# The Seattle-King County Community Responder CPR-AED Program

Building a Working Model for Integrated Community Cardiac Care

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## The Seattle-King County Community Responder CPR-AED Program

## A. Background

Cardiovascular disease is the single greatest cause of death in the United States. Every year more than 480,000 adult Americans die of a heart attack or its complications. About half of these deaths (250,000) result from sudden cardiac arrest, a complication of heart attack.<sup>1</sup>

Ventricular fibrillation, a disturbance in the electrical heart rhythm, is the most common cause of sudden cardiac arrest. Defibrillation is the only definitive treatment for ventricular fibrillation. The success of defibrillation diminishes rapidly with each passing minute, decreasing the chance of successful return of normal heart rhythm by 10% for each passing minute. Defibrillation by emergency medical technicians is recognized as the standard of care in most urban communities and increasingly so in suburban and rural communities.

Medical device engineers have developed external defibrillators that can automatically analyze the electrical heart rhythm and request a shock when appropriate. These machines are known as **Automatic External Defibrillators (AEDs)**. Clinical studies confirm minimally trained emergency responders can successfully perform early defibrillation using AEDs.

Since the early 60's, cardiopulmonary resuscitation (CPR) performed by lay rescuers has been responsible for a significant improvement in the survival of victims of cardiac arrest. The recent development of AEDs now makes it possible for lay rescuers to administer defibrillation as well. *Linking CPR with the use of AEDs by lay rescuers creates an even greater chance to improve survival from cardiac arrest.* 

A 1998 Washington State law protects lay responders in the use of AEDs. The Seattle Fire Department and King County Emergency Medical Services are committed to support their constituents in the appropriate application of this process. This document outlines a **Community Responder CPR-AED Program** in Seattle and King County -- a guide to improving the overall safety and effectiveness of linking CPR with the use of AEDs in the community.

The key to this program is preserving the **principle of continuity of emergency medical services (EMS) patient care**: Once 911 is called, every person treated with an AED at a public site will become the responsibility of EMS personnel, the EMS system, and the system's medical directors and subsequent care providers.

## B. Program Goals

The major goal of the *Seattle-King County Community Responder CPR-AED Program* is to improve survival from sudden cardiac death in Seattle-King County, Washington. This program should improve survival rates by reducing the time to defibrillation by having community responders use AEDs in either a public setting, or in the individual residence of a high risk patient.

## C. Program Components

The components of the Community Responder CPR-AED Program are:

- public and private sites willing to participate in a community responder CPR-AED program;
- community clinicians caring for high risk patients;
- community CPR-AED training programs (including American Heart Association, American Red Cross, National Safety Council, and any existing state-approved courses)
- AED manufacturers;
- an EMS-affiliated medical authorization process consistent with state regulations on the use of defibrillators;
- community 9-1-1 dispatch centers;
- local EMS services including EMT-level responders, paramedics, and police (when responding);
- compliance with enabling legislation RCW 70.54.310 (Appendix B).

Remember, the law states; anyone who has an AED must register the device with EMS.

## D. Community CPR-AED Coordinator

A key part of this program is maintaining communication between the site and the *Community CPR-AED Coordinator*, who will serve as an information source and non-emergency link with the EMS system. Barbara Welles is the designated Community CPR-AED Coordinator. Barbara works for King County EMS and can be reached at 206-263-8669.

## E. Steps for Implementation

Flow chart – see Appendix A

#### 1. Site expresses initial interest in a CPR-AED Program.

• Advertising, public media, personal word-of-mouth, as well as active corporate marketing has generated numerous inquiries to EMS services

regarding the questions "Where do I get an AED?", "Where do I get training?" and/or "How and where do I use an AED?"

• The *Community Responder CPR-AED Program* informational brochure will be available upon request from local hospitals, fire departments, Medic One, King County EMS and AED manufacturers.

#### 2. Site expresses definite interest in program implementation.

- This document will be provided to the Community Responder Site as an implementation packet upon request.
- The site is notified that Barbara Welles, Community CPR-AED Coordinator, can provide the following:
  - A) A list of state-approved AED Courses and numbers to contact the facilities who provide these courses and the instructors who teach them;
  - B) A list of resources for post-event psychological intervention and support;
  - C) A list of numbers to call manufacturers for costs involved in the upkeep and maintenance of the AED;
  - D) Purchase Order Authorization (examples from manufacturers and physicians);
  - E) Annual Site Review Report (a post card or letter to be filled out by the site and returned to King County EMS);
- The Community CPR-AED Coordinator will make brief follow-up contact to determine what further information, if any, is needed.

