

<b>Calvin College Automated External Defibrillator Program</b>		<b>Revision 3</b>	
Prepared by: Heather Chapman	Date: 10/20/10	Approved by: Cabinet	Date:

### 1.0 POLICY

This policy is intended to operate as Calvin College’s adoption of those standards endorsed by the medical community as the appropriate use of automated external defibrillators (AEDs). The occurrence of medical emergencies such as cardiac arrest can vary greatly. This policy is not intended to be an exhaustive address of every possible situation in which a cardiac arrest occurs requiring the use of an AED. Situations may occur where it is not possible or feasible to comply with every aspect of this policy and the use of judgment is inherent in the application of this policy. This policy is not intended to operate as an agreement between Calvin College and any individuals requiring the use of an AED.

### 2.0 PURPOSE

Calvin College provides an Automated External Defibrillator (AED) Program on campus to make early defibrillation accessible to students, faculty, staff, and other persons who experience sudden cardiac arrest on campus. The procedures contained herein are established to provide a standardized guideline for the use of automated external defibrillators by authorized, trained individuals at Calvin College.

### 3.0 RESPONSIBILITIES

- **Medical Director:** Dr. Julianne Little, licensed physician with First Medical LLC, shall act as the Medical Authority for the AED Program at Calvin College. Dr. Little provides the following:
  - Oversees the AED program
  - Acts as the required authorization to permit Calvin College to purchase AEDs (a Class III medical device)
  - Provides annual medical supervision of the AED program including medical review of reports of any event in which an AED is used.
- **AED Coordinator:** It is the responsibility of the AED Coordinator to:
  - Communicate with the physician providing oversight, AED responders, administration and EMS regarding the early defibrillation program
  - Assure maintenance of the AEDs and related response equipment
  - Notify staff, students and guests of the location of AEDs
  - Notify First Medical of any event in which an AED has been used and provide the required records/reports for the medical review within 48 hours of the event
  - Maintain a list of trained AED responders
  - Ensure compliance with policies and procedures of the AED program. Report compliance twice annually to the Medical Director

- Maintain full compliance with all state and federal laws, regulations and applicable standards required
- Ensure the care and maintenance of the AED units
- **AED Responders:** It is the responsibility of the AED responders to:
  - Be ready and willing to give immediate care to members of the Calvin community in an emergency
  - Follow Calvin's AED response protocol and guidelines
  - Remain current on certifications

## 4.0 PROCEDURES

### 1. General Guidelines

- a. Calvin College employees who have current Adult Cardiopulmonary Resuscitation (CPR) and automated external defibrillator (AED) training at the Lay Rescuer or Professional Rescuer levels are authorized, but not required, to use an AED and do CPR at Calvin College.
- b. Calvin employees, who are designated first responders to give first aid, and have current Professional Rescuer CPR/AED training (Campus Safety Supervisors, Campus Safety Officers), have the duty to use the training and equipment they have and attempt to rescue victims of sudden cardiac arrest at Calvin College.
- c. Michigan's "Good Samaritan" law states that an individual who had no duty to render emergency service would not be liable for damages in a civil action arising out of the good faith use of an AED to treat another person.
- d. Standard procedures as outlined in the training program and protocol shall be followed while using the AED, unless the employee is relieved by and responsibility for the care of the patient is accepted by a higher competent medical authority, such as a Professional Emergency Unit.

### 2. Protocol for AED Utilization

- a. Each use of an AED by a Calvin College responder shall be accompanied by a call to Campus Safety at 3-3333. Campus Safety will call 911 to ensure timely provision of advanced life support and transport to an emergency medical facility.
- b. When a call for emergency aid is received, the nearest available Calvin College Campus Safety Officer equipped with an AED shall respond to assist other responding personnel. Cardiopulmonary resuscitation (CPR) and automated external defibrillation (AED) shall be provided as appropriate until the local EMS staff arrives to assume responsibility.

- c. See Appendix B: AED Protocol and Flow Chart.

### **3. Maintenance**

- a. The AEDs shall be maintained by Cintas who will conduct monthly inspections on the units and replace pads and/or batteries as necessary. The records will be maintained by Environmental Health & Occupational Safety Department.
- b. Campus Safety will conduct monthly inspections on AED units located within their vehicles.
- c. If an AED exhibits an operational problem or a malfunction, it shall be immediately removed from service. Operational problems or malfunctions shall be reported to EHS as soon as possible after detection, who will contact the manufacturer for service. EHS will notify impacted employees that the unit is temporarily out of service.
- d. When reporting a malfunctioning AED, the employee should be certain to adequately identify the specific unit affected, the type of problem that has occurred, and /or any shortage of accessory equipment.
- e. No Calvin College employee shall attempt any repairs other than the replacement of a battery or accessories.
- f. Repairs and purchase of additional batteries or other accessories shall be arranged through Cintas.
- g. A record of the maintenance and repair of AED units on campus shall be maintained by the Environmental Health & Occupational Safety Department.

