a workgroup to determine desirability and feasibility.
2. Determine estimated program cost. Include purchase, training, and maintenance costs.
3. Determine legal considerations. Check applicable state laws.
4. Enlist support from appropriate administrators and potential rescuers.
5. Arrange financing—who will be footing the bill for the program?

B. Implementation

1. Identify a program coordinator (maybe yourself).
2. Determine the final program budget and secure funding.
3. Notify the local EMS of your plans.
4. Obtain the services of a physician willing to be your program's medical director.
5. Develop your AED policies and procedures, to include:
 - a. a workable system for device maintenance
 - b. appropriate follow-up for drills and actual incidents, to include medical director review and critical incident debriefing
 - c. a system for tracking individuals trained, to identify those who require retraining or skill practice
6. Assess your facility for number and placement of AEDs.
7. Select an AED manufacturer and device.
 - a. Consult with your medical director and local EMS.
 - b. Is the device FDA-approved for PAD programs?
8. Select a training provider.
9. Identify key individuals to be trained.
10. Purchase devices, implement training, and keep records of maintenance, training, and use (if any).

WHEATON AUTOMATED EXTERNAL DEFIBRILLATOR PROGRAM (SAMPLE)

I. Policy

A. Automated External Defibrillators (AEDs) shall be maintained on the premises of Wheaton College. The ownership and maintenance of these devices shall be in compliance with the following relevant legislation:

- **Cardiac Arrest Survival Act of 2000 (Public Law 106-505, Title IV)**
- **The AED Act (Illinois SB0458, effective Jan. 1, 2000)**
- **AED Amendment to Good Samaritan Act (Illinois HB1773)**
- **Automated External Defibrillator Code (77 Ill. Adm. Code 525)**

B. The AED(s) shall be used 1) in emergency situations warranting use 2) by individuals specifically trained in use of the device.

II. Procedure

A. Location, maintenance and testing of AEDs

1. AEDs shall be kept as follows:

Defibrillator type	Specific location	Individual responsible for testing and maintenance of this AED
LifePak 500 (Medtronic/Physio-Control)	Public Safety emergency response vehicle #1	Lieutenant Terry Blunt, Prevention Coordinator
LifePak 500 (Medtronic/Physio-Control)	Public Safety emergency response vehicle #2	Lieutenant Terry Blunt, Prevention Coordinator
LifePak 500 (Medtronic/Physio-Control)	Reception desk of Eckert Student Recreation Center	Glenn Town, SRC Director
LifePak 500 (Medtronic/Physio-Control)	Chase Service Center wall	Steve Dowell, Physical Plant Office Manager
LifePak 500 (Medtronic/Physio-Control)	Head Athletic Trainer's medical treatment kit	Greg Evans, Head Athletic Trainer
LifePak 500 (Medtronic/Physio-Control)	Honey Rock Camp main office	Rob Coddling, Operations Director

2. The AED program Medical Director will be:

Dr. Hannah Choi
C/o Wheaton College Student Health Center
501 College Avenue
Wheaton, IL 60187
630-752-5072

3. The type of devices, intended use areas, plan for maintenance and testing, location of the device(s) on the premises, and list of trained potential users (including copies of their certification cards) shall be confirmed annually in writing by the AED program Medical Director to the local Emergency Medical Service provider:

Grace Loving
Manager of EMS and Trauma Services
Central DuPage Hospital
25 N Winfield Road
Winfield, IL 60190
630-933-6910

4. Maintenance and testing of AEDs shall be conducted according to the manufacturer's specifications.

- a. The individual departments having AEDs will be responsible for proper testing and maintenance. The Medical Director will designate personnel to keep records and remind the departments to submit records of testing annually.
- b. Documentation shall record the date and type of maintenance/testing, and the signature of the person performing the maintenance/testing.
- c. Documentation of maintenance and testing will be maintained by the Medical Director, or his or her designate, for a period of ten (10) years.

WHEATON AUTOMATED EXTERNAL DEFIBRILLATOR PROGRAM (SAMPLE)

B. Training in Use of the AEDs

1. Only those who have been trained in the use of AEDs are permitted to use them in emergency situations.
2. Training shall be conducted by certified trainers, according to Red Cross or American Heart Association guidelines. It shall include CPR training and a required reading of this program in its entirety.
3. Training records will be kept by the Student Health Center, which will send out annual reminders to those who need to be re-trained. When training is successfully completed, copies of certification cards are to be sent by the trainees to the Medical Director, who will keep copies and send copies on to the local EMS provider.

