California Institute of Technology

AUTOMATED EXTERNAL DEFIBRILLATOR PROGRAM

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INTRODUCTION

Automated External Defibrillators (AEDs) commonly refers to any device that analyzes cardiac rhythm and prompts a user to deliver a shock when necessary. These devices only require a user to attach pads to a patient's chest, turn the device on, and follow audio instructions. They do not require any decision-making or interpretation of symptoms.

AEDs use embedded computer chips to quickly and accurately analyze heart rhythms, making it possible for non-medical professionals to administer a controlled electric shock to a victim of sudden cardiac arrest. The devices ensure that an electric shock is delivered only when necessary.

The AED will enable victims to receive early defibrillation in the first critical moments after a sudden cardiac arrest. Responder's use of the AED should not replace the care provided by Emergency Medical Service (EMS) providers but it is meant to provide a lifesaving bridge during the first critical minutes it takes for advanced life support providers to arrive. Upon arrival of the EMS providers, patient care should be transferred.

The California Institute of Technology (Caltech) AED program complies with California Code of Regulations, Title 22, § 100031, Lay Rescuer Automated External Defibrillator Regulations.

PROGRAM RESPONSIBILITIES

HEALTH CARE CENTER

Caltech's Medical Director is responsible for medical oversight, which includes performing a medical review each time an AED is used at Caltech.

This person also ensures that training shall comply with the American Red Cross CPR and AED guidelines and include the following topics and skills:

- Basic CPR skills.

- Proper use, maintenance and, inspection of an AED.

- Defibrillator safety precautions, allowing application without jeopardizing the safety of the patient or themselves.

- Assessment of an unconscious patient, which includes evaluation of the airway and breathing, to determine the appropriateness of applying and activating the AED.

- Recognition that an electrical shock has been delivered to the patient.

SECURITY OFFICE

The Security Office is responsible for initially responding to incidents at Caltech. Security Officers are certified as "First Responders" which allows them to provide pre-hospital care in the event of medical emergencies. Responsibilities include:

- Maintaining American Red Cross Certification as "First Responders" for their Security Officers.

- Insure officers complete a training course in CPR and AED at a minimum of every two years.
- Maintain their AEDs in working order.
- Inspecting the AEDs after every use and at least once every 30 days.
- Keep records of inspections for their AEDs.

ENVIRONMENT, HEALTH, AND SAFETY OFFICE (EH&S)

- The Environment, Health, and Safety Office is responsible for assuring that Caltech's AED program complies with California Code of Regulations, Title 22, § 100031, Lay Rescuer Automated External Defibrillator Regulations. Responsibilities include:
- Review of the AED program for compliance on a yearly basis.
- Maintain inventory of AEDs at Caltech.
- Including expiration dates of electrodes and batteries.
- Contact for Divisions or Departments interested in purchasing AEDs.
- Provide information about Caltech's AED program.

DIVISIONS OR DEPARTMENTS

Caltech's divisions or departments are responsible for purchasing AEDs within their respective buildings. Responsibilities include:

- Notifying EH&S of a potential purchase of an AED.
- Providing American Red Cross CPR and AED training to potential users of the AED.
- Maintaining the AEDs in working order.
- Inspecting the AEDs after every use and at least once every 30 days.
- Notifying Caltech's Medical Director and EH&S of use of the division or department's AED.
- Keeping records of inspections for their AEDs.

LOCATIONS

AEDs are located in all primary buildings on campus.