



# EMS System for Metropolitan Oklahoma City and Tulsa 2019 Medical Control Board Treatment Protocols



Approved 9/12/18, Effective 1/15/19, replaces all prior versions

## 4D – MANUAL DEFIBRILLATION ADULT & PEDIATRIC

### PARAMEDIC

#### Indication:

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

#### Contraindications:

Spontaneous pulse.  
All cardiac rhythms except ventricular fibrillation/pulseless ventricular tachycardia.

#### Technique:

1. Power **ON**. (Figure 1)
2. Connect the therapy electrodes (defibrillation pads) to the therapy cable and confirm cable connection to the monitor/defibrillator. (Figure 2)
3. Prepare the patient's skin and apply therapy electrodes to the patient in anterior left chest and posterior left chest position. (Figure 3)
4. Confirm desired energy is selected, or press **ENERGY SELECT** or rotate the **SPEED DIAL** to select the desired energy. (Figure 4)

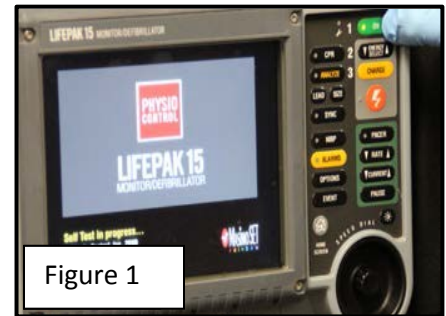


Figure 1



Figure 2

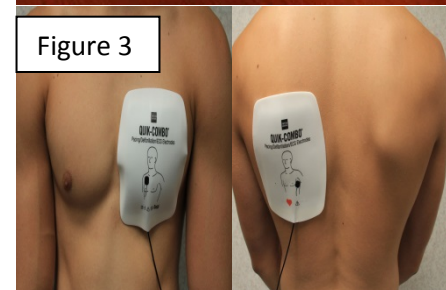


Figure 3

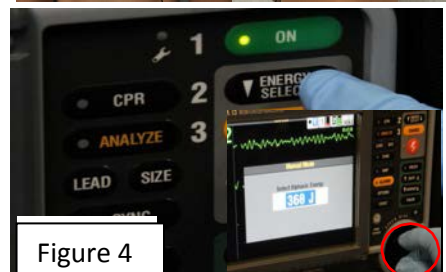


Figure 4




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### Protocol 4D: Manual Defibrillation, Adult & Pediatric, cont.

5. Press **CHARGE**. While the monitor/defibrillator is charging, a charging bar appears and a ramping tone sounds, indicating the charging energy level. When the monitor/defibrillator is fully charged, the screen displays available energy. (Figure 5).
6. Make certain all personnel, including the operator of the monitor/defibrillator, are physically clear of the patient, stretcher, bed and any equipment connected to the patient.
7. Confirm ECG rhythm of ventricular fibrillation or pulseless ventricular tachycardia. Confirm available energy.
8. Press the  (shock) button on the monitor/defibrillator to defibrillate the patient. (Figure 6)
9. **NOTE:** To disarm (cancel the charge), press the SPEED DIAL. The monitor/defibrillator disarms automatically if shock buttons are not pressed within 60 seconds, or if the energy selection is pressed after charging begins. **IF DEFIBRILLATION NOT INDICATED UPON A RHYTHM CHECK, DISARM (CANCEL THE CHARGE) BEFORE RESUMING CHEST COMPRESSIONS TO PREVENT INADVERTANT ELECTRICAL EXPOSURE TO EMS PERSONNEL.**
10. Repeat procedure starting from Step 4, when indicated

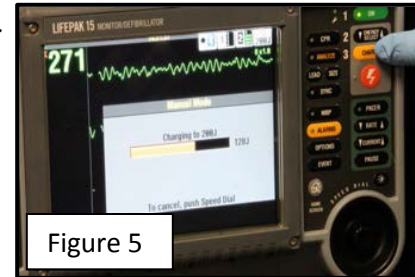


Figure 5

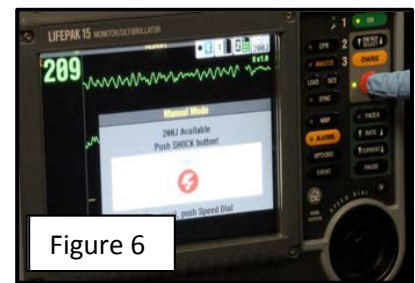


Figure 6

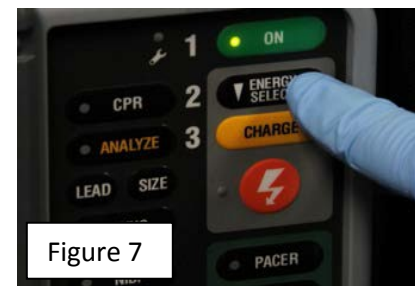


Figure 7

### PEDIATRIC PATIENT:

If patient is less than 4 years of age and/or under 15 kg weight, connect the Quik-Combo<sup>®</sup> Pediatric Electrodes to the monitor/defibrillator and proceed to Step 3. **NOTE:** Pediatric: Initial defibrillation 2 joules/kg with second and subsequent defibrillations at 4 joules/kg. Prior to determining manual defibrillation settings count prior AED defibrillations.

### DEFIBRILLATION CLINICAL PEARLS:

1. In an emergency resuscitation setting that requires defibrillation, if unfamiliar with monitor/ defibrillator available, look for 1-2-3 sequence (Figure 7) that all monitor/defibrillators are labeled with by industry practice. 1 turns on the device; 2 selects energy; 3 charges the device. Typically, immediately next to 3 is the shock or discharge button.
2. In an emergency resuscitation setting that requires defibrillation, do not interrupt or pause chest compressions unless absolutely necessary. **Continue to provide chest compressions while a monitor/defibrillator operator is powering on the monitor/defibrillator, selecting energy and charging the device.**
3. **DO NOT CONTINUE TO PROVIDE CHEST COMPRESSIONS WHEN THE MONITOR/DEFIBRILLATOR IS DISCHARGING / DEFIBRILLATING.**