Harris County Automated External Defibrillator (AED) Program

9/05

HARRIS COUNTY
AUTOMATED EXTERNAL DEFIBRILLATOR (AED) PROGRAM

Purpose

Sudden Cardiac Arrest is a relatively rare, unpredictable but potentially fatal event. The purpose of the Harris County Automated External Defibrillator (AED) Program is to enhance the safety of employees and visitors in County owned properties by providing equipment and training to save the lives of persons experiencing heart attack, cardiac arrest, and stroke. The purpose of this document is to provide an easy-to-follow procedure for Department implementation, monitoring, and maintaining their AED program.

Objectives

- To provide a procedure to select AED installation sites.
- To provide a procedure to facilitate purchase of AEDs and accessories.
- To provide a procedure to facilitate installation of AEDs and accessories.
- To provide a directive to acquire appropriate CPR/AED training.
- To provide guidelines on equipment maintenance.

Definitions

Automated External Defibrillator (AED) – An automated heart monitor and defibrillator that meets federal and state standards and is approved by Harris County Health Public Health and Environmental Services (HCPHES).

AED Program Coordinator- An individual who is selected by Human Resources & Risk Management (HR & RM) to coordinate the AED Program with County Departments, HCPHES, Facilities and Property Management (FPM) and Purchasing.

Call-to-Shock Response Interval – The estimated time to initiate and complete a call to 9-1-1 emergency services, plus time to dispatch a fire engine or ambulance and for it to travel from the nearest fire or EMS station to the building location, plus time for the rescue crew to travel from their vehicle to the patient, plus time to deliver a shock using fire department or EMS equipment.

Department AED Coordinator – Individual(s) selected by the Department Director, who will be responsible for coordinating the Department's AED program. When available, Department Directors should utilize staff who participate with emergency service agencies.

Medical Director – A physician who is appointed by HCPHES and is responsible for medically directing the Harris County AED program. The Medical Director or designee has responsibility for any clinical matter pertaining to the AED program for the County.

Emergency Medical Service (EMS) - Professional community responder agency that provides medical assistance and/or ambulance transport and responds to emergency events.

EMS Response Barriers – Traveling distance from the nearest fire/EMS station greater than 3 minutes, suite numbers, 3rd floor or higher locations, response units that are not readily available, and other impediments to quick EMS response.

High population density location – Any facility that routinely has occupancy of greater than 250 adults at any given moment during a regular workday.

Rescue Breathing - Artificial ventilation of a victim in respiratory and/or sudden cardiac arrest.

Sudden Cardiac Arrest (SCA) - A significant life-threatening event when a person's heart stops or fails to produce a pulse.

Visual Check of AED – A visual check feature indicating the results of the AED device's most-recent self check.

Procedure

A. Selecting potential buildings/sites for AED placement.

1. Each County Building and Department will be evaluated by Human Resources & Risk Management (HR & RM), Facilities & Property Management (FPM) with the assistance of the Department Director for potential AED placement.

2. Consider AED placement in buildings and other locations with high population densities or placement at any site where the anticipated EMS call-to-shock response interval exceeds 5 minutes. Those guidelines include:

    - One AED for approximately 20,000 square feet of floor area.
    - About one AED every two floors of a multi-story building.
    - A high public traffic volume.

3. Depending on the unique characteristics of any site, one or more AEDs should be considered for placement. AEDs should be located so that the walk to retrieve an AED takes no more than 1.5 minutes.

4. AED installations should be highly visible and easily accessible to employees and passers-by alike. AED installations should also be in relatively well monitored areas to reduce likelihood of theft.

.B. *Purchase of AEDs*

1. AED hardware will be purchased by Harris County through the Purchasing Department on the agreed upon number of AEDs and accessories.

2. Each AED purchase will be accompanied by purchase of an appropriate wall case and a mouth-to-mouth resuscitation barrier device.

3. Purchasing will notify AED Program Coordinator prior to placing an AED order for any Department to ensure the AED program is followed.

C. Installation

1. Members of Facilities and Property Management (FPM) will coordinate installment of AED devices and associated signage. FPM must approve of all installations.

2. Each installation will have an accompanying notice in brightly colored letters that contrast with background, no less than 1" in height, stating:
    a) "Emergency Medical Equipment – to be used by trained persons." The name of the Department AED Coordinator for each AED and contact information must be printed on each notice.
    b) "In case of emergency, direct a person to call 9-1-1. The person should be prepared to give the exact location of the emergency and to accurately describe the nature of the medical emergency."
    c) "Another person should be sent to meet the firefighters/EMS and bring them directly to the medical emergency."

3. AED devices shall be installed and maintained in accordance with Harris County policies and manufacture's guidelines.

4. Each AED will be equipped with two sets of defibrillator pads and two barrier devices. The AED Program Coordinator is responsible for contacting vendor for re-stocking equipment after any use of an AED.

5. Removal/de-installation of an AED must be justified in writing to the Department Head, HR&RM and FPM.

6. Installation of an AED must be followed by notification to the local EMS service provider by the AED Program Coordinator.

D. Training

1. Initial AED training will be scheduled by the AED Program Coordinator through HR & RM with the assistance of the participating County Departments.

