

Minnesota State Colleges & Universities
Office of the Chancellor-Fire/EMS/Safety Center

Automated External Defibrillation
Procedure
for
MN State Colleges & Universities
Campuses

Minnesota State Colleges & Universities
Office of the Chancellor
Fire/EMS/Safety Center-EMS Managers
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Automated External Defibrillator Procedure Manual

Contents:

1. <u>Scope</u>	1
2. <u>Purpose</u>	1
3. <u>Definitions</u>	1
4. <u>Automated External Defibrillator Program Overview</u>	2
5. <u>AED Team Roles & Responsibilities</u>	2
5.1 The Safety Committee.....	2
5.2 Medical Director /Physician Representative.....	2
5.3 AED Coordinator	2,3
6. <u>AED Equipment</u>	3
6.1 Description	3
6.2 Location	3
7. <u>AED Maintenance</u>	3,4,5
7.1 Reports of Damage	4
7.2 Calibration	4
7.3 Regular Checks.....	4
7.4 Monthly Check	4
7.5 After Each Use Check	4
7.6 Suggested Maintenance Schedule	5
7.7 Cleaning	5
8. <u>AED Emergency Response Plan Overview</u>	6,7
8.1 Initiation of Response	6
8.2 Responder	6
8.3 Transfer of Patient Care.....	6
8.4 Post-Event AED Procedures.....	6

8.5	Incident Reporting	6
8.6	Post Incident Critique.....	7
8.7	Debriefing Procedures	7
9.	<u>Protocol Authorization</u>	7/8
9.1	Procedure Approval	7
9.2	Procedure Revisions	7
9.3	Operational Guidelines (Good Samaritan Law).....	8
9.4	Procedure Qualifications	8

Appendices:

A.	AED Team List.....	9
B.	AED Location/Equipment Sheet	10
C.	Maintenance Checklist	11
D.	AED Flow Diagram	12
E.	AED Incident Report	13/14
F.	Post-CPR/AED Incident Critique Form	15/16
G.	Annual AED Procedure Review Signature Sheet.....	17
H.	MnSCU Office of the Chancellor Fire/EMS/Safety Center Contacts.....	18

AED Procedures

1. Scope:

This document describes the general recommended procedures for the [Minnesota State Colleges & Universities Campuses](#), relating to Automated External Defibrillator (AED) use. This AED procedure will utilize volunteer staff **and/or Emergency Response Team staff** trained in Cardio- Pulmonary Resuscitation.

2. Purpose:

The purpose of this document is to establish a consistent guideline for the application, location, maintenance, and various other components described in this procedure for campus AED use. It is the intent of the [Minnesota State Colleges & Universities](#) to have appropriate AED placement with the goal being a response time of three (3) minutes or less from the time of the incident to the first delivered shock. The intent of AED placements on campus and early response is to increase survivability in the event of a sudden cardiac arrest .

3. Definitions:

- **Automated External Defibrillator (AED):** A semi-automatic electronic medical device programmed to analyze heart rhythm, recognize rhythms that require defibrillation, and provide visual and voice prompts for the device operator to follow. The AED instructs the operator to deliver an electric shock if indicated.
- **AED Coordinator:** Oversees the use, maintenance and AED plans/procedures on campus.
- **AED Team:** Includes the AED Coordinator, Safety Committee, Medical Director and responders, which at some campuses would be Emergency Response Teams. See Appendix A for list.
- **Bystander First Aid/CPR:** Initial first aid/CPR provided by a member of the general public who is not a part of an organized medical response system.
- **Cardiopulmonary Resuscitation (CPR):** Artificial ventilation and external cardiac compression given to a victim in respiratory and/or cardiac arrest.
- **Emergency Medical System (EMS):** Professional agencies who provide medical care and/or ambulance transport. (Law enforcement, fire, rescue or ambulance services).
- **Emergency Response Team (ERT):** Some campuses have groups of designated College Campus responders who train on a regular basis and are expected to respond to medical emergencies on the college campus.
- **Publically Accessible AED (PAD)** All AEDs placed in publically accessible areas are covered under the Good Samaritan Law. If locked up, the college assumes liability.
- **Sudden Cardiac Arrest (SCA):** A significant life-threatening event when a persons' heart stops, there is a low pulse (<30 bpm) or an irregular heartbeat that does not sustain life.