### **4. Location and Security**

- a. The AEDs will be located so that they are readily accessible to individuals designated to use them in the workplace.
- b. The AED wall mounted cases will be tied into the building security system so that Campus Safety is notified whenever an AED is removed from its case.
- c. No abuse or vandalism of the AED is to be tolerated. If abuse or vandalism is suspected, it is to be reported to the AED Coordinator immediately so that the AED can be evaluated for proper operation.
- d. Each AED will be tagged as Calvin College property and clearly marked to identify it as belonging in a specific location.

- e. AEDs that are kept in Campus Safety vehicles will be stored in the passenger space inside the cars. When cars are parked for the night, AEDs will be stored inside the Campus Safety office.

## **5. Monitoring of Quality of Care and Outcomes**

- a. Each incident that involves the use of an AED by a Calvin College AED responder should be documented by a Campus Safety Patrol Supervisor or AED responder. See Appendix C: AED Incident Report.
- b. Post incident critiques of each AED use will be reviewed by the Medical Director, Campus Safety Operations Manager and AED Coordinator once records have been obtained.
- c. Records of quality of care assessments and outcome evaluations will be maintained by EHS.

### **5.0 TRAINING**

- a. Initial Training: Designated employees, known as AED responders, shall have successfully completed initial or recertification training in adult CPR and be trained in the use of the AED within the past year.
- b. Recertification/Training: AED responders will receive annual training and recertification in adult CPR/AEDs from a qualified instructor.
- c. As needed/requested refresher programs in the use of the AED will be offered to Calvin College AED responders. EHS is responsible for arranging periodic refresher training.
- d. Training Records. A master file of initial, annual, and periodic refresher AED training records will be maintained by EHS.

### **6.0 APPENDICES**

Appendix A: AED Location and Equipment Inventory

Appendix B: AED Protocol and Flow Chart

Appendix C: AED Incident Report

Appendix D: AED Program Training Record

## 7.0 REVISIONS

Revision	Date	Description
2	5/20/2009	Changed formatting; added definition section; changed "AED Team Member" to "AED Responder"; removed CS responsibility for maintenance of AEDs under Responsibilities & Maintenance; referenced Cintas as contractor for monthly inspections; referenced EHS as the "AED Coordinator"; updated Appendix to include locations of new AEDs
3	10/20/10	Updated plan with new AED location in CFAC

## Appendix A: AED Location and Equipment Inventory

Location & Asset Tag #	AED Model & Series #	Accessories
<b>Campus Safety Supervisor Vehicle</b> 18590	Heartstart OnSite (battery expires 1/2014) A04K-00137	Spare battery (expires 4/2014) and Prep Kit
<b>Campus Safety Vehicle #1</b> 18602	Heartstart OnSite (battery expires 07/2015) A03L-00380	Spare battery (expires 4/2014) and Prep Kit
<b>Campus Safety Vehicle #2</b> 18603	Heartstart OnSite (battery expires 4/2010) A04L-00720	Prep Kit
<b>Chapel Narthex</b> On a column on the west side of room 18600	Heartstart OnSite (battery expires 07/2015) A04I - 00951	2 sets of defibrillator pads (08/2011) and Prep Kit
<b>Commons</b> By entrance to Johnny's Café 18597	Heartstart OnSite (battery expires 4/2012) A06J-01298	2 sets of defibrillator pads (08/2011) and Prep Kit
<b>Covenant Fine Arts Center</b> 1 <sup>st</sup> floor near art gallery	Heartstart OnSite	Prep Kit
<b>DeVos Communications Center</b> 1st floor lobby	Heartstart OnSite (battery expires 4/2013) A07H-01726	2 set of defibrillator pads (expires 2/2010 & 08/2011) and Prep Kit
<b>DeVries Hall</b> 1st floor atrium near elevator 18594	Heartstart OnSite (battery expires 11/2010) A04I - 00951	2 set of defibrillator pads (08/2011) and Prep Kit
<b>Hekman Library</b> 2nd floor main entrance near Rhetoric Center	Heartstart OnSite (battery expires 4/2013) A07H-02265	2 sets of defibrillator pads (expires 04/2012) and Prep Kit
<b>Hekman Library</b> 3rd floor hallway wear library meets HH near 385 18596	Heartstart OnSite (battery expires 4/2010) A04E-07121	2 sets of defibrillator pads (08/2011) and Prep Kit
<b>North Hall</b> 1st floor lobby across from Science Division	Heartstart OnSite (battery expires 4/2013) A07H-01808	2 sets of defibrillator pads (expires 08/2011) and Prep Kit
<b>Physical Plant</b> alcove leading from lunchroom to warehouse 18601	Heartstart OnSite (battery expires 07/2015) A05D-00940	2 sets of defibrillator pads (08/2011 & 08/2012) and Prep Kit

