DEFIBRILLATION

Indication:

Ventricular fibrillation or pulseless ventricular tachycardia.

Procedure:

1. Establish unresponsiveness.
2. Check to make sure patient is pulseless and not breathing.
3. Have someone begin CPR while you prepare the defibrillator.
4. Turn the monitor/defibrillator to the ON position and select the paddle mode in preparation for using quick-look paddles.
5. Use hands-free pads or defibrillation gel pads to be used with paddles.
6. Select the correct electrical charge per v-fib/pulseless VT SOP.
7. Press the charge button and release.
8. If using paddles, place the paddles firmly on the chest, exerting 20 to 25 pounds of pressure. Place one paddle on the right of the sternum between the second and third intercostal space and the other at the fifth intercostal space, left midclavicular line, near the apex of the heart.
9. The defibrillator is ready to fire when the charge indicator light stops flashing and glows steadily. The defibrillator will not fire unless it is fully charged to the desired energy level.
10. Call "CLEAR" and visually clear the area to verify that no one; including yourself is in contact with the patient.
11. Check monitor screen one more time before defibrillating to make sure the patient is still in ventricular fibrillation.
12. Depress **both** paddle discharge buttons **simultaneously** for defibrillation, or the button on the monitor if using hands-free pads.
13. After defibrillation continue CPR for two minutes. After two minutes, check the patient's EKG strip, to see if ventricular fibrillation was terminated.
14. If repeat defibrillation is indicated, depress CHARGE and repeat the above steps according to the algorithms.
15. Document the procedure. Documentation should include:
    a. EKG strip of defibrillation - push CODE SUMMARY on the Life-Pak 10.
    b. Patient's name, date, time, lead, joules delivered and number of defibrillations.
    c. Post defibrillation rhythm.
16. If further defibrillation is unnecessary, be sure that there is no charge in the defibrillator. Most defibrillators "dump" their charge into the machine by turning the joules selection dial to another setting.
17. Once the machine is disarmed, quickly clean the paddles by wiping them with a paper towel or 4X4 gauze pad. Once at the hospital, the paddles must be cleaned with soap and water. Make sure all conductive jelly is removed because any jelly that remains may corrode and put the paddle heads, which may cause electrical arcing and skin burns in the future.
18. Contact and advise Medical Control of the patient's status.

SUCCESSFUL DEFIBRILLATION

You can make defibrillation attempts more successful if the following points are remembered:

- Speed is of utmost importance if defibrillation is to be successful. The longer the time period between the onset of fibrillation and defibrillation, the less the likelihood of success.
- Paddle placement must be placed so that the ventricles are in the current path. Electricity is known to follow the path of least resistance. This path corresponds to the coronary circulation and the electrical system of the heart.
- Bone is a poor conductor; therefore, paddles or pads should not be placed directly over the sternum.
- Resistance to current flow will decrease with each successive defibrillation, especially if the time interval between each shock is short.
- Always maintain an adequate airway to correct hypoxia and acidosis. Heart muscle that is deprived of oxygen is difficult to defibrillate into a viable and perfusing rhythm.
- Never shock a patient on a wet surface! The current may follow the residual water, resulting in an ineffective delivery of current, burns to the patient, or defibrillation of the medic or bystanders.
- Do not shock over nitroglycerin paste, a pacemaker battery pack, or AICD.