

File: A8

## **SCHOOL-BASED PUBLIC ACCESS DEFIBRILLATION POLICY**

It is the Chicopee Public Schools intention to provide the best resources available to assist an individual in cardiac arrest providing that there is the necessary equipment and properly trained Automatic External Defibrillator (AED) providers available at the time of the cardiac arrest.

This Defibrillator Policy has been prepared in accordance with requirements of the Massachusetts Department of Public Health (MDPH) (Title XVI Chapter 112, 12V, 12VI1/2), Baystate Medical Center, and the Chicopee Fire Department. This Policy and applicable standard operating guidelines and appendixes shall conform to those rules and regulations utilized by the agencies referenced above.

### **Purpose**

The purpose of this Policy is to establish and formalize the standard operating guidelines that are required by the MDPH in order for the Chicopee Public Schools Health Services to have, maintain and utilize an AED.

### **Applicability**

This Policy and applicable standard operating guidelines shall be developed, implemented, and maintained by the Chicopee Public Schools Health Services, the Safe Schools Committee and the Chicopee School Committee. The AED will be available to the faculty, staff, and students during teacher contracted work hours in the school building in case of cardiac arrest. It will also be available after hours only if there is a certified provider on site.

The Superintendent of Schools or his/her designee(s) shall be responsible for developing, implementing, and maintaining the standard operating guidelines necessary to support this Policy.

Legal Refs; Title XVI Chapter 112, 12V, 12VI1/2)

1st reading: Reg SC Mtg 6/15/2011

2nd reading: Reg SC Mtg 7/6/2011

*\*Please refer to Standard Operating Guidelines for the AED Program (File: A8.1).*

## STANDARD OPERATING GUIDELINES FOR THE AED PROGRAM

### Chain of Survival

1. The “Chain of Survival” is the four-step procedure that is to be followed for any incident that requires an ambulance, including a heart attack and cardiac arrest. The “Chain of Survival” includes;
  - a. Early notification of the EMS system by dialing 911 in the school building
  - b. Early intervention of Cardiopulmonary Resuscitation (CPR) by a school employee, bystander or police officer
  - c. Early defibrillation by a trained AED provider
  - d. Early arrival of Advanced Cardiac Life Support (ACLS) Paramedic/Ambulance
2. Chicopee Public Schools has embarked upon a program of training faculty, staff and students in CPR/AED. By providing this training we hope to increase early recognition of a heart attack or another medical emergency and to take action immediately by summoning advanced medical care as soon as it is warranted. In addition, through CPR training, Chicopee Public Schools hopes to initiate CPR at the very onset of a cardiac arrest, providing the person the best chance of support until the arrival of the defibrillator and the EMS system provider.

### Defibrillation Location

1. The Chicopee Public Schools has one defibrillator at Chicopee High School. During school hours and when not in use the defibrillator will be located in the nurse’s office in the labeled unlocked cabinet.
2. When the defibrillator is used outside of contracted school hours it must be kept on or with the person who is accountable for it. It must not be exposed to extreme temperature changes and should not travel in the trunk of a car, but inside the car on the seat. It should never be left in a car due to the hot and cold temperature changes.

### Definitions

Cardiac Arrest: a condition that results when the heart stops beating. It is caused by life threatening abnormalities in the heart’s electrical system. These abnormalities are most often referred to as arrhythmias.

Ventricular Fibrillation (VFib): is the most common arrhythmia. With this condition, the heart starts beating so uncontrollably that it is unable to pump blood to the rest of the body or to the brain. This state of totally disorganized electrical activity produces a quivering of the ventricles. Because the pumping of the heart in this situation is inadequate, there is no detectable pulse.

Ventricular Tachycardia (VTach): tachycardia means a fast heart rate. Vtach is a very rapid contraction of the ventricles that prohibits the heart from pumping blood properly, consequently this may result in a pulse not being detected with this patient either.

Cardiopulmonary resuscitation (CPR): is the administration of chest compressions and rescue breathing to circulate oxygenated blood through the body.

Comfort Care/Do not Resuscitate (CC/DNR): an order written by a physician that states when a person's breathing and heartbeat have stopped, he/she shall NOT be resuscitated.

Defibrillation: is the definitive treatment used for person in cardiac arrest (ventricular fibrillation/pulse less ventricular tachycardia). It is a brief, powerful, electrical shock applied to a person's chest, interrupting the abnormal heartbeat and allowing the heart's normal rhythm to regain control.

