Princeton University

Automatic External Defibrillator Program
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Introduction
Heart disease is a significant health problem that, according to the American Heart Association, affects nearly 8 percent of all Americans and results in nearly 350,000 deaths each year. While several electrical abnormalities can result in sudden cardiac arrest, the majority begin with ventricular fibrillation. Rapid treatment of ventricular fibrillation, through the application of a controlled electrical shock, is essential to the victim’s survival. The American College of Occupational and Environmental Medicine (ACOEM) recommends placement, when practical, of Automated External Defibrillators (AEDs) in sufficient workplace locations to allow initiation of resuscitation and use of the AED (the so-called “drop to shock” interval) within 5 minutes of recognized cardiac arrest.

Purpose
To ensure that the University AED Program meets appropriate portions of ACOEM’s Guidelines for the Use of Automatic External Defibrillators (AEDs) in Workplace Setting and the Department of Health and Human Services (HHS) Guidelines for Public Access Defibrillation Programs in Federal Facilities, and satisfies New Jersey state laws pertaining to AED acquisition and use.

Program Responsibilities
The University AED Program Administrator, Derek Ziegler, Environmental Health & Safety, is responsible for administrative oversight of the University’s AED Program, in consultation with the University AED Program Medical Advisor. Responsibilities include:

- Develop and maintain a written program for the University AED program,
- Liaison with AED manufacturers and suppliers,
- Receive and review requests for additional AED units and placement, in conjunction with the AED Program Medical Advisor, Assistant Vice Presidents of Environmental Health and Safety, Public Safety, and Risk Management, and their designees,
- Assist Departmental AED Program Coordinators in development and maintenance of departmental written records and establishment of protocols necessary for an effective AED program,
- Identify and communicate relevant federal and state laws and regulations,
- Conduct annual reviews of departmental AED programs,
- Approve purchase of newly authorized or replacement AED units,
- Annually and upon request, provide program updates and status reports to the ESRM committee.

The University AED Program Medical Advisor, Nara Shin, M.D., Assistant Director of Medical Services, Princeton University Health Services, provides medical consultation and guidance for the University’s AED program. Responsibilities include:

- Provide medical consultation on type(s) of AED unit(s) for use at the University that satisfy New Jersey state law,
• Provide medical consultation on ancillary medical equipment and supplies for the University’s AED program,
• Perform a medical review upon notification that an AED unit has been used at the University,
• Act as medical liaison with local emergency medical services (EMS), such as Princeton First Aid and Rescue (PFARS)

The Departmental AED Program Coordinator is responsible for the day-to-day management of her/his department’s AED program. Responsibilities include:
• Maintain a copy of this written program for Department’s AED program, which satisfies New Jersey state law and appropriate portions of ACOEM guidelines,
• Maintain a copy of manufacturer’s equipment and/or user manual for each type of AED in their inventory,
• Ensure AED units are properly maintained and tested in accordance with manufacturer’s guidelines,
• Ensure department personnel receive and maintain training in accordance with guidelines established by the University AED Program Medical Advisor,
• Ensure that adequate AED-related supplies and recommended ancillary medical equipment are kept on-hand,
• Maintain required personnel training and unit inventory, maintenance, and testing records,
• Ensure that the University AED Program Medical Advisor and AED Program Administrator are notified of any use of the department’s AED unit,
• Promptly notify the University AED Program Administrator of any maintenance issues, unit failures, or missing units by phone message or e-mail,
• Participate in annual program reviews.

Following is a list of Departmental AED Program Coordinators. This list, along with contact information and AED locations, is available on the EHS website
• Public Safety – Thomas Glospie
• UHS – Paige Harcher
• Art Museum – Julia Davila
• Firestone Library – Stanley Cheek
• CoGeneration Plant – Eric Wachtman
• Athletics Department – Richard Tronolone, Kaitlin Dobiesz, Matt Brzycki, Mitchell Reum
• Frist Campus Center – Vincent Stanley
• MacMillan Building – Bob Allen
• Physics Research Site (South America) – Geoff Gettellinger
• Chemistry Department – Stellios Maroulis, Kevin Wilkes
• School of Engineering and Applied Science – Kaitlin Lutz, William Gervasi
Criteria for Placement of AEDs and Supplies

The ACOEM recommends placement, when practical, of AEDs in sufficient workplace locations to allow initiation of resuscitation and use of the AED (the so-called “drop to shock” interval) within 5 minutes of recognized cardiac arrest.