2. AED Program Coordinator will coordinate with Department AED Coordinators to ensure that 3-6 persons are appropriately trained in CPR and use of an AED that will be assigned to the general work area selected for an AED.

3. Department AED Coordinators are responsible for ensuring refresher training of Department employees on CPR and use of an AED.

4. Department AED Coordinators will verify that each AED user has been trained in accordance with the American Heart Association (AHA) guidelines.

5. Departments may contract for additional CPR/AED training with a recognized training agency such as the AHA, American Red Cross (ARC), or the National Safety Council (NSC).

6. Department AED Coordinators will keep track of the names, assigned work locations, CPR/AED training dates, verifying organizations (AHA, ARC, NSC), and the two-year anniversary of the training, and will keep a photocopy of each employee's training verification card. **(*See* Appendix 1)**

7. Each Department AED Coordinator will schedule CPR and AED skills review and recertification for employees at least bi-annually. Attendance at refresher training will be recorded by the Coordinator.

8. Department AED Coordinators will provide an updated list annually to the AED Program Coordinator with the names of persons trained in CPR/AED.

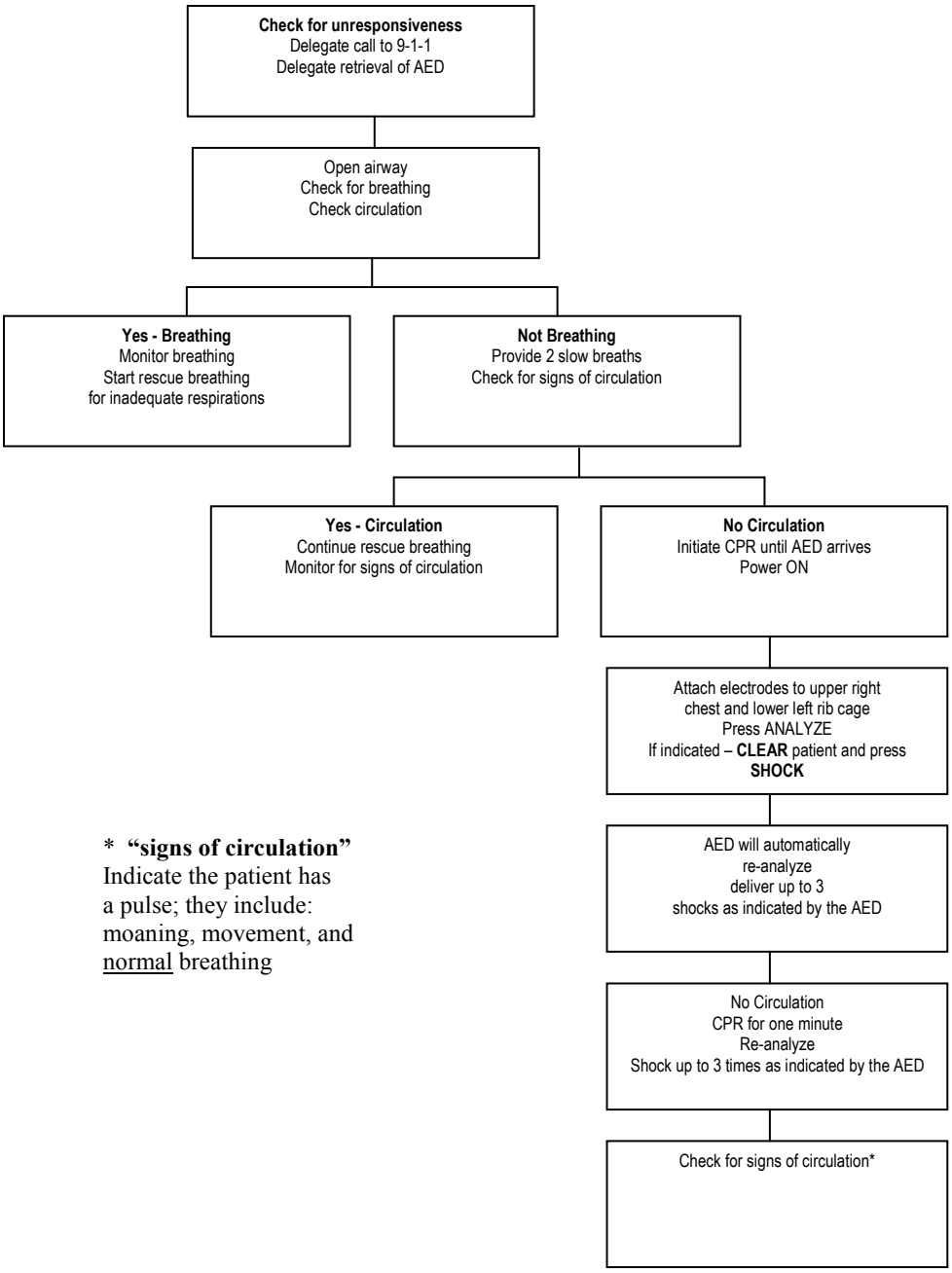
E. Maintenance of AED

1. AED maintenance and inspection will be performed monthly by the manufacturer's trained technician or periodically as determined by Harris County. This monthly evolution will be documented and posted on the on-line record keeping program. The Department AED Coordinator/representative will provide access for the technician to perform this monthly inspection.