C. Using an AED

1. Determine unresponsiveness of victim and activate Emergency Response Plan, per Red Cross or American Heart Association training.
2. If a victim is unresponsive, call “9-1-1” (“5-9-1-1” from internal campus phones) for Emergency Medical Services (EMS) and obtain the AED from its location.
3. If possible, designate an individual to wait at the facility entrance to direct the EMS to victim’s location.
4. Place the AED near head of victim, close to AED operator.
5. Prepare and use the AED. *Refer to American Red Cross or American Heart Association training guidelines.*
6. Upon arrival, EMS shall take charge of the victim.
7. Provide victim information: name, age, known medical problems, time of incident.
8. Provide information on victim’s current condition and the number of AED shocks administered.

D. After Use of AED

1. The program Medical Director shall be notified of any AED use.
 - a. A complete incident report following AED use shall be delivered to the Wheaton College AED program Medical Director, who will forward it to the local EMS provider.
 - b. Critical Incident Debriefing session to evaluate the incident will be held within seven (7) days for all initial responders and trained AED users. This session will be called by the Medical Director.
 - c. If necessary, the Medical Director shall recommend changes in rescue practice.
2. The AED will be checked and put back in a state of readiness per American Heart Association guidelines and the manufacturer’s recommendations.

E. AED Inventory

1. Readiness status will be assured by monthly checks, conducted by the department in custody.
2. Readiness status will be assured following any AED use.

III. Oversight and Program Review

Representatives from the following groups will constitute the Wheaton College AED Committee. The AED committee will have oversight of this AED program and will review it annually, making revisions as necessary:

- **Student Health Center**
- **Risk Management**
- **Public Safety**

Sample Public Access Defibrillation (PAD) Registration Form

USE THIS FORM TO REGISTER YOUR AED WITH THE LOCAL EMS SYSTEM.

Name of Company, Organization or Establishment: _____

Contact Person: _____ Contact Phone: _____

Company, Organization or Establishment Address

Street	City	State	Zip
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What is the primary function of your company, organization or establishment?

In what type of area will the AED(s) be available (i.e., office, industrial, public assembly)?

What type(s) of defibrillator(s) will you be using and where?

Defibrillator type	Specific Location	Individual responsible for maintenance and training for this AED

Indicate how you plan to ensure the monitor is operated by trained AED users and how this training will be obtained.

Are your AED users current in CPR training? Yes No

If not, explain: _____

Describe how your local EMS provider (i.e., rescue squad, ambulance) is contacted.

Do you have a maintenance service and testing agreement for your monitor? Yes No
If no, please describe provisions for unit maintenance and testing.

Sample Public Access Defibrillation (PAD) Registration Form

This provider agrees to:

1. Take reasonable measures to assure the AED is used by trained AED users.
2. Documentation indicating that all personnel authorized to use the AED must be on file or available to the EMS system and the Illinois Department of Public Health (IDPH).
3. Maintain service and test the AED according to manufacturer's guidelines.
4. Establish an in-house quality assurance plan and "post event" procedures, including steps to notify the EMS system of any incident which results in the AED being taken to a person.
5. Submit documentation (PAD Utilization Form and AED recordings) to the EMS system of any event, incident or situation that results in the use or possible use of the AED.

Signature: _____

Date: _____

Title: _____

If you have any questions concerning this program or application, please contact your local EMS provider's AED Programs Medical Director, as follows:

<<Insert Local EMS System name>>
<<Insert Medical Director's name>>
<<Insert Title>>
<<Insert Address>>

Office Phone: <<Insert>>
Fax Number: <<Insert>>
E-Mail: <<Insert>>

EMS SYSTEM APPROVAL (to be signed and returned to the organization upon approval by the area EMS Medical Director of AED programs)

I have reviewed this request and verify that this organization meets the equipment and staffing requirements of the EMS system regulations and for the purpose of public access to an AED. I recommend the approval of this application and authorize purchase of AED equipment.

EMS Medical Director's Signature

Date

Sample Public Access Defibrillation Utilization Form

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

PAD provider name and organization: _____

Location of victim: _____

Date of incident: _____ Time of incident: _____

Name of and contact information for victim, if known: _____

Name of and contact information for person(s) who found the victim: _____

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

Name of 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 Medical Director
Student Health Center**

Available on the web at <http://www.urmia.org>

Click on Libraries and then Unrestricted Documents

University Risk Management & Insurance Association
The source of information for risk management in education.