## SEMI AUTOMATIC EXTERNAL DEFIBRILLATOR

## **NOTE**: The use of an AED is contraindicated in patients under the age of 9

- Take appropriate body substance isolation precautions.
- Question the rescuers about the arrest details.
- Instruct the rescuers to stop CPR.
- Verify that the patient is in cardiac arrest by checking for the presence of breathing and a carotid pulse.
- Instruct the rescuers to resume CPR.
- Position the defibrillator on the side of the patient opposite the rescuer performing chest compressions.
- Open the defibrillator pads and attach them to the cables.
- Prepare the patient's chest by opening the shirt, shaving off excess hair and/or drying the chest
  with a towel or dressing if necessary. If the patient has nitroglycerin paste or a nitroglycerin patch
  on his/her chest, you must remove it assuring not to get any nitroglycerin on you or other rescuers.
  Dispose of the nitroglycerin along with any material used to remove it from the patient in a
  biohazard container.
- Apply the sternum pad or white cable pad to the right side of the patient's chest with the top edge of the pad touching the bottom of the clavicle and the side of the pad to the right border of the sternum. Apply the apex pad or red cable pad to the patient's left lateral chest at the anterior axillary line above the lower rib margin. When the pads are properly positioned the heart should be between the two pads.

**NOTE**: If the patient has a pacemaker or an internal automatic defibrillator/cardioverter where you would normally apply one of the pads, you will need to apply the pad 5" away from this site.

- Turn on the power to the defibrillator. Make sure that the recording device is running (if applicable). If in a moving ambulance stop the ambulance in a safe location.
- Instruct the rescuers to stop CPR and make sure no one is in contact with the patient. Loudly verbalize "Clear the patient" and assure no one is touching the patient.
- Press the analyze button on the AED. Assure no one is touching the patient or performing CPR while the AED is analyzing.

- If the AED determines that the patient is in a "shockable" rhythm, it will charge to the pre-selected energy setting. When ready, it will alert you to "press to shock" button. Insure that no one is touching the patient or touching anything that is in contact with the patient by looking up and down the patient and saying loudly, "clear". Keep your eyes on the patient while depressing the button. The first shock should be delivered within 90 seconds of the AED reaching the patient.
- After the shock has been delivered, reanalyze the patient's rhythm assuring there is no one touching the patient. If the patient is still in a "shockable" rhythm, repeat the shock sequence. Complete this sequence one more time for a total of three shocks without interruption.
- After the third shock has been delivered, check for the presence of a carotid pulse. If the pulse is absent, perform CPR (2 rescuer) for one minute and verify the effectiveness of CPR (compressions and ventilations). At the end of one minute, check for a pulse. If the pulse is still absent, reanalyze the patient's rhythm.
- If the patient is still in a "shockable" rhythm, repeat the 3 shock sequence again.
- After the second set of three shocks have been delivered, check for a pulse. If the pulse is absent, perform CPR, begin to package and transport the patient to the hospital.
- If there is a short transport time continue to transport the patient to the hospital. If there is a long transport or ALS backup is close, repeat another set of three (3) stacked shocks. If the patient is still in a shockable rhythm after 9 shocks, repeat sets of three (3) stacked shocks with one (1) minute of CPR between each set of shocks until the patient regains a pulse or you receive the message "no shock indicated".

**NOTE**: If at any time the defibrillator doesn't recommend a shock, check for a pulse. If the pulse is absent, perform CPR.

If a pulse is present, reassess the patients' breathing status and treat accordingly.

Monitor the patient and transport to the hospital.