

AUTOMATIC EXTERNAL DEFIBRILLATOR PROTOCOL



Purpose

- The purpose of the procedure is to ensure the operational components which support the medical effectiveness of the AED program are established and followed.
- Early defibrillation has been recognized as the most effective means of reducing death due to cardiac arrest resulting from ventricular fibrillation. Approximately 60% of out-of-hospital arrests are discovered to be in ventricular fibrillation. Unless defibrillation is rapidly delivered, restoring an effective heartbeat will become impossible.

Objective

- Defibrillation is an advanced medical skill subject to the provision of state law and delegated practice. As such, the medical aspects of the AED program have been addressed and approved by the medical director for Jackson Parish Ambulance Service District through the AED EMT defibrillation Standing Orders contained within the Medical Protocols for Jackson Parish

Definitions

- Automated External Defibrillator (AED) – a device which includes a detection system that analyzes the cardiac rhythm of an arrest patient, determines when defibrillation is appropriate, and delivers the electrical current on the demand of the emergency medical provider.
- Defibrillation – the delivery of an electrical current directly through the chest wall and heart for the purpose of terminating the deadly rhythm of ventricular fibrillation.
- Ventricular fibrillation – a chaotic rhythm of the heart muscle which does not produce a pulse or effective circulation.

General Provisions

- Louisiana State Law provides that a certified First Responder of EMT may administer automated defibrillation after completion of an approved training and certification program. Each agency in Jackson Parish, utilizing AED's, are responsible for maintaining records on the members trained and the training classes held. **ONLY PERSONS TRAINED TO USE THE AEDs SHOULD BE PERMITTED TO OPERATE THEM.** Nothing in this protocol prohibits AHA trained personnel from operating an AED.
- Each agency in Jackson Parish operating AEDs understands their obligation to insure the working order of the AEDs carried for emergency medical use, i.e.: batteries maintained, pads not expired.
- Every person authorized to use an AED in Jackson Parish should be re-trained at a minimum of every two years. This training may only be given by an AHA or Red Cross Trained Instructor with current credentials at the time of training. Again, the record must be kept by each agency.

Procedures

- Medical protocols in Jackson Parish follow the AHA 2005 guidelines for CPR and AED use. This protocol should reflect those guidelines.
- Patients with established unresponsiveness, pulselessness, and apnea should have CPR performed on them immediately. A minimum of two minutes of CPR, with adequate ventilations via mouth to mask or BVM. The ratio is 30 compressions to 2 ventilations in sets of five.
- The AED should be attached, with one pad placed on the lower left margin of the rib cage slightly to the left and below the left nipple. The other pad is to be placed just below the right clavicle, mid nipple line.
- Compressions should be continued until the AED is ready to analyze. Analyze the rhythm and provide one shock if recognized by the AED.
- Immediately resume CPR for two minutes prior to any pulse check or rhythm recognition. Continue the CPR for two minutes, then shock routine until the patient shows signs of circulation. ALS care arrived or the patient regains consciousness.

Reports

- State Law requires each incident of AED use be available for review.
- AEDs used in Jackson Parish should be downloaded and included with the Jackson Parish Ambulance Service District Patient Care Report. The appropriate software for each should be obtained from the various vendors.

Repairs and Malfunctions

- It is imperative to an emergency medical service provider their AED remains in full operating condition. Any reports of failures or malfunctions during testing should be immediately reported to the manufacturer. The AED should be removed from service until such time a repair is made.