#### 3. Site completes the following tasks:

- Call Barbara Welles, Community CPR-AED Coordinator, at 206-263-8669.
- Select and assign a person(s) from the site as the "site coordinator"
- Arrange a date for a site visit. This role may be assumed by the local EMS agency.
- Select a Washington State approved training program and complete training.

For a list of State approved Training programs contact: Dan Kessler, Washington State Dept. of Health, Olympia, Washington 1-800-458-5281

- Maintain copies of site training records.
- Maintain a copy of the site maintenance policy and procedures.
- Complete and sign the *Community Responder Site Documentation* form (Appendix D) and mail to King County EMS. Information from this form will be maintained in a database by King County EMS.
- Report an AED event and arrange for the transfer of event data by contacting Barbara Welles, Community CPR-AED Coordinator, at 206-263-8669.
- Contact King County Emergency Medical Services when a new device is purchased and/or when site information changes.

#### 4. Site Recognition

- Medical Director issues protocol;
- King County Emergency Medical Services notifies appropriate dispatch center, BLS and ALS Provider of the location of AED, make and model of the device, and special circumstances, etc. This information is added to the dispatch center premise information screen.
- King County Emergency Medical Services maintains database.

#### 5. Community Responder Site support.

- Barbara Welles, Community CPR-AED Coordinator, will be available to answer questions at 206-263-8669.
- A site status post card will be mailed to the site annually from King County Emergency Medical Services to update information.

#### 6. Post-event Documentation

Post-event steps:

Steps to be completed by the Site Coordinator:

- Determine a plan to report the use of a Public Access Defibrillator to King County Emergency Medical Services;
- Contact the manufacturer for new pads and/or any problems with the device;

Steps to be completed by the Community CPR-AED Coordinator:

- Determine a plan for obtaining the event documentation module of the AED when used;
- Restore AED to service using the manufacturer's directions.
- Determine a mechanism to evaluate the event;
- Provide post-event psychological support to any rescuers, family members or co-workers. These resources will be available upon request from King County EMS.

### F. References

1., Heartsaver AED for the Lay Rescuer and First Responder, Aufderheide, T. MD, Stapleton, E., Hazinski, M.F., American Heart Association 1998.

## **List of Appendices**

- Appendix A Flow Chart for CPR-AED Program Appendix B – RCW 70.54.310
- Appendix C List of expectations for the Community Responder Site
- Appendix D Community Responder Site Documentation forms
- Appendix E Medically authorized protocols for use of the AED

### Appendix A: Flowchart to a successful Community Responder CPR-AED Program Estimated one month's time to complete

Initial site interest King County Emergency Medical Services Seattle Fire Department Brochure Local fire department Manufacturers **Definite site interest** King County EMS **Implementation Packet** Seattle Fire Department Manufacturers Site calls Barb Welles, Community CPR-AED Coordinator, for packet & further information: 206-263-8669. Packet contains: Program description/background information for Community Responder Site. 1. 2. List of expectations/considerations Site documentation form 3. Medical Director's protocol 4. Go-ahead decision Community Responder Site King County EMS Fire department/district Site visit Recognized trainer Select and assign a person(s) from the site as the "Site Coordinator" 1. 2. Select a State approved training program and complete training Assist in completion of site documentation form and attachments 3. Establish a site procedure to notify King County Emergency Medical Services when an event occurs and 4. arrange to have the AED event data downloaded from the device. 5. Answer questions Site documentation sent to Barb Welles, Community CPR-AED Coordinator (phone: 206-263-8669) 6. **Completed Site Documentation** Seattle Fire Department Site Recognition King County EMS Medical Director issues protocol 1. 2. Notification to 911 dispatch centers/local fire departments/paramedic providers 3. Maintain database/file **Operational Community Responder CPR-AED site Cardiac Arrest Event** Community Responder Site King County EMS **Post-event activities** Seattle Fire Department Site contacts CPR-AED Coordinator 4. Event evaluation. 1. Transfer event data. 2. 5. If requested, provide post-event psychological support. 3. Restore AED to service. 6. Monitor the program.