AED Procedure

4. Automated External Defibrillator Procedure Overview:

The Office of the Chancellor has a Medical Director available to review this procedure regularly.

Campuses have a Safety Committee which will review AED campus specific policy and related incidences.

5. AED Team Roles and Responsibilities:

5.1 The Safety Committee will:

1. Ensure adequate resource needs are communicated to achieve AED program goals (purchasing /placement needs/training).
2. Review the AED Program annually to evaluate effectiveness on campus.

5.2 Medical Director/Physician Representative

It is the responsibility of the medical director to:

1. Provide medical expertise, oversight and consultation with AED planning.
2. Review, amend and approve this AED Procedure Manual for the campus.
3. Review all incidents with the AED Coordinator involving the use of the AED.
4. The Medical Director or his/her designee may provide post- incident debriefing support to team members involved in the incident and to review for best practices.

5.3 AED Coordinator:

It is the responsibility of the AED Coordinator, typically a health and safety professional, to have direct governance over the AED program . Which includes :

1. Communication with the Safety Committee regarding the status of the existing campus AED placement, maintenance and use.
2. Certification in American Heart Association CPR , ideally at the Instructor level with an understanding of the use of AEDs and the ability to manage communication of incidents to the Safety Committee.
3. Communication with the Medical Director and the Office of the Chancellor Fire/EMS/Safety Center EMS office, for updates in AED practice and Protocols. Assure compliance with American Heart Association current guidelines for CPR and AED use.
4. Participate in case reviews, responder training and retraining, data collection and other quality assurance activities.
5. Coordinate the maintenance of the AEDs and related response equipment.
6. Offer AED and/or CPR training to campus staff lay volunteers and ERTs.

AED Procedures

~(For those colleges with Emergency Response Teams)~

7. Assure program quality is maintained, the AED Coordinator shall ensure that all Emergency Response Team Members are current in all necessary training. This would include any updates of information or new materials.
(AHA Healthcare Provider certification is recommended for ERTs).

6. AED Equipment:

See Appendix B for the AED Location and Equipment Sheet.

6.1 Description:

The equipment provided in support of the AED program is to be used in the event of a sudden cardiac arrest at the college campus. Each AED should be maintained according to the campus policy and following the manufacturer's guidelines.

6.2 Location:

It is recommended that AEDs be placed in high traffic areas. Keep in mind the goal of a 3 minute response time, when placing AEDs around the campus. (i.e. Reception areas, auditoriums, fitness areas, cafeterias and near elevators).

Each AED location shall include the following items:

Item Description	Quantity
AED – Brand to be determined by the campus	Determine by campus
Carrying Case & Wall Mount with alarm	1 each
Spare Battery	1 spare
Defibrillation Pads	2 Sets (pediatric set also recommended)
Accessories – Scissors, alcohol wipes, razor, pocket mask, gloves	1 set per AED

All accessory equipment must remain with the AED unit and must be inspected on a regular basis, for readiness of use and integrity.

7. AED Maintenance:

See Appendix C for the Maintenance Checklist.

AED Procedures

7. AED Maintenance (continued)

- 7.1 Reports of Damage.** All scheduled AED maintenance checks shall follow the manufacturer's recommendations. Any performance discrepancies, device defects, or missing, expired, and/or damaged accessories shall be reported to the AED Program Coordinator immediately. While the maintenance required for the AED is minimal, it is important that a regular check of the AED be performed to assure readiness.
- 7.2 Calibration.** The AED requires no calibration. The AED performs regular self-tests to assure that it is ready for use.
- 7.3 Regular Checks.** Each AED shall be checked regularly to verify its readiness for use. It is not necessary to open the case; the Status Indicator can be seen through the window in the case. The Status Indicator shall be checked for a flashing black "X" symbol, designating working order. If a solid or flashing red "X" is seen, there is something wrong. The directions for troubleshooting provided in the user guide shall be followed. This must be reported to the AED Coordinator as soon as possible.
- 7.4 Monthly Check.** Each AED shall be checked monthly for readiness and any visible damage on the case or AED that may cause disruption of use. All accessories shall also be checked for presence, damage or defects, and expiration dates. Any defective accessories shall be replaced immediately and reported to the AED Coordinator for restocking purposes. If the AED does not have a working battery available, it shall be taken out of service until the battery can be replaced. If the AED is inoperable or has visible defects that could potentially impair its operation, the AED shall be given to the AED Coordinator for dispensation.
- 7.5 After Each Use Check.** The AED shall be checked after each use prior to returning the unit to service. This check shall include:
- Visible inspection of the AED and its' case for outward damage
 - Replacement of all materials used during the event.
 - EMS may request removal of the data card for post incident review and data collection. Replacement of the data card and the data card tray in the device may then be necessary.
 - Return of the AED to it's designated location, in working order.