Defibrillator: the machine used to perform the function of defibrillation.

Department: refers to the Department of Public Health for the Commonwealth of Massachusetts (Title XVI, Chapter 112m 12V, 12V1/2).

First Responder: a member of the police or fire department qualified at the first responder level or its equivalent.

Medical control: the physician responsible for the Emergency Department operation at Baystate Medical Center.

Predetermined AED Provider: the person who is CPR/AED certified and has a copy of his/her certification on record with the Chicopee Public Schools who holds accountability for the retrieval, use, and return of the AED when it is used. This person is responsible for being familiar with the Chicopee Public Schools' AED policies and procedures and the Heartstart FR2+. When the AED is removed and returned to the nurse's office this person must sign on the log or notify the school nurse that he/she has it. This individual is expected to attend Chicopee Public Schools' AED Program training and skills reviews.

Paramedic: the highest level Emergency Medical Technician (EMT) in the Commonwealth of Massachusetts. This person can administer medication and provide the most advanced medical treatment available outside the hospital. The AED provider is required to request a paramedic level staffed ambulance for all cardiac patients and AED required events.

### **Dispatch Protocols**

1. The AED is located in the school nurse's office.
2. In the event that the nurse is notified or determines one of the medical emergencies listed below she/or her designee shall automatically dispatch 911, regardless of her assignment at the time (i.e. classroom teaching).
  - a. Cardiac Arrest
  - b. Cardiac Distress
  - c. Cardiac History
  - d. Chest Pain
  - e. Unresponsive/Unknown
  - f. Respiratory Arrest

g. Respiratory Distress of Cardiac Nature

**During school hours:** The Main Office functions as the central command center for emergencies requiring an AED. The medical emergency team includes: the School Nurse, Resource Officer, Head Custodian, and Vice-Principal. The primary methods of emergency communication are walkie talkies and telephones.

1. Anyone alone with an unresponsive victim should:
  - a. contact the Main Office and the School Nurse by the fastest method (telephone, walkie talkie, or in person)
  - b. request the AED from the school nurse's office
2. If not alone, remain with the victim and assign a person to contact the Main Office and the School Nurse.
3. Main Office
  - a. Calls medical emergency team on the telephone "all call" announcement system saying, "Code Red" and location to dispatch all team members to retrieve the AED and report to the scene (e.g. "Code Red" to the library immediately") repeats the announcement 3 times.
  - b. Calls 911 to activate EMS system and determines specific location to meet EMS (answers all EMS dispatch questions and hangs up last)
  - c. Sends custodian to meet EMS at specified location and escorts them to scene.
  - d. Arranges classroom coverage as needed
  - e. Notifies Principal
4. Medical emergency team members
  - a. Report immediately to the scene
  - b. Retrieve AED en route and bring to scene
  - c. First team member to arrive supervises scene until school nurse or EMS arrives, once at scene, school nurse or his/her designee supervises until EMS arrives.
  - d. Administer crowd control at scene.

All students and bystanders (other than responders involved in emergency) en route should proceed to next class; all others should remain in classrooms.

Outside school hours: **to be developed**

**Arrival on Scene**

1. Bring all necessary equipment, including:
  - a. First Aid Box
  - b. Defibrillator
    - i. Use universal/standard precautions/body substance isolation
    - ii. Determine unresponsiveness, absence of breath and pulse
    - iii. Consider all potential non-cardiac causes of cardiac arrest (electrical shock, overdose or trauma)
    - iv. Initiate CPR and assist with ventilations (if awaiting defibrillation) IF defibrillator is already on scene shock is priority if age appropriate.

- v. Make sure that the ambulance is in route to the school and provide all necessary, additional information regarding the person's condition and care.
2. If the nurse arrives on the scene of an incident for which an ambulance has not yet been requested, she should follow the guidelines referenced above. The assessment and rapid defibrillation of the patient shall take priority over the request/dispatch of an ambulance, unless the nurse can/did delegate someone else to call 911. Ideally the two should be happening simultaneously.

