

PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
Heart Safe Workplace AED Plan

3/03

1. Introduction

The following document describes the policies and procedures to be used in governing the Heart Safe Automated External Defibrillator (AED) program of Pellissippi State Technical Community College (PSTCC). It is the goal of this program to provide a rapid response to sudden cardiac arrest for students personnel, and visitors of PSTCC. It is the intent of this document to give the AED Responders general guidance in response to an incident of sudden cardiac arrest (SCA). The document is not intended to cover all circumstances involved in such emergencies. All AED Responders must operate within the parameters of this early defibrillation program. Annual review of this document will be conducted by the Director of Facilities, Safety and Security for content and guideline modifications to meet Federal, State, and local standards.

2. Scope

This document describes the policies and procedures of PSTCC relating to its Heart Safe Workplace AED program (Heart Safe) utilizing employees who serve as trained responders in CPR and Automatic External Defibrillator (AED) therapy in the event of a medical emergency.

3. Purpose

The purpose of this document is to establish a consistent guideline for application, location, maintenance, and various other components described herein involving the Heart Safe Workplace AED program. A response time of six minutes from time of incident to first shock is the intended goal whenever possible, in order to increase the likelihood of survival in the event of sudden cardiac arrest (SCA).

4. Definitions

- 4.1 AED Responder** - An individual who is trained in AED use and is available to respond to SCA medical emergencies.
- 4.2 Automated external defibrillator (AED)** - An automated computerized medical device programmed to analyze heart rhythm, recognize rhythms that require defibrillation, and provide visual and voice instructions for the device operator, including, if indicated, to push the button to deliver an electric shock.
- 4.3 Cardiopulmonary resuscitation (CPR)** - Rescue breathing and external cardiac compression applied to a victim in respiratory and/or sudden cardiac arrest.

- 4.4 **Emergency Medical System (EMS)** - Professional community responder agency for emergency events, which provide medical assistance and/or ambulance transport.
- 4.5 **Rescue breathing** - Artificial ventilation of a victim in respiratory and/or sudden cardiac arrest.
- 4.6 **Sudden cardiac arrest (SCA)** - A significant life-threatening event when a person's heart stops or fails to produce a pulse.

5. **AED Responder Roles and Responsibilities**

5.1 **Safety and Security Department**

It is the responsibility of the Safety and Security Department to:

- 5.1.1 Develop and maintain the AED emergency response plan and system policies and procedures.
- 5.1.2 Review the program annually to evaluate effectiveness.
- 5.1.3 Participate in case reviews, responder training and retraining, data collection and other quality assurance activities.
- 5.1.4 Ensure compliance with the policies and procedures of the AED program.
- 5.1.5 Assure compliance with state and local regulations regarding AED use.
- 5.1.6 Maintain a list of AED responders and their training records.
- 5.1.7 Following an event, assure an Incident Form is promptly completed.
- 5.1.8 Maintain confidential files of event data.
- 5.1.9 Maintain files of records pertinent to the AED program and assure responsibilities delegated to others as outlined herein are completed.

5.2 **Site AED Coordinator**

It is the responsibility of the Site AED Coordinator to:

- 5.2.1 Participate in responder training, data collection, other quality assurance activities, and assist in retraining, as needed.
- 5.2.2 Assure maintenance of the AED and related response equipment by performing monthly inspections of the equipment and supplies.
- 5.2.3 Replace any supplies as needed.
- 5.2.4 Report any performance discrepancies, device defects, or missing, expired, and/or damaged accessories to the Safety and Security Department immediately.
- 5.2.5 Maintain a list of trained AED responders at their site and communicate additions and changes to the Safety and Security Department.
- 5.2.6 Following an event, assure an Incident Form is promptly completed with the Safety and Security Department.

5.2.7 Ensure compliance with the policies and procedures of the AED program.

5.2.8 Assure compliance with state and local regulations regarding AED use.

5.3 AED Responders.

It is the responsibility of the AED Responders to:

5.3.1 Successfully complete all required AED training.

5.3.2 Respond to emergency calls related to AED use.

5.3.3 Follow the guidelines of the AED program and remain current on the AED training.

6. AED Equipment

6.1 Description.

The equipment provided in support of the early defibrillation program is to be used in the event of an SCA at the Pellissippi Campus location. This equipment shall not be used outside the parameters of the AED program. The device will be maintained according to PSTCC policy and following manufacturer's guidelines. PSTCC has elected to use the Medtronic LIFEPAK CR Plus AED for its AED program.

6.2 Location.

The AED is mounted on the wall behind the front desk counter at the Student Recreation Center. This location should include the following items:

- Medtronic LIFEPAK CR Plus AED with battery installed (1)
- Carrying Case (1)
- Defibrillation Pads (2 sets)
- Accessories (scissors, towel, razor, pocket mask, gloves)

6.3 Accessories

All accessory equipment must remain with the AED unit and must be inspected monthly for readiness for use and integrity of the device. This is part of the periodic inspection and is the responsibility of the Site AED Coordinator.