## **Community Responder CPR-AED Program**

## Appendix B

RCW 70.54.310

## RCW 70.54.310 Semiautomatic external defibrillator--Duty of acquirer--Immunity from civil liability.

- (1) As used in this section, "defibrillator" means a semiautomatic external defibrillator as prescribed by a physician licensed under chapter 18.71 RCW or an osteopath licensed under chapter 18.57 RCW.
- (2) A person or entity who acquires a defibrillator shall ensure that:
  - (a) Expected defibrillator users receive reasonable instruction in defibrillator use and cardiopulmonary resuscitation by a course approved by the department of health;
  - (b) The defibrillator is maintained and tested by the acquirer according to the manufacturer's operational guidelines;
  - (c) Upon acquiring a defibrillator, medical direction is enlisted by the acquirer from a licensed physician in the use of the defibrillator and cardiopulmonary resuscitation;
  - (d) The person or entity who acquires a defibrillator shall notify the local emergency medical services organization about the existence and the location of the defibrillator; and
  - (e) The defibrillator user shall call 911 or its local equivalent as soon as possible after the emergency use of the defibrillator and shall assure that appropriate follow-up data is made available as requested by emergency medical service or other health care providers.
- (3) A person who uses a defibrillator at the scene of an emergency and all other persons and entities providing services under this section are immune from civil liability for any personal injury that results from any act or omission in the use of the defibrillator in an emergency setting.
- (4) The immunity from civil liability does not apply if the acts or omissions amount to gross negligence or willful or wanton misconduct.
- (5) The requirements of subsection (2) of this section shall not apply to any individual using a defibrillator in an emergency setting if that individual is acting as a good Samaritan under RCW 4.24.300. [1998 c 150 § 1.]

### **Community Responder CPR-AED Program**

## Appendix C

Community Responder Site Expectations

This list includes site expectations based on RCW 70.54.310.

- obtain CPR-AED training for an appropriate numbers of employees so as to assure a high probability that a trained responder will be on site during the major hours of operation
- maintain a roster of trained employees, dates of training and renewal training at the site
- provide renewal training at intervals of at least every 2 years
- provide training for new employees to replace those responders who may move on
- set up a device inspection and maintenance program consistent with the manufacturers guidelines
- contact Barbara Welles, Community CPR-AED Coordinator, at 206-263-8669, whenever the AED is opened and applied to a person, regardless of whether a shock was delivered or the victim was in cardiac arrest
- agree to telephone interviews with the Community CPR-AED Coordinator, whenever an event occurs
- agree to provide the event documentation module/tape/PC card to the Community CPR-AED Coordinator whenever a cardiac event occurs
- agree to a post-event, face-to-face debriefing session with the Community CPR-AED Coordinator
- notify the Community CPR-AED Coordinator if any substantive changes occur in the program parameters

## Appendix D King County CPR-AED Community Responder Program Site Documentation Form

Please check one:							
Request Medical Direction to purchase an Automated External Defibrillator (AED)     I would like to purchase an Automated External Defibrillator and request medical oversight.							
Request Medical oversight of AED Program I currently have an Automated External Defibrillator and would like to obtain medical oversight.							
Request Registrati						U U	
I currently have an Au	itomated Exteri	nal Defibrillat	or and medic	al oversight a	nd would l	ike to register the dev	ice.
Medical Director:				Program I	Vame:		
Request to update     My device is registere		unty EMS an	d I would like	e to update m	y site infori	mation.	
Customer Information	n: Please PRI	NT LEGIBL	Y			**/	Required Information
**Company or;							
If Private Resident list							
**Customer Name:							
Business Type: (Ex: La School, Manufacturer, Pul		First	Name			Last N	ame
**Physical Address:							
-							
			Stree	et Address			Suite/Apt #
Address 2:							
	Street Address Suite/Apt #						
City, State, Zip:	City			State		Zip	
**Mailing Address: 🗌				olulo		<i>p</i>	
Address 1:	-						
				et Address			Suite/Apt #
Address 2:							
			Stree	et Address			Suite/Apt #
City, State, Zip:	City			State		Zip	
Days of Operation:				_			
Please check all that apply	🗌 Mon	U Tues	U Wed	Thurs	🗌 Fri	🗌 Sat 🔲 Sun	7days/Week
Hours of Operation:			_		24	/7 (Ex: Private Resid	lence, 24hr Business)
	Start 1			End Time			
<b>Contact Information:</b> If you have more than one site coordinator, please use a blank sheet to provide the following Contact information for each Site Coordinator and Site Manager. Please identify the AED # or Location of device he/she is responsible for.							
**1 <sup>st</sup> Contact: List you	ur Site Coordina	ator		**2 <sup>nd</sup> C	ontact: Li	ist your supervisor	
Name							
	irst		Last		First		Last
Title							
Phone							
Cell							
Email Training Information:							
Training Program: Ex: American Heart Assoc., American Red Cross							
Number of People trained: Date initial Training completed:							