### **Patient Preparation for Defibrillation**

1. After determining that the person warrants CPR and DEFIBRILLATION , the nurse should...  
Prepare the chest to receive the electrodes:
  - \*If chest is wet...DRY IT
  - \*If chest is hairy...SHAVE IT
  - \*If heart device implanted...WORK AROUND IT
  - \*If jewelry is in place...REMOVE IT (If necessary)
  - \*If medication on chest(patch)...REMOVE IT
2. Turn defibrillator on  
Follow the defibrillator's verbal instructions
3. Attach defibrillator electrodes to patient while verbalizing procedures
  - a. \*Place anterior electrode on patient's upper torso to the right of his/her sternum and below the right clavicle.
  - b. \*Place the (heart) electrode to the patient's left nipple. Firmly press both electrodes on the chest to eliminate air pockets between the gel surface and the skin.
4. ANALYZE the rhythm status.
5. Determine if Defibrillation (SHOCK) is indicated or not.
6. Verify ambulance intercept as soon as possible.
7. If defibrillation is unsuccessful continue following procedure for CPR and AED use.
8. When paramedics arrive turn victim over to their care.

### **Responsibility for Operation and Placement**

1. Upon the school nurse's daily arrival at work, during the contracted school year, she will check the defibrillator in her building. It will be that nurse's responsibility to verify that the unit is in the proper location, that it has all of the appropriate equipment (battery, mask, case, emergency pack inside) and that it is ready for use. If it is not the nurse must contact the Nursing Supervisor or her designee immediately.
2. The Heartstart FR2+ defibrillator's functioning will be checked daily by the school nurse.
3. After completing the inspection of the AED, the school nurse shall make note in an AED log indicating that the unit has been inspected and that it was found to be "In-service" or "Out-of-service". The same shall be held true for a predetermined person taking the AED out of the nurse's office. That person must sign his/her name and determine its service status upon removing it from the nurse's office and upon returning it.
4. The Site Leader (School Nurse) shall be responsible for the following:

- a. The daily AED service checks during the school nurse's contracted school year and document, in accordance with maintenance procedures
  - b. The prompt replacement of equipment and supplies
  - c. The repair and service of the Heartstart FR2+
  - d. All record keeping for the equipment during the contracted school year.
  - e. Training records
    - i. CPR
    - ii. AED
    - iii. Periodic Skills Evaluations
    - iv. A list of predetermined and properly certified AED providers approved by the Nursing Supervisor and/or the AED Medical Director
  - f. Coordinate and document site-specific drills and refresher training
  - g. Coordinate documentation of the use of the AED
    - a. Requests for deployment of an AED
    - b. Attachment of defibrillator pads to a patient during contracted school hours
  - h. The memorandum of understanding with designated agencies and the policies and procedures which are included
5. The Nursing Supervisor or her designee shall be responsible for:
- a. Providing/scheduling opportunities for CPR/AED training recertification for all school nurses.
  - b. Assisting the school district and school committee with proper in-house training of anyone interested, implementing policy and procedures, and providing consultation on emergency issues and evaluation after a cardiac event.
  - c. Acting as the primary liaison among the AED program participants (e.g. Medical Director, school Site Leaders, EMS, etc.)
6. The AED Site Advisory Team at each school participating in the AED program is a group which will include the Site Leader, the Head Custodian, the Resource Officer and school administration, that will :
- a. Develop site specific policies/procedures and training programs in consultation with the Medical Director and Nursing Supervisor
  - b. Support implementation of the AED program at the site
  - c. Support consideration of, planning for and inclusion of CPR/AED training in the student curriculum

### **Contraindications for Defibrillator Use**

1. Person with a PULSE or SIGNS OF CIRCULATION  
Use caution with:
2. CHILD UNDER AGE 8 (1-7 YEAR OLD) or LESS THAN 55lbs.-MUST USE PEDIATRIC PADS.
3. CHILD AGE 8 OR OVER-Must use ADULT Electrode Pads
  - a. Remember to do one minute of CPR for CHILD (age 7 and under) and then use AED UNLESS the child has a known/suspected cardiac condition OR CHILD was "playing with electricity" and appears to be in cardiac arrest due to electrocution. If this is the case, AED use comes DIRECTLY after checking for Signs of Circulation/Pulse if AED is immediately available.

Medical Direction if needed:

Baystate Medical Center Emergency Department/MD on duty: 794-3233.

**DO NOT START CPR or INITIATE DEFIBRILLATION IF:**

1. Person has a pulse.
2. There is a valid CC/DNR on the person in compliance with MDPH CC/DNR protocols.
3. One of the following conclusive signs of death are present;
  - a. Body decompartmentalization/decapitation(injuries incompatible with life)
  - b. Body putrification (i.e. maggots)
  - c. Full body rigor with dependent lividity in the absence of hypothermia.