7. AED Maintenance

7.1 Reports of Damage

Follow the manufacturer's recommendations for all scheduled AED maintenance checks. Report any performance discrepancies, device defects, or

missing, expired, and/or damaged accessories to the Safety and Security Department immediately.

7.2 Calibration

The Medtronic LIFEPAK CR Plus AED requires no calibration and has no user-serviceable parts. The AED performs regular self-tests to assure that it is ready for use. While the maintenance required for the Medtronic LIFEPAK CR Plus AED is minimal, it is important that a regular check of the AED be performed to assure readiness, as described in the Medtronic LIFEPAK CR Plus AED User's Guide.

7.3 Maintenance Schedule

Refer to the suggested maintenance schedule in the Medtronic LIFEPAK CR Plus AED User's Guide. The Medtronic unit checklist will be used to document periodic inspection of the unit by the Site AED Coordinator.

7.4 Cleaning

When necessary, clean the AED using recommended cleaning agents, per the Medtronic LIFEPAK CR Plus AED User's Guide.

8. AED Response Plan Overview

8.1 Initiation of Heart Safe AED Response

Any individual who recognizes a medical emergency initiates the Heart Safe Workplace AED Plan immediately by calling the Safety and Security Department emergency line at 6649 from a campus phone or 694-6649 from a cellular phone and providing the following information:

- Reporting person's name
- Type of emergency
- Location of emergency
- Brief description of the victim

8.2 Emergency Responder Notification

Safety and Security Department personnel will contact 9-1-1 and appropriate emergency response personnel and equipment will be dispatched to your location.

8.3 AED Responder

At the scene, the AED responder verifies scene safety before assessing the victim, and then renders appropriate care based upon the victim's condition

and PSTCC AED response protocols. The responder should continue to provide appropriate victim care until a higher medical authority arrives or the victim refuses care. Once emergency responders arrive, the AED Responder transfers victim care to the EMS agency for appropriate advanced medical treatment. The AED Responders are to perform only to the level of their training

8.4 Post-Event Procedures

After transferring victim care to EMS, the responder needs to complete an incident report with the Safety and Security Department. The responder must immediately notify the Site AED Coordinator the unit has been in use and needs to be inspected, supplies replaced as needed, and returned to its designated location.

8.5 Debriefing Procedures

As soon as possible, a debriefing should be conducted to evaluate the Heart Safe response efforts. The Site AED Coordinator, AED Responder, and Safety and Security Department should conduct an evaluation of all aspects of the emergency response and the strengths and deficiencies of the response plan as revealed by the incident. Modifications made to the plan must be approved and properly communicated to all AED Responders of record.

9. Protocol Guidelines

9.1 AED Application Guidelines

Once the AED is turned on and the pads applied to the victim, the AED Responder shall not remove the pads or turn off the device unless prompted by the device itself or directed by a higher medical authority. In all cases, the Responder shall continue to assess the victim's airway, breathing, and circulation and provide CPR as indicated.

9.2 AED Application Criteria

The AED shall be applied only to victims who are unresponsive and not breathing.

9.3 Defibrillation Procedure

Defibrillation shocks are to be delivered only in accordance with the PSTCC AED response protocol. If the device advises no shocks, the AED Responder should follow the approved protocols for victim care and CPR.

9.4 Wet or Metal Surfaces

The AED should not be used on wet or metal surfaces. Always follow all Medtronic AED recommended safety precautions.

9.5 Excessive Chest Hair

If required for proper defibrillation pad adhesion, any excess hair on the victim's chest must be shaved with a prep razor supplied in the AED kit. A smooth shave is not required.

9.6 Medication Patches

Using a gloved hand, remove any medication patches, if present, from the victim's chest prior to pad placement and wipe the skin clean with a cloth.

9.7 Implanted Pacemakers and Defibrillators

If the victim has an implanted pacemaker or internal defibrillator, do not place the defibrillation pads directly over the implanted device. If the presence of an implanted device affects pad placement, place the defibrillation pad as close to the recommended pad placement as possible.

10. AED Response Protocol

10.1 Initial Assessment

The first AED Responder conducts an initial assessment to determine the level of response required. This initial assessment includes:

- Assessment of the scene for safety of self and other responders.
- Use of gloves and other universal precautions prior to victim contact.
- Assessment of the victim for absence of responsiveness, respiration, and signs of circulation.
- Assessment for additional information about the victim or scene. Information gathered at the scene should be relayed to the Safety and Security Department for dissemination to responding parties.

10.2 AED Response Plan and Emergency Call

The initial AED Responder verifies that the AED response plan has been activated and that emergency services have been notified. If the AED is not present at the scene, the responder verifies that it is being brought immediately.

