

**The University of Texas at Tyler**  
**Automatic External Defibrillator Program**

Medical Director:

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Dudley Goulden, M.D., FACC,  
Professor of Medicine, Division of Cardiology  
The University of Texas Health Center Tyler

Date

AED Program Coordinator:

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Barbara O'Keeffe, Director, Environmental Health & Safety

Date

# **AUTOMATIC EXTERNAL DEFIBRILLATOR (AED) PROGRAM**

## ***PURPOSE:***

The University of Texas at Tyler has established an Automated External Defibrillator (AED) Response Program to will enable targeted responders in the University setting to deliver early defibrillation to victims in the first critical moments after a sudden cardiac arrest. Responders' use of the AED should not replace the care provided by emergency medical services (EMS) providers, but it is meant to provide a lifesaving bridge during the first few critical minutes it takes for advanced life support providers to arrive. Upon arrival of the EMS providers, patient care will be transferred to the EMS personnel.

The Program includes: stationing an AED within buildings on the UT Tyler campus; having a mobile AED in a designated police vehicle for campus and off-site activities; specialized training for individuals (responders) in CPR and AED operation; and, inspection and maintenance procedures for the AED devices. The UT Tyler AED program operates under the medical direction of Dudley Goulden, M.D., FACC, Professor of Medicine, Division of Cardiology, The University of Texas Health Center at Tyler. The AED Coordinator is Barbara O'Keeffe, Director of Environmental Health & Safety, The University of Texas at Tyler.

## ***What are AEDs and how do they work?***

Automated External Defibrillators (AEDs) are a proven method of reducing morbidity and mortality from acute myocardial infarction (heart attack). An AED is a device that attaches to a victim's chest to assess the heart's rhythm and, if needed, recommend that a shock be delivered to correct the heart's rhythm. An adult who has just gone into sudden cardiac arrest (i.e., cessation of a heartbeat, most commonly due to a heart attack) is most likely in urgent need of defibrillation, a metered electrical charge that can restore the heart to healthy function and save a life. To provide a realistic chance of survival, defibrillation must be available soon after cardiac arrest.

## ***AED Locations***

AEDs are stationed in the following locations:

1. Police Department, Physical Plant
2. Administration Building, 3<sup>rd</sup> Floor, behind general reception desk.
3. Library, 2<sup>nd</sup> Floor, Circulation Desk
4. Cowan Center, 1<sup>st</sup> Floor, Robing Room
5. Nursing Building, Dean's Office
6. Student Affairs/Athletics office, University Center

## ***Procedures for Training and Testing in Use of AED***

Personnel using the AED must complete either an American Red Cross or American Heart Association AED (CPR/AED) Program and have a current certification, to include instruction in:

- The proper use, maintenance, and periodic inspection of the AED.
- Defibrillator safety precautions to enable the user to administer a shock without jeopardizing the safety of the patient, the user, or other persons.

- Assessment of an unconscious person to determine if cardiac arrest has occurred and the appropriateness of applying an AED.
- Recognizing that an electrical shock has been delivered to the patient and that the defibrillator is no longer charged.
- Rapid, accurate assessment of the patient's post shock status to determine if further activation of the AED is necessary.
- The operations of the local emergency medical services system, including methods of access to the emergency response system, and interaction with emergency medical services personnel.
- The role of the user and coordination with other emergency medical service providers in the provision of CPR, defibrillation, basic life support, and advanced life support.
- The responsibility of the user to continue care until the arrival of medically qualified personnel.

## **Medical Director**

The Medical Director has authority over the entire AED program and its participants. General responsibilities include the establishment and maintenance of the guidelines for care included in this protocol. In addition, the Medical Director also ensures quality assurance, compliance to protocols, proper training and provides positive reinforcement to individuals and the system, as well as corrective instruction.

Medical Director: Dudley Goulden, M.D., FACC,  
 Professor of Medicine, Division of Cardiology  
 The University of Texas Health Center at Tyler

Phone Number: 903-877-7230

## **AED Coordinator**

The AED Coordinator is an employee of the corporation who is the primary liaison between the company's AED program and the Medical Director. This person has responsibility for maintaining all equipment and supplies, organizing training programs and regular re-training programs, forwarding any incident data to the Medical Director and holding post-incident debriefing sessions for any employees involved.

AED Coordinator: Barbara O'Keeffe, Director  
 Environmental Health & Safety  
 The University of Texas at Tyler

Phone Number: 903-566-7011  
 Cell Phone Number: 903-530-6465

## **Targeted Responders**

Specific individuals are targeted and trained to use an AED in a sudden cardiac arrest emergency. These individuals are trained and operate under the direction of the Medical Director.

A list of targeted responders is maintained by Environmental Health & Safety.

# UT TYLER Facility AED Protocol

**Indications:** AEDs should be used if a victim has signs of cardiac arrest:

- Unresponsive
- Not breathing
- No pulse or other signs of circulation

**Special Situations/Critical Concepts:**

1. Children:

*Actions:*

- Do not use an AED if the victim is younger than 8 years (55 pounds).

2. Water:

*Actions:*

- Remove the victim from contact with water.
- Drag the victim gently by the arms or legs or use a blanket drag.
- Quickly dry the victim's chest before attaching the AED.

3. Implanted pacemakers or defibrillators:

*Actions:*

- Do not place an AED electrode pad directly over an implanted device.
- Place an AED electrode pad at least 1 inch to the side of any implanted device.

4. Transdermal medications:

*Actions:*

- Remove the patch and wipe the area clean before attaching the AED.

5. Metal Surfaces:

*Actions:*

- Unnecessary to move the victim from a metal surface.