		Appendix D - Continued					
**Total No of AED's:			ice please use the section below to list of this form or blank sheets to record a				
AED #1	Serial #	Date AED put into operation					
**Make		**Model					
Location		Same as 🗌 Physical Address					
	Address 1:	04	treet Address	Suite/Apt #			
	Address 2:	Su	reel Address	Sune/Apt #			
City		St	treet Address	SuiteApt #			
		City		Zip			
this locat		of Vistors	reside at this location	· · ·			
Placemer	nt of the Device:	Describe the approximate location	n your device is placed in your home, b	pusiness or vehicle:			
Site Visit	Completed by:		Last Name				
		First Name	Last Name Dept: List the name of the Fire	Agency			
D	ate of Site Visit:		sponds to your location.				
AED #2	Serial #		Date AED put into opera	ation			
**Make		*	**Model				
	of the Device:	Same as 🗌 Physical Address					
		St	treet Address	SuiteApt #			
	Address 2:	C+	treet Address	SuiteApt #			
Cit	y, State, Zip:						
Number of this locat	of Employees at ion		Private Residence: List nun	<sup>Zip</sup> nber of people who			
Placemer	nt of the Device:		n your device is placed in your home, b	usiness or vehicle:			
Site Visit	Completed by:	<b>F</b> ( <b>M</b> )					
		First Name Local Fire	Last Name <b>Dept:</b> List the name of the Fire	Agency			
D	ate of Site Visit:		sponds to your location.				
AED #3	Serial #		Date AED put into opera	ation			
**Make		*	**Model				
Location		Same as 🗌 Physical Address					
			treet Address	SuiteApt #			
	Address 2:		treet Address	SuiteApt #			
Cit	y, State, Zip:						
Number of this locat	of Employees at ion	Citv Number of Vistors	State <b>Private Residence:</b> List nun reside at this location	Zip nber of people who			
Placemer	nt of the Device:		n your device is placed in your home, b	usiness or vehicle:			
Site Visit	Completed by:						
	. ,	First Name	Last Name	Agency			
D	ate of Site Visit:		<b>Dept:</b> List the name of the Fire sponds to your location.				

Attach the following documentation:

- 1. Copy of Medical Directive to manufacturer for AED purchase
- 2. Medical Director's AED protocol
- 3. Maintenance and testing policy and procedures
- 4. Training/retraining policy

Disclaimer Statement: The agencies, employees or assigns of King County, the City of Seattle and Public Health - Seattle and King County hold no responsibility individually or collectively for the activities performed pursuant to this document, in relation to the public use of automated external defibrillators in King County, or resulting from the Community Responder CPR-AED Program in King County.

Medical direction is extended to the Community Responder Site based on documentation supplied by the site that requirements established in RCW 70.54.310 have been met.

"I/We hereby affirm and declare that the information provided herein is true and correct, and I/We will:

- 1. Assure that state-approved training for the Community Responder CPR-AED Program will be completed prior to installation of AED unit(s)
- 2. Will follow protocol related to the use, ownership, maintenance and other aspects of public use of automated external defibrillators as described in this document and via the abovementioned CPR-AED training.
- 3. Will provide event data to Seattle Fire Department or King County Emergency Medical Services via the mechanism provided through the Community Responder CPR-AED Program.
- 4. Have read and understand and am/are in compliance with RCW 70.54.310 and will remain in compliance with that statute.
- 5. Agree to maintain knowledge of and implement this program consistent with the current standard of care during the life of this program.

Executed this	day of	,	at			, WA
	-	(month)	(year)		(city when signing)	
Signature			-			
Printed Name						

If you are registering more then one device please provide a Site Locations, Address, Site Coordinator name and phone number for each AED.

#### Please Return Form to:

Barbara Welles or Leah Doctorello 401 5<sup>th</sup> Ave., Suite 1200 Seattle, WA 98104 Please retain for your Site records

## **Personnel Trained for CPR-AED**

Last name	First name	Level of medical training	CPR-AED training	Date

Instructor (Please Print Legibly)

Signature

Date

Instructor Agency

#### **Community Responder CPR-AED Program**

## Appendix E

Medically Approved Protocols for use of the AED



### Heartsaver AED Course

#### **Critical Actions**

- Assess responsiveness.
- Call 911; get the AED.
- Open the airway.
- If not breathing, provide 2 breaths (must cause the chest to rise).
- Check for signs of life.
- Begin chest compressions (must have proper hand placement).
- POWER ON the AED.
- Attach pads to patient's bare chest in proper location.
- Clear victim before analysis and shock (avoid contact with victim).
- Check breathing and signs of life "no shock indicated" message.
- Time from start to first shock is less than 90 seconds
- AED should be placed on same side of patient as the user.

Disclaimer Statement: The above protocols are approved for use in Washington State by the state Department of Health, and may be approved for use in Seattle-King County by Mickey Eisenberg, M.D. Dr. Eisenberg may extend his medical direction, including his approval of the use of the above protocols, to the Community Responder Site, pending receipt of documentation supplied by the site demonstrating that requirements established in RCW 70.54.310 have been met, and pending notification from Barbara Welles, Community CPR-AED Coordinator, that the site is operating within the guidelines of the Seattle-King County Community Responder CPR-AED Program.