AED Procedures

7. AED Maintenance continued

7.6 Maintenance schedule to assist campuses.

Daily	Monthly	After Each Use	Maintenance Task
X		X	Check the Status Indicator
	X	X	Check supplies, accessories, and spares for damage and expiration dating.
		X	Check the operation of the AED by removing and reinstalling the battery and running the battery insertion self-test. Note: Perform also when replacing pads.
	X	X	Check the outside of the AED and the connector socket for cracks or other signs of damage.
		X	Check the data card if one has been used.
		X	Check the outside of the AED and the connector socket for signs of dirt or contamination.
		X	Check the connector socket to make sure that defibrillation pads are disconnected from the AED when not in use.
		X	Check to make sure the data card tray is installed, even if a data card is not being used.

7.7 **Cleaning.** When necessary, the AED shall be cleaned using the manufacturer's recommended cleaning agents.

AED Procedures

8. AED Emergency Response Plan Overview:

- 8.1 Initiation of Response.** Any student, staff or visitor who recognizes a medical emergency shall:
- Call out for help. Check scene safety. Make sure 911 is called if a victim is unresponsive.
 - Campus Security or Emergency Response Team should be notified, and they bring the AED, if not already on the scene.
- 8.2 Responder.** Comply with OSHA Bloodborne Pathogen standards (gloves/CPR pocket mask). Follow CPR standard assessment and rescue steps. Apply the AED as soon as it comes on the scene. Continue until EMS arrives. If alone, make call to 911 then return to the victim.
- 8.3 Transfer of Patient Care.** Once EMS arrives the ERT/ or caregiver transfers care to the EMS Agency. The EMS crew may request the following information:
- Name of the victim and responders
 - Brief description of what happened
 - Treatment given and time (CPR started/when AED applied)
 - Type of emergency, time and location found and any other supportive information
- 8.4 Post-Event AED Procedures.** After transferring patient care to EMS, the ERT or AED Coordinator shall conduct the following post-event equipment checks:
- **Equipment check of all items used during the event**
 - **Replacement of necessary supplies used**
 - **Biohazard clean up and disposal --may be sent with EMS**
 - **Placing AED back to its designated location**
 - **Optional: Removal of data card for data collection, if requested . This card should be secured as confidential medical information .**
- 8.5 Incident Reporting.**
- A campus **incident report** must be completed, by a staff most close to the incident. The EMS crew may request of copy of this report. The AED Coordinator is responsible for delivering this information to the EMS agency to attach to the patient record.

AED Procedure

8. Emergency Response Plan Overview (cont.)

8.6 A Post-Incident Critique form (Appendix F), shall be completed at the conclusion of each drill or each real SCA event to evaluate the response model and debrief the AED Team. The completed form shall be discussed in the debriefing meeting following the drill or event. Further discussion shall be conducted with the Medical Director and/or Safety Committee as necessary. A copy of all reports must be sent to the campus Safety Committee via the AED Coordinator and the Office of the Chancellor- Fire/EMS/Safety Center, EMS Manager.

8.7 **Debriefing Procedures.**

The Responder. As soon as possible post-event, a debriefing shall be conducted to evaluate the responders actions and allow for evaluation of the need for any additional support of the responders involved. This debriefing can be conducted on an informal basis with the team or with medical professionals, medical director or the Safety Committee.

9. Procedure Authorization

9.1 **Procedure Approval.**

The AED Coordinator and the Medical Director make changes in the AED Procedure.

Their approval is evidenced by their signature on the signature page.

The physician signed procedure and AED protocols are also evidence of the AED team working under the Medical Director's guidance.

9.2 **Procedure Revisions.**

The AED Coordinator and the Medical Director shall be the only individuals authorized to revise the campus version of the AED Procedure.

