

Automatic External Defibrillator (AED) Guidelines for Schools

The purpose of this document is to establish guidelines for the placement, care and use of an Automatic External Defibrillator (AED) located in some school division buildings. The information in this document is intended to provide support towards development of policies for school divisions that choose to have an AED on site.

AED's are portable devices used to induce electrical stimulation to the heart muscle in the event of a potential cardiac arrest. Early access defibrillation has been recognized as a significant factor in survival from incidents of sudden cardiac arrest. Adequate preparation for responding to a life-threatening emergency can save lives.

Use of an AED in the school setting

The availability and use of AED's for emergency situations has increased significantly in the past ten years. AED's are recommended but not required in all school buildings. A prescription must be obtained from a medical doctor ordering the availability and use of the AED in a school building. The building administrator or nurse can discuss this requirement with the school division medical director or company from which the device is purchased. If a school division has an AED, training and use of the AED should be included in the school medical emergency response plan, and a school division policy should be developed.

According to the American Heart Association, AED programs should have the following components:

1. Medical/healthcare provider oversight
2. Appropriate training of anticipated rescuers in Cardiopulmonary Resuscitation (CPR) and use of the AED
3. Coordination with the Emergency Medical System (EMS)
4. Appropriate device maintenance
5. Ongoing quality improvement

School protocols should be written and posted in appropriate areas for use of the AED. Administrators, teachers, and staff should practice and evaluate response to sudden cardiac arrest (SCA) using the AED.

Storage and Accessibility

1. Assess each potential building for the optimal location for storage of the AED. The location should be readily identified and secure, yet easily accessible for adults.
2. Staff should be notified of the location and how to access the AED equipment in an emergency.
3. Access and use of the AED by contracted or community organization personnel should be addressed in the school division policy.
4. A designated employee should be responsible for periodic maintenance of the AED.

AED Response Protocol

Employee training should be consistent with CPR/ First Aid training certifications provided by the American Heart Association, Red Cross or other authorized agencies. Employees should also be aware that they are not liable for rendering such emergency care, as stated in the Code of Virginia.

Any person having attended and successfully completed a course in cardiopulmonary resuscitation, which has been approved by the State Board of Health, who, in good faith and without compensation, renders or administers cardiopulmonary resuscitation, cardiac defibrillation, including, but not limited to, the use of an automated external defibrillator, or other life-sustaining or resuscitative treatments or technologies which have been approved by the State Board of Health regulations to any sick or injured person shall be deemed qualified to administer such emergency treatments and procedures; and such individual shall not be liable for acts or omissions resulting from the rendering of such emergency resuscitative treatments or procedures.

(COV) §8.01- 225 (A)(6)

The following AED response protocol has been developed as a guideline for school systems to incorporate into an AED policy. The protocol should be reviewed on an annual basis and updated as needed.

1. Conduct an initial assessment of the patient and environment.
 - Assess the scene for safety.
 - Use standard (universal) precautions.
 - Assess patient for unresponsiveness.

- If unresponsive, activate EMS and in-house emergency plan per school protocol or policy.
 - Call for an AED.
2. Assess breathing.
 - Open the airway.
 - Look, listen and feel for breathing.
 - If breathing is absent, deliver two rescue breaths.
 3. Assess circulation.
 - If signs of circulation are absent, provide CPR if trained. Continue CPR until the AED arrives.
 4. Begin treatment with the AED.
 - As soon as the AED is available, turn on the AED and follow prompts.
 - Remove all clothing from the chest area. Dry the chest if it is wet.
 - Apply defibrillation pads. Look at the symbols on the AED pads and place pads as shown on the illustrations. Ensure pads are making good contact with the patient's chest. Do not place pad over the nipple, medication patches, or visible implant devices.
 - Make sure the patient area is clear, and then deliver a shock to the patient when advised by the AED.
 - When advised by the AED, initiate/resume CPR starting with compressions.
 - Continue to perform CPR until otherwise prompted by the AED or EMS personnel.
 5. Actions to take when the EMS arrives.

Responders working on the victim should document and communicate important information to the EMS provider, such as:

- Victim's name
- Known medical problems, allergies or medical history
- Time the victim was found, condition and vital signs if obtained
- Type and time of intervention(s) provided, to include the number of shocks delivered and length of time the defibrillator was used
- Patient response to intervention(s) and information from the AED screen

Post-incident Procedure

1. An employee involved should notify the building administrator or School Nurse Coordinator as soon as possible.

2. A designated employee should check the AED, restock the supplies immediately after the event and perform the after-patient-use maintenance on the AED.
3. The School Nurse Coordinator or a designated employee should conduct an employee incident debriefing and document as indicated by school policy.

Periodic Maintenance- scheduled and after use

1. Inspect the exterior and connector for dirt or contamination.
2. Check supplies, accessories and spares for expiration dates and damage.
3. Check operation of the AED by removing and reinstalling the battery and running a battery insertion test.

Conclusion

School divisions are not required to provide AED's. They are a recommended piece of equipment for the purpose of aiding the response to an emergency situation for a victim in cardiac arrest. School divisions interested in purchasing an AED should look to various funding sources, such as grants, private donations, or Parent-Teacher Associations. In the planning process, funding consideration should be given to provide for on-going training, maintenance and supplies.

References

Automatic External Defibrillation Implementation Guide. (2005). American Heart Association.

AED Response Protocol and Flow Sheet, Spotsylvania County Public Schools, August 30, 2007 (used by permission).

Emergency Guidelines for Schools 3rd Edition (2007). American Academy of Pediatrics.

Henrico County Public Schools AED and CPR Medical Emergency Response Plan for Schools, April 12, 2005 (used by permission).

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Virginia Department of Health. (2003). *First Aid Guide for School Emergencies.*

