



DIVISION OF PUBLIC HEALTH

Jim Doyle
Governor

1 WEST WILSON STREET
P O BOX 2659
MADISON WI 53701-2659

Helene Nelson
Secretary

State of Wisconsin
Department of Health and Family Services

608-266-1251
FAX: 608-267-2832
dhfs.wisconsin.gov

Numbered Memo Series 06-11
December 2006

To: First Responder and Ambulance Service Providers
EMS Training Centers
Service Medical Directors

From: Dan Williams, Chief
Wisconsin Emergency Medical Services Systems Section
Bureau of Local Health Support and EMS

Re: Semi-Automated External Defibrillation (AED) Based on 2005 Guidelines

As promised in our Numbered Memo Series 06-08 (October 2006) regarding *Recommendations for 2005 AHA AED Guideline Transition by Wisconsin EMS Programs*, we have developed the attached sample guideline for Semi-Automatic External Defibrillation using the 2005 AHA guidelines. This guideline has been reviewed and approved by the State EMS Medical Director and the EMS Physician Advisory Committee members. Please feel free to use it as part of your services' guidelines and/or protocols.

Should you have any questions or concerns, please contact your appropriate Program Coordinator.

Wisconsin Sample Guideline

Semi-Automated External Defibrillation (AED) Based on 2005 Guidelines

Service Provider: _____ License No: _____

I. AED Use General Considerations

- A. Take body substance isolation precautions en route to the scene
- B. Initiate immediate ALS backup as appropriate
- C. Preparation for transport of patient should begin immediately as staffing allows.
- D. The patient should be transported when one of the following has occurred:
 - 1. The patient regains a pulse
 - 2. Two (2) shocks have been delivered by EMS staff
 - 3. Per medical control recommendation
- E. All contact with the patient must be avoided during analysis of rhythm and delivery of shock(s)
- F. **Do not apply AED in children under 1 year of age.** Begin CPR and transport. Contact medical control for further instructions.
- G. A pediatric capable AED is preferred for age 1-8 years. However, a standard AED may be used if it is the only one available.
- H. 2005 AHA guidelines do not restrict AED use in a moving vehicle.
- I. It is acceptable to continue using the public access defibrillator (PAD) if it has already been applied so as not to interrupt CPR to apply EMS AED.

II. AED Application by Age

- A. Age 1 through 8 years
 - 1. Perform CPR for 5 cycles (about 2 minutes) before undertaking other actions
 - 2. Apply AED, using a pediatric capable AED if available
 - a. If PAD is the only pediatric capable AED available, continue using it
 - b. If only standard AED available, it may be applied. It is recommended to place the patches in anterior-posterior positions to avoid arcing.
- B. Age > 8 years
 - 1. Apply standard AED

III. Resuscitation (EMS Provider)

- A. Arrive on scene and perform initial assessment
- B. Stop CPR if in progress
- C. Verify pulselessness and apnea
- D. If no CPR (or poor quality CPR) performed prior to your arrival and response interval from time of collapse is:
 - 1. Less than 5 minutes, the immediate priority is defibrillation
 - 2. More than 5 minutes, perform two (2) minutes of CPR prior to defibrillation.
- E. If three or more shocks have been given by PAD and patient remains pulseless, consider one additional shock if indicated and begin immediate transport.
- F. AED Activation and Use
 - 1. Attach and activate defibrillator
 - 2. Stop CPR
 - 3. Clear patient
 - 4. Initiate analysis of rhythm
 - a. If AED advises shock:
 - i. Deliver shock
 - ii. Immediately begin CPR and prepare for immediate transport
 - 1. After 2 minutes, stop CPR assess ABC's
 - 2. If no return of carotid pulse, allow AED to re-analyze
 - 3. If shock advised, deliver shock and perform two minutes of CPR
 - 4. The sequence of two (2) minutes of CPR followed by one shock may be repeated a maximum of three times.
 - 5. After two shocks no delay should be made remaining on the scene. This may require the third shock being performed in the ambulance.

- iii. If after shock patient exhibits signs of life (spontaneous respirations, purposeful motor activity) stop CPR and assess ABC's.
 1. If breathing adequately, give high concentration oxygen by non re-breather mask and transport promptly
 2. If not breathing adequately, artificially ventilate with high concentration oxygen, transport promptly (consider insertion of advanced airway here).
- b. If AED advises no shock:
 - i. Resume CPR and begin immediate transport
 - ii. After two minutes of CPR allow re-analysis
 1. If shock advised, deliver shock.
 2. If no shock advised for the second time, resume CPR and begin immediate transport.
5. Consider insertion of an advanced airway when appropriate
 - a. Airway should be inserted while chest compressions continue
 - b. Once airway is in place, ventilations should be made at the rate of 8-10 per minute and CPR should be performed for two minutes between re-analyzing or pulse check.
6. If at any time during transport pulses are lost, restart protocol.
7. Medical Control should be contacted as soon as possible to discuss further treatment option including termination of resuscitation.
8. If ambulance not at scene continue the sequence of two minutes CPR followed by analysis for as long as shockable rhythm persists or until transport becomes possible.

Document

- Clinical assessment
- Whether arrest was witnessed or un-witnessed
- Presence of by-stander CPR
- Defibrillator use including PAD
- Resuscitative measures and response
- Communication with medical control

Approved by: _____ Medical Director (Print)
 _____ Medical Director (Signature)
 _____ Date