<b>Prince Conference Center</b> Lobby near front entrance 18594	Heartstart OnSite (battery expires 07/2015) A04E-01714	2 sets of defibrillator pads and Prep Kit
<b>2041 Raybrook</b> Northern stairwell	Heartstart OnSite (battery expires 04/2014)	2 sets of defibrillator pads (04/2011) and Prep Kit
<b>Seminary</b> Burton entrance	Heartstart OnSite (battery expires 03/2013) A04I - 00951	2 sets of defibrillator pads (expire 08/2011) and Prep Kit
<b>Seminary</b> Study area 18604	Heartstart OnSite (battery expires 5/2012)	2 sets of defibrillator pads (08/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> 2nd level hallway near HC 107	Heartstart OnSite (battery expires 04/2014) A08F-05617	2 sets of defibrillator pads (03/2011 & 04/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> 2nd level north side of climbing wall base	Heartstart OnSite (battery expires 04/2014) A08F-06401	2 sets of defibrillator pads (04/2011) and prep kit
<b>Spoelhof Fieldhouse Complex</b> ATHLETE'S FITNESS ROOM - 2nd level, VN 110	Heartstart OnSite (battery expires 04/2014) A08F-05297	2 sets of defibrillator pads (03/2011 & 04/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> ATHLETIC TRAINER'S OFFICE - 2nd level, VN 137	Heartstart OnSite (battery expires 04/2012) A08F-06372	2 sets of defibrillator pads (03/2011 & 04/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> FITNESS CENTER - northwest wall in SF 201	Heartstart OnSite (battery expires 4/2014) A08F-06374	2 sets of defibrillator pads (08/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> HEALTH SERVICES - near north end of offices	Heartstart OnSite (battery expires 07/2015) A05A-01185	1 set of defibrillator pads (08/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> HUIZENGA TRACK & TENNIS – near reception desk	Heartstart OnSite (battery expires 04/2014) A08F-06423	2 sets of defibrillator pads (03/2011 & 04/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> VANNOORD ARENA - 3rd level just inside entrance	Heartstart OnSite (battery expires 04/2014) A08F-04238	2 sets of defibrillator pads (03/2011 & 04/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> VANNOORD ARENA - southwest entrance near men's restroom 3rd level	Heartstart OnSite (battery expires 4/2014) A05C -00590	1 set of defibrillator pads (08/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> VENEMA AQUATIC CENTER - 3rd level main entrance	Heartstart OnSite (battery expires 04/2014) A08F-06285	2 sets of defibrillator pads (03/2011 & 04/2011) and Prep Kit
<b>Spoelhof Fieldhouse Complex</b> VENEMA AQUATIC CENTER - Pool Office	Heartstart OnSite (battery expires 10/2014)	2 sets of defibrillator pads (03/2011), 1 set

	A08F-06291	pediatric pads (08/2011) and Prep Kit
<b>Youngsma Center</b> 1st floor kitchen 18543	Heartstart OnSite (battery expires 11/2013) A08A-01643	1 set of defibrillator pads (11/2010) and Prep Kit

## **Appendix B: Protocol and Flow Chart**

The following HEARTSTREAM AED response protocol is for use by the AED Team of Calvin College. The Calvin College Medical Director approves it for use by approved members only. The protocol will be reviewed on an annual basis and replaced by a revised protocol as necessary. See the AED Response Protocol Flow Chart, following.

### **Conduct an initial assessment:**

- ❑ Assess for scene safety; use universal precautions.
- ❑ Assess patient for unresponsiveness.
- ❑ If unresponsive, activate EMS and in-house emergency plan. Call Campus Safety at 3-3333. Campus Safety will call 911 and send a CSO to escort EMS to the scene. Send someone to get the nearest AED.

