

VENTRICULAR FIBRILLATION/PULSELESS VENTRICULAR TACHYCARDIA

1. Confirm Cardiac Arrest (unresponsive, pulseless, breathless, no evidence of trauma)
2. Witnessed Arrest: if EMS witnessed or less than 4 minutes estimated down time, go to c.i.
3. Un-witnessed
 - a. Check pulse, if absent, do paddle pick-up
 - b. Begin CPR (30 compressions to 2 breaths for 5 cycles (2 min.) Ventilate with **100% oxygen**—8-10 breaths per minute (DO NOT HYPERVENTILATE)
 - c. Presenting V-Fib or pulseless V-Tach
 - i. **Defibrillate at 360J or biphasic 200J*** (or manufactures recommendation) (continue CPR while charging)
 - ii. After shock, resume CPR
 - iii. If no conversion, CPR, intubate (**confirm placement**), **IV/IO LR/NS** TKO, ventilate with **100 % oxygen-8-10 breaths per minute**
 - iv. **Epinephrine**, 1 mg IV/IO or ET repeat every 3-5 minutes during arrest-- or 1 dose of vasopressin 40 U IV/IO to replace the 1st or 2nd dose of epinephrine
 - v. **Defibrillate at 360J or biphasic 200J*** (or manufactures recommendation)
 - vi. **Lidocaine** 1-1.5 mg/kg IV may repeat dose in 3-5 minutes @ .5-.75 mg/kg
 - vii. **Defibrillate at 360J or biphasic 200J*** (or manufactures recommendation)
 - viii. **Sodium Bicarbonate** 1mEq/kg IV (consider if down time is 10 or more minutes)
 - ix. Continue ACLS.
 - x. Transport to the closest hospital or terminate resuscitation as directed.
 1. ****If conversion to another rhythm use appropriate protocol***
 - xi. **Contact Medical Control**
4. Medical Control Options
 - a. Terminate resuscitation if no spontaneous pulse restored with 30 minutes of ACLS measures.
5. Notes of Concern
 - a. Circulate medications for one minute prior to defibrillation. Flush with at least 10 cc of IV solution, and elevate the extremity.
 - b. Antecubital or external jugular veins are the peripheral veins of choice in cardiac arrest.
 - c. Early defibrillation is the most important factor in the successful resuscitation of cardiac arrest.
 - d. If IV access is unavailable, the use of the endotracheal tube for medication route should be considered. Use only with Epinephrine, Atropine, and Lidocaine at 2 times the IV dose **diluted to 10ml in NS**.
 - e. Begin a **Lidocaine** drip 2-4mg/minute following conversion.
 - f. **Lidocaine** therapy is contraindicated in the following:
 - i. Bradycardia and heart blocks
 - ii. Wide complex **ventricular bradycardia**
 - iii. **Lidocaine** may suppress a ventricular escape rhythm and induce Asystole.
 - iv. Use 1/2 dose of **Lidocaine** for elderly, liver, and kidney patients
 - g. It is important to note whether CPR was started and what time prior to ALS or BLS arrival
 - h. IO administration of medication should be considered in a patient in full arrest.
6. Pre-cordial thump-no recommendation can be made for or against its use by ACLS providers (Class Indeterminate)