Approved 9/2/26, Effective 1/15/27, 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
(STRYKER LifePak® 15)

1. Power **ON**. (Figure 1)

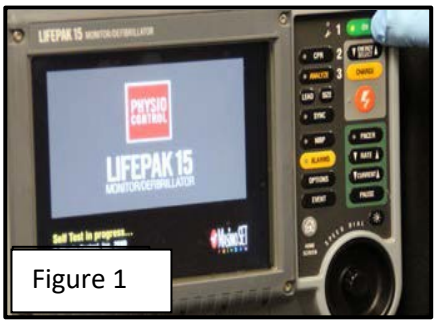

Figure 1

2. Connect the therapy electrodes (defibrillation pads) to the therapy cable and confirm cable connection to the monitor/defibrillator. (Figure 2)


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)

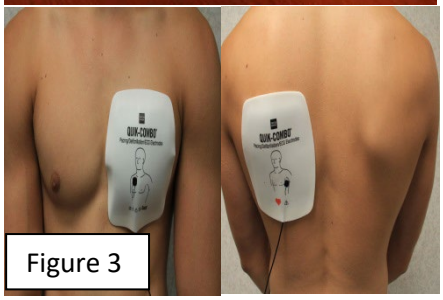
Figure 3

4. Confirm desired energy is selected, or press **ENERGY SELECT** or rotate the **SPEED DIAL** to select the desired energy. (Figure 4)



Figure 4

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).

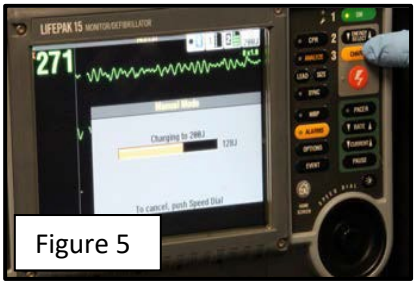

Figure 5

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)

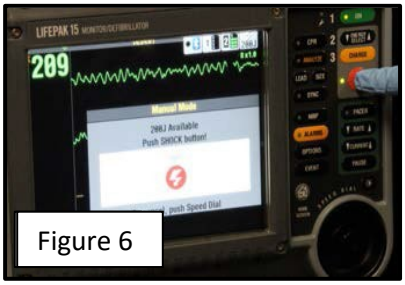

Figure 6

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.

Technique
(STRYKER LifePak® 35)

1. Power **ON**. (Figure 1). The cycling of the power on process can take up to 15 seconds to complete.



Figure 1

2. Use the touch screen to select **Therapy** on the lower right hand corner on the screen. (Figure 2)


Figure 2

3. Connect the therapy electrodes (defibrillation pads) to the therapy cable and confirm cable connection to the monitor/defibrillator. (Figure 3)

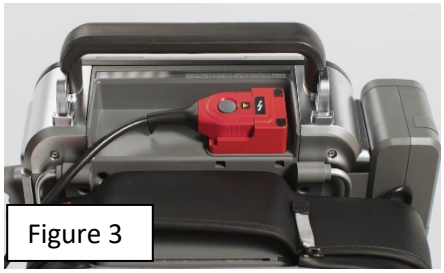
Figure 3

4. Prepare the patient's skin and apply therapy electrodes to the patient in anterior left chest and posterior left chest position. (Figure 4)

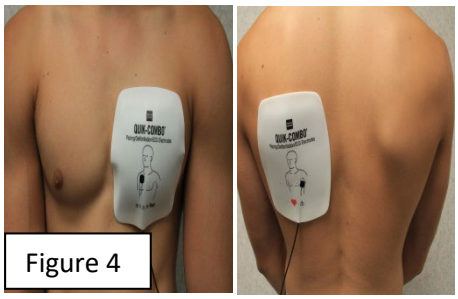
Figure 4

5. Confirm **DEFIB** is selected on the touch screen. Confirm desired energy is selected, or utilize the touch screen by pressing the **ENERGY SELECT UP/DOWN ARROWS, ENERGY DIAL,** or rotate the physical **SPEED DIAL** to select the desired energy. (Figure 5) **Note:** The LifePak 35 is programmed to escalate Joule Settings (200,300,360,360, etc.) with each defibrillation. Manually selecting the energy setting removes the programmed escalation until the device is powered off, and will need to be manually selected to escalate joule settings for the remainder of the patients care.



Figure 5

6. Press **CHARGE** on the keypad. While the monitor/defibrillator is charging, yellow shading appears in the energy dial, and a ramping tone sounds, indicating the charging energy level. When the monitor/defibrillator is fully charged, the screen displays available energy. (Figure 6).



Figure 6

7. 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.

8. Confirm ECG rhythm of ventricular fibrillation or pulseless ventricular tachycardia. Confirm available energy.

9. The **Shock** button will illuminate **RED** when prepared for energy delivery. Press the (shock) button on the monitor/defibrillator to defibrillate the patient. (Figure 7). When the shock is delivered, the **Energy Delivered** message will appear on the touch screen. The shock counter on the top left corner of the **Therapy** screen will show total number of shocks given to the patient during treatment.



Figure 7

NOTE: To disarm (cancel the charge), press **Energy Select Arrows**, **Energy Dial**, or the physical **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 5, when indicated

PEDIATRIC PATIENT:

If patient is less than 4 years of age and/or under 15 kg weight, connect the Quik-Combo® Pediatric Electrodes to the monitor/defibrillator and proceed to Step 5.

NOTE: **Pediatric**: Initial defibrillation 2 joules/kg with second and subsequent defibrillations at 4 joules/kg. Utilize available system processes and references such as HANDTEVY for ease and accuracy of joule setting determination. Prior to determining manual defibrillation settings count prior AED defibrillations.

DEFIBRILLATION CLINICAL PEARLS:

1. 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.**

2. **DO NOT CONTINUE TO PROVIDE CHEST COMPRESSIONS WHILE DISCHARGING/DEFIBRILLATING.**