

# VENTRICULAR FIBRILLATION / PULSELESS VENTRICULAR TACHYCARDIA

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

## INDICATION

- Pulseless, apneic with cardiac rhythm of ventricular fibrillation or wide complex tachycardia

## CRITICAL INFORMATION

- Witnessed or unwitnessed
- Bystander CPR

## TREATMENT

- Witnessed arrest: CPR until defibrillator available
- Unwitnessed arrest: CPR for 2 minutes prior to defibrillation
- ALL arrests: CPR for 2 minutes between shocks. Do not check rhythm immediately after shock.
- Defibrillate as per manufacturer’s recommendations (see below). Repeat 30-60 seconds after drug administrations
  - Manufacturer’s defibrillation recommendations:
    - Medtronic Biphasic: initial shock-200J, second-300J, third-360J
    - Zoll Biphasic: initial-120J, second-150J, third-200J
    - Monophasic: all shocks at 360J
- ALS RMC
- If VF/VT converts to another rhythm post defibrillation, refer to appropriate protocol for further treatment
- If VF/VT continues:
  - **Epinephrine** 1:10,000 1.0 mg IV/IO; repeat q 3-5 minutes;
  - Consider **Amiodarone** 300 mg IV/IO push (diluted in, or followed by, 20 to 30 ml **NS**). Initial dose can be followed by ONE 150 mg IV/IO push in 3 to 5 minutes
- If rhythm converts and SBP< 90, give 250-500 ml fluid challenge
- If rhythm converts with **Amiodarone**, monitor and consider infusion of **Amiodarone** drip (150mg in 100 ml NS, 1 mg/minute= 40 gtts/min. with 60 drops ml/ tubing)

## SPECIAL CONSIDERATIONS

- Establishment of IV/IO, airway and medication administration should occur during CPR and should not interrupt the CPR cycles
  - If rhythm converts without administration of **Amiodarone**, monitor and transport
  - Consider pre-cordial thump if witnessed and no defibrillator immediately available
  - Consider and treat possible contributing factors:

<ul style="list-style-type: none"> <li>▪ Hypovolemia</li> <li>▪ Hypoxemia</li> <li>▪ Hydrogen ion (acidosis)</li> <li>▪ Hypo/Hyperkalemia</li> <li>▪ Hypoglycemia</li> <li>▪ Hypothermia</li> </ul>	<ul style="list-style-type: none"> <li>▪ Toxins (overdoses)</li> <li>▪ Tamponade, cardiac</li> <li>▪ Tension pneumothorax</li> <li>▪ Thrombosis (coronary / pulmonary)</li> <li>▪ Trauma</li> </ul>
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## DOCUMENTATION – ESSENTIAL ELEMENTS

- Bystander CPR
- Witnessed or unwitnessed