Written requests for AED units must be submitted for approval to the University AED Program Administrator, who will consider such requests in consultation with the AED Program Medical Advisor, Assistant Vice Presidents of Environmental Health and Safety, Public Safety, and Risk Management, and their designees. Placement of AEDs and supplies will be considered by utilizing, in part, the following criteria:

- Departments or other functional areas that are staffed with trained and certified first responders, such as security officers in the Art Museum (when open on campus) or Firestone Library, or athletic trainers, or
- Locations considered to present a higher than normal risk for occupants to suffer sudden cardiac arrest, such as athletic facilities, or
- Departments or other functional areas where students, faculty, or staff are anticipated to work on or near exposed electrical circuits as part of their study, research, or job responsibilities, or
- Wherever mandated by regulatory requirements.

Departmental AED Protocols

Each AED-user department must establish appropriate written protocols and recordkeeping to address the following components:

- Identification of authorized AED and ancillary equipment,
- Location and/or assignment of AED units,
- Training and/or certification requirements for personnel,
- Procedures for
  o maintenance and replacement of AED and ancillary equipment,
  o monthly visual inspections of all AED units, in accordance with the manufacturer’s recommendations,
  o reporting and replacement of missing/stolen AED units
  o use of AEDs,
  o contacting Public Safety in the event of an emergency

Training

Departmental personnel must receive and maintain training in

- CPR/AED in accordance with the requirements of a nationally recognized organization, such as the American Heart Association (AHA) or American Red Cross,
- The process for summoning Department of Public Safety personnel at 911,
- The location(s) of AED unit(s) within their department,
- The inspection, maintenance, and operation of AED units assigned to their department,
- Reporting requirements that apply after an AED has been used to treat an individual and completion of Patient Report.
• The requirements of this written program.

**Authorized Equipment**
Only equipment recommended by the University AED Program Medical Advisor and approved by the AED Working Group may be used. The approved equipment consists of:

• Medtronic Physio-Control CRPlus or CR2 units
• Two sets of defibrillation pads compatible with these units and designed for use on adult patients. Pediatric electrodes are **not approved** and must not be kept in the department’s inventory.
• Responder kit

**Reporting Requirements and Procedures**

• A [Defibrillation Patient Report](#) must be completed on every patient to whom the AED Unit is applied, regardless of whether shocks were actually performed. All reports are to be completed by the Departmental AED Program Coordinator and the first responder immediately following the incident.

• The AED unit will be turned over to Public Safety who will provide the printout for the event. The printout will generate an "AED Event Report" that will include an Event Log, Event Summary and Test Log.

• Public Safety’s Report, the AED Event Report, and the Defibrillation Patient Report must be provided to the AED Program Medical Advisor, Nara Shin, M.D. and the University AED Program Administrator, Derek Ziegler.

• The AED Unit will be taken “out of service” until the Departmental AED Coordinator can complete an inspection of the unit and ensure it is working properly.

**Records Retention**
Departments must maintain inventory, maintenance and testing records for a period of two years (e.g., current year and immediate past year). Records that reflect the current status of employee training should be maintained until the next training cycle is complete. All other records, including those associated with AED use or post event debriefings, should be maintained indefinitely.

**Annual Program Review**
The University AED Program Administrator will annually conduct a review of all components of the University’s AED program and make appropriate recommendations for improvement or remediation. The annual review will include at least the following components:

• Review of the University AED written program,
• Review of New Jersey state laws and ACOEM and HHS guidelines related to AED use,
• Review of written communications with PFARS or other EMS,
• Discussion and review of University AED Program Medical Advisor’s responsibilities and activities,
• Discussion and review of each Departmental AED Program Coordinator’s responsibilities and activities,
• Review of all departmental records related to personnel training and AED locations, use, service, and testing,
• Discussion of program review results with the AED Working Group,
• Report to the ESRM committee.
Appendix A- Defibrillation Patient Report
Available electronically at https://veoci.com/v/p/form/8x8wa55pmezr

- Name of Victim: ____________________________
- Address of Victim: ____________________________
- Sex: Male______________Female______________
- Race: ____________________________
- Weight: _________pounds
- Date of Birth: __/___/_____= AGE

Location of Incident: ____________________________

Status of Victim Upon Arrival:
- Conscious
- Unconscious
- Semiconscious
- Oriented
- Confused
- Resp.Arrest
- Cardiac Arrest

Nature of Call:
- Cardiac Problem
- Respiratory
- Trauma / Accident
- Drowning
- Electrocution
- Poisoning

Onset of Symptoms: Date: / / Time: __________
C.P.R: Started On: / / at ________ hours; ________ sets

By whom: Lay Person
- Public Safety
- Police Dept.
- Princeton First Aid
- MICU

Defibrillation: ________ times
By whom:
- LRR
- Public Safety
- PBPD or PTPD
- Princeton First Aid
- MICU

List of Personnel on Scene
- Healthcare provider
- First Responder
- Department of Public Safety:
- Local Police Department:
- Princeton First Aid and Rescue:
- Mercer County Intensive Care Unit (MICU)