The campus Safety Committee will review this AED Procedure on an annual basis.

AED Procedure

9. Procedure Authorization (continued)

9.3 Operational Guidelines. The ERT, AED Team or lay rescuers shall perform only to the level of their training with the guidance provided by these protocols. The use of the publically accessible AED by the lay rescuer is covered under the Good Samaritan Law in MN. The individual college campus provides the liability coverage for responders receiving compensation from the college to render medical care on campus as indicated in their job description. The [Minnesota State Colleges & Universities](#) does not certify or provide medical liability coverage for any ERT or AED Team member practicing off of the campus property.

The Minnesota Good Samaritan Law for Publicly Access AED in section (e) “For purposes of this section, “emergency care” includes providing emergency medical care by using or providing an automatic external defibrillator, unless the person on whom the device is to be used objects; or unless the person is rendering this care during the course of regular employment, the person is receiving or expecting to receive compensation for rendering this care, and usual and regular duties of the person include the provision of emergency care.....”

9.4 Qualifications. It is recommended that all AED Coordinators and ERT teams:

- Have current certification in the American Heart Association Healthcare Provider or Heartsaver CPR/AED courses and ideally also the AHA First Aid Certification course.
- Membership with the MnSCU – Multi-Regional Training Center, if an instructor.

Minnesota State Colleges & Universities –College/University:

Medical Director -	AED Coordinator -
Phone # -	Phone # -
Pager # -	Pager # -
Cell Phone -	Cell Phone -
Location -	Location -
On Campus Responders/ERT -	
Name	Name
Phone #	Phone #
Radio #	Radio #
Cell Phone #	Cell Phone #
Name	Name
Phone #	Phone #
Radio #	Radio #
Cell Phone#	Cell Phone#
Name	Name
Phone #	Phone #
Radio #	Radio #
Cell Phone #	Cell Phone #
Name	Name
Phone #	Phone #
Radio #	Radio #
Cell Phone #	Phone #

Appendix B:

Insert College Campus Map which indicates location of AEDs on Campus.

Appendix C

AED Maintenance Checklist – Minnesota State Colleges & Universities

AED Model Number:	AED Serial Number:
AED Location:	

Date							
Scheduled Frequency							

AED Clean, no dirt or contamination; no signs of damage							
Supplies							
2 sets of pads							
Towel, scissors, razor							
Spare Battery							
Data Cards							
Status Indicator							
Inspected By: (Initials)							
Remarks Problems Corrective Actions							

Appendix D

Automated External Defibrillator – AED – Flow Diagram

Immediately Upon Arrival:

- Access the scene for safety **remove victim from standing water, apply your gloves**
- Verify Sudden Cardiac Arrest
 1. Verify unconsciousness **shake victim, ask “are you ok?”**
 2. Activate the emergency response **call 911 or delegate**
 3. Open Airway **head tilt chin lift**
 4. Verify no Breathing **look, listen and feel for breath sounds**
 5. Deliver two (2) rescue breaths **with a pocket mask or bag-valve mask**
 If no masks, skip this step.
 6. (Optional for Healthcare Provider level of training): Verify no carotid pulse

After Verification of Sudden Cardiac Arrest:

- Perform CPR if there is a delay in obtaining or using the AED otherwise use the AED once it arrives for a witnessed arrest.
 For an unwitnessed arrest, perform 2 minutes of CPR then...
- Turn on the AED
- Apply Defibrillation Pads
- Follow Verbal and Visual prompts

Allow the AED to Analyze Heart Rhythm (Automatic)

Shock Advised

Clear patient verbally and
 Visually prior to shock
 Delivery.
 Deliver Shock

No Shock Advised

Check pulse
 Absent? Perform CPR
 Present? Support Airway
 and Breathing

Defibrillate once
 at the prescribed joules.

Continue until AED prompts “Do not
 touch the patient ...” or external emergency
 medical services arrive and instructs you to stop.

Check breathing

Leave the AED on the patient until instructed
 to remove the device by EMS personnel or

Absent? Perform CPR for one
 (2) minutes.

Higher medical authority.

Continue sequences of one (1) shock then two (2) minutes of CPR , until a “no shock”
 prompt or external EMS response arrives and instructs you to stop.