### **Assess breathing and circulation**

- ❑ Open airway
- ❑ Look, listen and feel for breathing
- ❑ If breathing is absent and patient is unresponsive, provide CPR. Continue CPR until AED arrives.

### **Begin AED treatment**

- ❑ As soon as the AED is available, turn on the AED and follow the prompts.
- ❑ Shave chest with disposable razor if indicated. Discard razor in a safe manner. Wipe chest if it is wet.
- ❑ Apply defibrillation pads. Look at the icons on the AED pads and place the pads as shown in the illustrations. Ensure pads are making good contact with the patient's chest. Do not place the pads over the nipple, medication patches, or visible implanted devices.
- ❑ Deliver a shock to the patient when advised by the AED, after first clearing the patient area. Administer additional shocks as prompted by the AED, until the AED advises no shock or has delivered a series of three consecutive shocks and prompts to check the patient.
- ❑ When advised by the AED, check the patient's airway, breathing, and signs of circulation and initiate CPR if circulation is absent.
- ❑ Continue to perform CPR until otherwise prompted by the AED or EMS personnel.
- ❑ Continue to follow the HEARTSTREAM AED prompts until EMS arrives.

## **When EMS arrives**

Responders working on the victim should document and communicate important information to the EMS provider, such as:

- ❑ Victim's name
- ❑ Known medical problems, allergies or medical history
- ❑ Time the victim was found
- ❑ Initial and current condition of the victim
- ❑ Information from the HEARTSTREAM AED's screen or by pushing the "i" button:
  - ❑ Number of shocks delivered
  - ❑ Length of time defibrillator has been used
- ❑ Assist as requested by EMS providers