2. The Department AED Coordinator should periodically perform a visual check of the AED in their area. **If it appears that the AED device is not fully operational, the Department AED Coordinator will contact the AED Program Coordinator immediately, but no later than the next business day.** The device should not be tampered with or removed from the wall box (unless there is an emergency).

3. The AED vendor will be required to maintain records of any repairs and/or parts replacement for the life of the product in accordance with the County's contract.

AED Treatment Algorithm



* **"signs of circulation"** Indicate the patient has a pulse; they include: moaning, movement, and normal breathing

AED Treatment Algorithm

- Following use of an AED, the user will contact the AED Program Coordinator immediately.
- The AED Program Coordinator will notify the Medical Director, HCPHES, and HRRM as soon as possible.

- A written copy of the medical course of the patient and the **AED Incident Report (*See* Attached report)** must be sent to the AED Program Coordinator, who in turn will forward the completed materials to the Medical Director in a timely fashion.

F. AED Review

1. Following the use of an AED, the AED Program Coordinator will notify the Medical Director, HCPHES, and HRRM within 24 hrs. AED data will be downloaded and forwarded to the Medical Director the as appropriate.

2. Following the use of an AED a debriefing, headed by the AED Coordinator, is to be conducted with all team members who responded to the event, as well as any bystanders and co-workers who witnessed the event, the Medical Director if necessary and professional counselors if deemed appropriate by the AED Coordinator or the Medical Director.

3. A **Post-Incident Review Form (*See* Attached form)** shall be completed at the conclusion of each drill and each real SCA event to evaluate the response model and debrief the AED responder(s). The completed form shall be discussed in the debriefing meeting following the drill or event. Further discussion shall be conducted with the Medical Director as necessary. In either event, written copies of the form shall be distributed to all necessary parties within the Harris County AED Program and relevant department for administrative review.

G. Corrective Action for Deficiencies (equipment problems)

1. Any deficiency identified by the AED Program Coordinator will be promptly brought to the attention of the Medical Director.

2. All deficiencies in the performance of the AED machine itself shall be handled on a case-by-case basis by the AED Program Coordinator and the manufacture's representative. The Medical Director will provide clinical input if necessary.

    a) If the AED device is suspected of malfunctioning, the AED Program Coordinator shall be contacted immediately. The device will be taken out-of-service until it can be inspected and repaired, if needed. The electrode pads will be kept with the device.

    b) The manufacturer's representative will supply a loaner device until the original AED device is returned or replaced.

H. Contacts

HCPHES- Medical Director- (713) 439-6000
HR & RM- AED Program Coordinator- (713) 755-6748
FPM- Safety- (713) 755-5172

ATTACHMENTS

AED Incident Report
AED Post Incident Review

TRAINED CPR/AED PERSONNEL ROSTER

APPENDIX 1

Date of Report

Department _____ _____

Department AED Coordinator _____

Employee Name	Assigned Work Location	CPR/AED Training Date	Verifying Organization	Two-Year Anniversary Date

AED POST-INCIDENT REVIEW

INCIDENT DETAILS:

Date:_____ **Time:_____ am / pm**

Location:_____

Responder(s):_____

AED Operator:_____ 911 Contact: Name_____

AED ID#:_____

AED Operation (Comments):

_____
_____
_____

PATIENT DETAILS:

Name of Patient:_____
Male:___ Female:___ Race:_____

Approximate Age:_____ Survival: yes___ no___

Comments Concerning This Patient (Example- difficulty with clothing/undergarments, placement of electrodes, etc.):

_____
_____
_____
_____
_____

MEDICAL RESPONDERS DETAILS:

EMS Run Report #:_____
Was Transition At Scene Effective? Yes___ No___ (Comments):

_____
_____

ADDITIONAL COMMENTS:

_____
_____
_____
_____

ATTENDEES:	*Name*	*Signature*	*Date*
AED Operator	_____	_____	
Department AED Coordinator	_____	_____	
Department Director	_____	_____	
HR&RM Rep	_____	_____	
Medical Director	_____	_____	

AED INCIDENT REPORT

INCIDENT DETAILS:

Date:_____ Time:_____ am / pm

Location:_____

Responder(s):_____

AED Operator:_____ 911 Contact: Name_____

AED ID#:_____

PATIENT DETAILS:

Patient Name:_____

Male:___ Female:___ Race:_____

Approximate Age:_____ County Employee: yes____ no____

Address:_____

Contact Number:_____

MEDICAL RESPONDERS DETAILS:

Ambulance #:_____ Ambulance Company:_____

EMS Run Report #:_____

EMS Responders Names:_____

Arrival Time:_____ am / pm Departure Time:_____ am / pm

Emergency Care Facility:_____

ADDITIONAL COMMENTS:

_____
_____
_____
_____

FAX To: ***Attn: AED Medical Director*** **(713) 439-6080**
HR&RM **(713) 755-8869**