Minnesota State Colleges & Universities – CPR/AED Incident Report

Patient and Incident Information:

Campus: _____ Date: _____

Patient Name: _____

Patient Date of Birth: ___/___/___ Patient Age: ___ Patient Sex (M/F): ___

Incident Time: _____ Location: _____

Event History:

Patient activity prior to event: _____

Patient complaints prior to event: _____

Was the entire event witnessed? ___ No ___ Yes, at _____ (time)

Was CPR started? ___ No ___ Yes, at _____ (time)

If witnessed by whom: _____ (Rescuer) at _____(time)

Assessment and Treatment:

~Were airway & breathing & assessed: ___ No ___ Yes

If Yes by: _____(Rescuer) at _____Time

~Was CPR Initiated? ___ Yes ___ No

If Yes by: _____(Rescuer) at _____Time

~Was Shock #1 delivered? ___ Yes ___ No

If Yes by: _____(Rescuer) at _____Time

~Was Shock #2 delivered? ___ Yes ___ No (Rescuer) at _____Time

If Yes by: _____(Rescuer) at _____Time

~Was Shock #3 delivered? ___ Yes ___ No

If Yes by: _____(Rescuer) at _____Time

Was the AED Affective? ___ Yes ___ No at _____Time

Appendix E

Was respiration regained? ___Yes ___No at _____Time

Was consciousness regained? ___Yes ___No at _____Time

Was patient transferred to EMS? ___Yes ___No at _____Time

Comments:

Report Completed By: _____ Date: _____

Other Team Members Involved : _____,

_____,

_____.

Note: Use the back of this form for additional comments.

A copy of this report must be sent to campus Safety Committee, the AED Coordinator and The Minnesota State Colleges & Universities –Fire/EMS/Safety Center (attn: EMS Manager).

Appendix F

Minnesota State Colleges & Universities – Post CPR/AED Incident Critique Form:

Patient and Incident Data:

Patient Name: _____ Date of Incident: _____

Patient Date of Birth: ____/____/____ Patient Age: _____ Patient Sex: M/F _____

Incident Location: _____

Internal Notification:

How was the Team alerted? _____

When was the Team alerted (date/time)? _____

When was the Team Dispatched? _____

Who initiated 9-1-1 call? _____

When was 9-1-1 called (time)? _____

EMS Arrival: _____

SCA Event Report:

Collapse/recognition (time): _____

Patient Unresponsive: ___Yes ___No

Rescue Breathing Started: ___Yes ___No

Bystander CPR started (time): _____

Optional: ERT Team Arrival (time): _____

AED Arrival (time): _____

AED Turned On (time): _____

Shock Advised? Y/N _____

First Shock Delivered (time): _____

Total Number of Shocks Delivered: _____

Appendix F

Return of Pulse: ___Yes ___No Time:_____

Return of Respiration: ___Yes ___No Time:_____

Patient Condition at EMS Hand-off: _____

Care Given By_____Ambulance Service

Patient Transported at (time): _____

Patient Transported to (time): _____

Patient Outcome if known:_____

Report Completed By: _____Date: _____

Responders Present:

_____, _____,
_____, _____,
_____, _____.

Appendix G

ANNUAL AED PROCEDURE REVIEW

This Document was reviewed and approved by:

College Medical Director: _____ Date: _____

Campus AED Coordinator: _____ Date: _____

College Medical Director: _____ Date: _____

Campus AED Coordinator: _____ Date: _____

College Medical Director: _____ Date: _____

Campus AED Coordinator: _____ Date: _____

College Medical Director: _____ Date: _____

Campus AED Coordinator: _____ Date: _____

College Medical Director: _____ Date: _____

Campus AED Coordinator: _____ Date: _____

System contact for AED/CPR Campus Procedure Gayle Steiner, RN
Minnesota State Colleges & Universities-Office of the Chancellor
Wells Fargo Place
Fire/EMS/Safety Center--
30 7th Street East, Suite 350
St. Paul, MN 55101-7804
gayle.steiner@so.mnscu.edu
1-800-311-3143 Toll Free
651-649-5944 Training Center

The above procedure has been approved by _____(College Name)
Medical Director and/or Safety Committee Chair.

Signature: _____ Date _____
Medical Director or Safety Committee Chair

AED Coordinator – System Office
Gayle Steiner, RN/AHA Training Center Manager