10.3 CPR Procedures

In the absence of the AED, the AED Responder initiates CPR by establishing an airway, ventilating the victim, and beginning chest compressions until the AED arrives.

10.4 AED Application

Press the LID RELEASE/ON-OFF button to open the lid and turn on the AED as soon as it arrives at the scene and follow its voice prompts. The AED unit will prompt the responder to call for help, remove any clothing from the chest area, pull the red handle to open the bag, peel each pad off the blue plastic, and apply the pads to the exposed chest. If more than one AED Responder is present, one can apply the defibrillation pads and operate the AED while the other continues CPR until told to stop. Perform any special procedures required (removal of medication patches, shaving of excessive chest hair, clean or dry the chest area, etc.) as outlined in the Medtronic AED response protocol guidelines prior to placing the pads on the victim's bare chest.

10.5 AED Heart Rhythm Analysis

When the pads are properly attached to the victim and connected to the AED, the device will give a voice prompt to not touch the victim and automatically analyze for a shockable rhythm – such as ventricular fibrillation (VF). Ensure that no one touches the victim during rhythm analysis. On completion of rhythm analysis, the AED will prompt the rescuers as to the appropriate course of action. Follow the device prompts in treating the victim.

10.6 AED Shock Sequence

If the AED gives a “Stand by, preparing to shock” prompt, ensure that no one is touching the victim. The unit will indicate it is charging, warn for everyone to be clear, and then prompt the responder to press the flashing button to administer the charge. Shock delivery will be followed by re-analysis of the victim's heart rhythm by the AED. If additional shocks are advised by the AED, the device will shock up to three times then will prompt to check for a pulse, breathing signs, or signs of circulation. If absent, then CPR should be started and performed for one minute. The device will countdown one minute of CPR and will automatically re-evaluate the victim's heart rhythm. Follow the above sequence until the AED prompts otherwise or EMS arrives. Leave the AED attached to the victim until EMS arrives and disconnects the unit.

10.7 No Shock Advised Procedure

If the AED gives a “No Shock Advised” prompt and the victim is not breathing and has no signs of circulation, administer CPR until the victim regains signs of circulation, the AED advises to stop CPR for analysis, or EMS arrives and assumes care of the victim. If the victim is not breathing but does have signs of circulation, perform rescue breathing until the victim regains adequate respiration, the AED advises to not touch the victim for analysis, or EMS arrives and assumes victim care. Conduct continuous monitoring of the victim’s condition and evaluation of rescue in accordance with AED Responder training. The unit will automatically evaluate the victim’s heart rhythm after one minute. Leave the AED attached to the victim until EMS arrives and disconnects the unit.

10.8 Victim Monitoring

Once the AED has been applied to the victim, do not turn off the AED or remove the defibrillation pads unless prompted by the device. The AED will continue background monitoring of the victim’s heart rhythm and alert the rescuers if additional shocks are required. Continue to assess the victim’s airway, breathing, and circulation and provide CPR as indicated.

10.9 EMS Arrival

Upon arrival of EMS, transfer victim care to the EMS team. If requested by EMS, assist in victim care. Give the EMS agency a complete oral report of the event and any significant findings.

11. Post Incident Procedures

11.1 Incident Report

The AED Responder must complete an Incident Report with the Safety and Security Department. The Responder who provided care to the victim must document all accounts of the medical event and any victim care given on the Incident Report. The Incident Report is a part of the victim care record and is confidential. Discussion of all aspects of the event is to be limited to Responders, in debriefing, or in training sessions. To prevent violation of victim confidentiality, AED Responders are to refrain from open discussion about any aspects of the medical event. Victim confidentiality must be maintained in accordance with all state and federal regulations.

11.2 Response Protocol Irregularities

Any protocol or equipment irregularities that occurred during the SCA event are to be reported to the Site AED Coordinator immediately for appropriate action. The Site AED Coordinator is to ensure that the Safety

and Security Department is notified of any equipment irregularities so that the device manufacturer may be contacted immediately.

13.4 AED Debriefing Procedures

A debriefing, headed by the Director of Facilities, Safety and Security, is to be conducted with all Responders to the event and the Site AED Coordinator. The response procedures will be reviewed and revised if necessary. Any revisions will be approved and all AED Responders will be notified of the revisions.

13.5 AED Check Procedures

Before returning the AED to service, the Site AED Coordinator will perform the following post-event procedures:

- Check the AED visually for damage or missing parts.
- Replace all supplies used during the event.
- Clean the unit as instructed by the manual.
- Verify battery has a charge and replace as needed.
- Return the AED to its designated area for future use.

15. Training

The AED Responders shall be responsible for maintaining all required AED/CPR training. PSTCC requires successful completion of an approved AED/CPR training course. The Safety and Security Department, with assistance from the Site AED Coordinator, will track training requirements and notify each Responder of any deficiencies or renewals required.