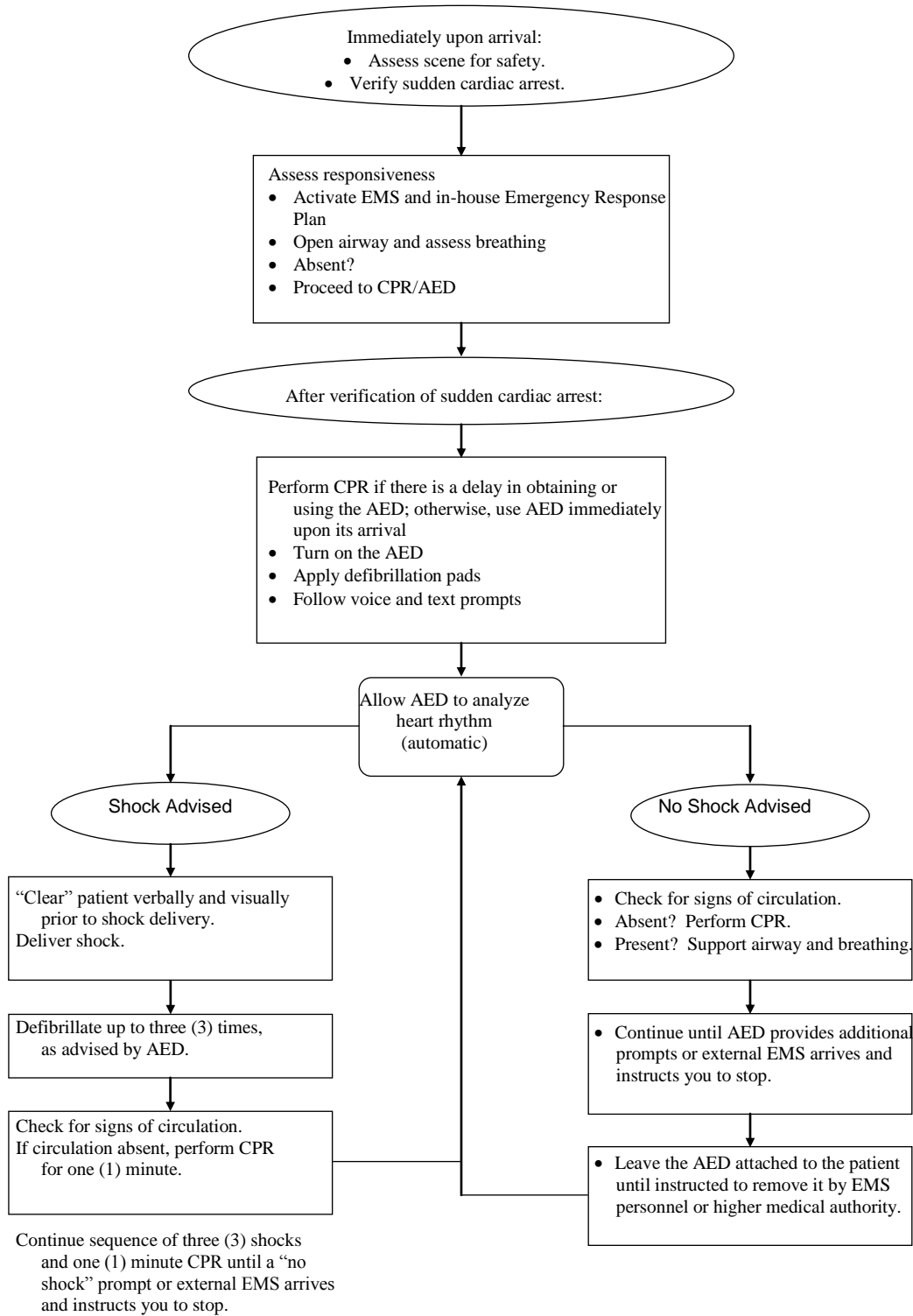
## **Post-Use Procedure**

- ❑ Remove the data card (FR2 model only) while transferring care of patient to EMS. Give the data card and the AED Incident Report to the AED Coordinator within 24 hours post-event for evaluation.
- ❑ AED Coordinator: notify early defibrillation program Medical Director.
- ❑ Check the AED and replace any used supplies as soon as possible following the event so that the AED may be returned to service. Perform the after-patient-use maintenance on the AED.
- ❑ AED Coordinator: conduct employee incident debriefing, as needed.
- ❑ AED Coordinator: complete the incident follow-up report and forward to Medical Director.

## **Maintenance after Each Patient Use**

- ❑ Inspect the exterior and connector for dirt or contamination.
- ❑ Check supplies, accessories and spares for expiration dates and damage.
- ❑ Check operation of the Heartstream AED by removing and reinstalling the battery and running a battery insertion test.
- ❑ OnSite Models: With assistance from Medical Director and West Michigan Health & Safety download data from AED for analysis.
- ❑ FR2 Model: Remove PC data card and replace it with a spare. Apply a patient ID label to the used PC card and deliver to the appropriate personnel.

# HEARTSTREAM AED RESPONSE Protocol Flow Chart



## Appendix C: AED Incident Report

### Patient Data

Patient Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_

Incident Date: \_\_\_\_\_ Location: \_\_\_\_\_

### Call Notification (include hour : minute : second for times recorded)

How was Team alerted? \_\_\_\_\_ Time alerted: \_\_\_ : \_\_\_ : \_\_\_

How was Team dispatched? \_\_\_\_\_ AED arrival time: \_\_\_ : \_\_\_ : \_\_\_

Who initiated 911 call? \_\_\_\_\_ Time called: \_\_\_ : \_\_\_ : \_\_\_

EMS arrival time: \_\_\_ : \_\_\_ : \_\_\_

### SCA Event Report

AED Operators: \_\_\_\_\_

Other witnesses: \_\_\_\_\_

Collapse/recognition: \_\_\_ : \_\_\_ : \_\_\_

Bystander CPR started: \_\_\_ : \_\_\_ : \_\_\_

911 called: \_\_\_ : \_\_\_ : \_\_\_

EMS dispatched: \_\_\_ : \_\_\_ : \_\_\_

Patient unresponsive:  Yes  No

Documented time: \_\_\_ : \_\_\_ : \_\_\_

Rescue breathing started:  Yes  No

Documented time: \_\_\_ : \_\_\_ : \_\_\_

CPR started:  Yes  No

Documented time: \_\_\_ : \_\_\_ : \_\_\_

AED applied:  Yes  No

Documented time: \_\_\_ : \_\_\_ : \_\_\_

First shock advised:  Yes  No

Documented time: \_\_\_ : \_\_\_ : \_\_\_

Additional shocks:  Yes  No

Total # of shocks delivered: \_\_\_\_\_

Return of circulation (pulse):  Yes  No

Documented time: \_\_\_ : \_\_\_ : \_\_\_

Return of respiration:  Yes  No

Documented time: \_\_\_ : \_\_\_ : \_\_\_

EMS scene arrival: \_\_\_ : \_\_\_ : \_\_\_

EMS arrival at patient: \_\_\_ : \_\_\_ : \_\_\_

Patient condition at EMS hand-off: \_\_\_\_\_

Care Given by EMS:  ALS  BLS

Patient transported: \_\_\_ : \_\_\_ : \_\_\_

Transported to: \_\_\_\_\_

Patient condition at hospital: \_\_\_\_\_

Comments: \_\_\_\_\_

Report Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