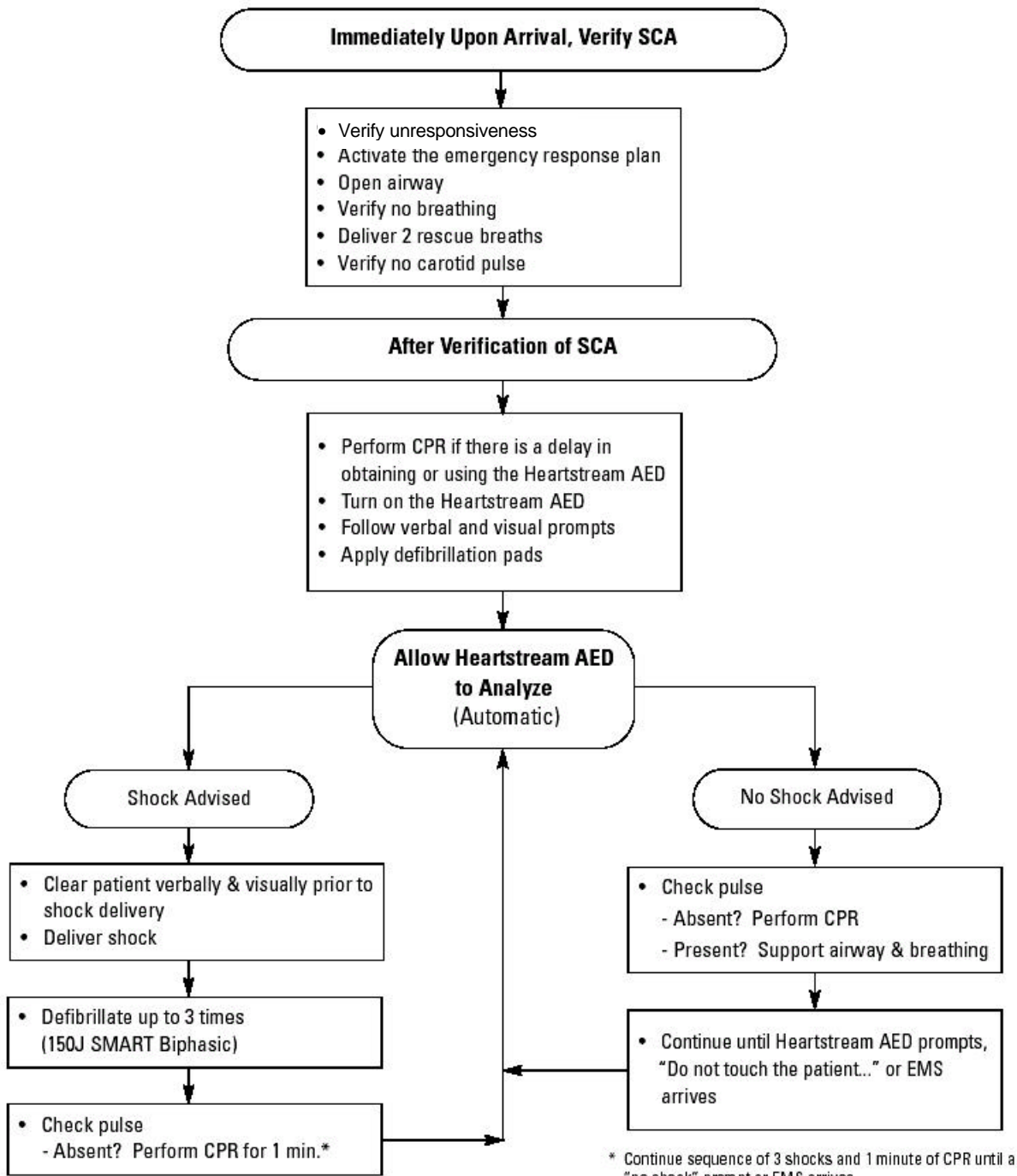
# AED Medical Standing Order

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**\*\*\*Patient must be unresponsive, have no pulse, no breathing, and weigh 55 lbs or more for AED application\*\*\***

1. If patient is unresponsive, call 9-1-1 (as necessary) and call for AED if it is not already at scene
2. Assess ABCs
  - If patient is pulseless and apneic (no pulse, no breathing), follow steps # 3-14:
3. Begin CPR until AED can be applied
4. Turn on AED
5. Attach electrode pads appropriately
6. Recite provider information during setup for voice-recorder (if applicable for device):
  - Provider name
  - Provider agency/institution
  - Patient age (or best estimate) and sex
  - Witnessed or non-witnessed arrest
  - Bystander CPR prior to AED application (yes or no)
  - Additional information if known
  - DO NOT DELAY AED APPLICATION OR OPERATION FOR THIS SEQUENCE
  - If sequence is not provided when machine is turned on, provide it as soon as possible thereafter
7. Stop CPR
8. Allow AED to analyze rhythm; follow machine's prompts
9. Deliver up to 3 successive shocks if AED so advises; if no shock advised, go to #10
10. Reassess patient: if no pulse, perform CPR for 1 minute
11. Allow AED to analyze rhythm: deliver up to 3 additional shocks if AED so advises; if no shock advised, go to #12
12. Reassess patient: if no pulse, perform CPR for 1 minute
13. As long as AED advises to deliver shocks, repeat steps #11-12 until Advanced Life Support arrives
14. Transfer data cassette/card to transporting EMS agency prior to ambulance departure

# Automated External Defibrillation (AED) Treatment Algorithm



\* Continue sequence of 3 shocks and 1 minute of CPR until a "no shock" prompt or EMS arrives.

# Automated External Defibrillator Quality Review Procedures

