

# CHARLOTTESVILLE-ALBEMARLE RESCUE SQUAD Clinical Review and Training

## **Biphasic Defibrillator Guideline**

**Purpose:** To delineate requirements and practices for the provision of EMS defibrillation with the goal of increasing the survival rate from cardiac arrest.

#### Device: Philips HeartStart MRx Monitor/Defibrillator



Bi-phasic defibrillation allows defibrillation at a lower joule setting to be as effective as monophasic defibrillation at the traditional 200J, 200-300J, and 360J. Following the manufacturer recommendation and the approval of the Operational Medical Director, the Charlottesville-Albemarle Rescue Squad has set up the following guidelines:

#### I. Adult Bi-phasic Defibrillation Settings (Manual and AED):

- A. Ventricular Fibrillation/pulseless Ventricular Tachycardia
  - 1. Shock sequence: 150 J for every defibrillation

#### II. Adult Bi-phasic Synchronized Cardioversion (Manual):

- A. Ventricular Tachycardia (Wide complex with a pulse)
  - 1. Shock sequence: 100 J escalating to 200 J per attempt
- B. Atrial Fibrillation (Narrow complex irregular)
  - 1. Shock sequence: 120 J escalating to 200 J up to 2 attempts before MC
- C. Atrial Flutter and PSVT (Narrow complex regular)
  - 1. Shock sequence: 50 J-100 J escalating to 200 J up to 2 attempts before MC

## III. Pediatric Bi-phasic Defibrillation Settings (AED and Manual):

- A. AED defibrillation on pediatric patients > 1 year of age
- B. Manual pediatric Bi-phasic defibrillation (pulseless rhythm)
  - 1. Shock sequence: 2 J/kg may escalate to 4 J/kg

# IV. Pediatric Bi-phasic Synchronized Cardioversion (Manual):

- A. Ventricular Tachycardia and SVT with pulse
  - 1. Shock sequence: 0.5-1.0 J/kg may escalate to 2 J/kg on MC

Standard Clinical Procedure Revised: January 1, 2015