Ventricular fibrillation (VF)  
OR  
Pulseless Wide Complex Tachycardia (VT)

1. Initiate or continue CPR and as soon as defibrillator available:
   ▶ Defibrillate once at maximum energy setting or pre-programmed/manufacturer’s recommended defibrillator setting

2. If before loading and initiation of transport, a rhythm with pulse develops (return of spontaneous circulation [ROSC]):
   ▪ Ventilate and oxygenate
   ▪ Assess for and correct hypoxia, hypovolemia, hypoglycemia, or hypothermia
   ▪ Make Base contact for CVRC destination

3. If remains pulseless:
   → Maintain CPR
   ▶ High-flow oxygen by BVM
   → IV/IO vascular access without interruption of CPR

4. Monitor cardiac rhythm:
   → If continued VF/pulseless Wide Complex Tachycardia
   ▶ Defibrillate once at maximum energy setting or pre-programmed/manufacturer’s recommended defibrillator setting
   → If PEA or asystole: refer to PEA/Asystole treatment sequence

5. For continued VF/pulseless Wide Complex Tachycardia or if reverts back to VF/pulseless Wide Complex Tachycardia:
   → Maintain CPR
   ▶ Administer Epinephrine 1 mg IV/IO (0.1 mg/mL preparation), repeat approximately every 3 minutes for continued VF/pulseless Wide Complex Tachycardia
   ▶ Advanced airway with minimal interruption of CPR and confirm tube placement.

6. For continued VF/pulseless Wide Complex Tachycardia:
   → Maintain CPR
   ▶ Defibrillate once at maximum energy setting or pre-programmed/manufacturer’s recommended defibrillator setting.

7. For continued VF/pulseless Wide Complex Tachycardia:
   → Maintain CPR
   ▶ Administer Amiodarone 300 mg IV/IO, may repeat 150 mg IV/IO in approximately 3 minutes

8. After approximately 2 minutes of CPR, if there is continued VF/pulseless Wide Complex Tachycardia:
   ▶ Defibrillate once at maximum energy setting or pre-programmed/manufacturer’s recommended defibrillator setting

9. For continued VF/pulseless Wide Complex Tachycardia:
   → Maintain CPR and transport to nearest ERC or make Base contact:
   ▪ For further resuscitation orders
   ▪ To request pronouncement of patient in the field
Pulseless Electrical Activity (PEA)

OR

Asystole

1. Initiate or maintain CPR without interruption unless pulse obtained by any step below
   - High-flow oxygen by BVM

PEA

2. Continually monitor cardiac rhythm:
   - Maintain CPR
   - IV/IO vascular access
   - 250 mL Normal Saline bolus

   If pulses obtained,
   continue saline infusion and transport to CVRC per Base contact

If no response

ASYSTOLE

2. Continually monitor cardiac rhythm:
   - Maintain CPR
   - IV/IO vascular access

3. ▶ Administer Epinephrine 1 mg IV/IO (0.1 mg/mL preparation) approximately every 3 minutes
   - Assess for possible reversible causes:
     - hypovolemia
     - acidosis
     - hypoxia
     - tension pneumothorax
     - hypothermia
     - toxins
   If diabetic and hypoglycemia suspected, administer:
   - Dextrose 10%, 250 mL IV/IO once

4. ▶ Advanced airway with minimal interruption of CPR and confirm tube placement

5. If VF/ pulseless Wide Complex Tachycardia develops:
   - Defibrillate once using pre-programmed/manufacturer's recommended defibrillator setting
   and follow VF/pulseless Wide Complex Tachycardia algorithm

6. If before loading and initiation of transport, a rhythm with pulse develops (return of spontaneous circulation [ROSC]):
   - Ventilate and oxygenate
   - Assess for and correct hypoxia, hypervolemia, hypoglycemia, or hypothermia
   - Make Base contact for CVRC destination

7. For continued PEA or asystole:
   - Maintain CPR and transport to nearest ERC or make Base contact:
     - For further resuscitation orders
     - To request pronouncement of patient in the field

Approved:

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TREATMENT GUIDELINES:

- Agonal gasps are not adequate breathing and when accompanied with a pulseless state the patient should be considered to be in full cardiopulmonary arrest.

- If the patient has an implanted pacemaker or defibrillator/pacemaker, place electrode pads to either side and not directly on top of the implanted device.

- If the patient has a medication patch in place on the chest area, remove the patch and wipe the area clean before attaching an electrode pad.

- If a patient is wearing a LifeVest®
  - Proceed with standard evaluation and treatment measures.
  - Initiate CPR unless the vest device is broadcasting “press the response buttons,” “electrical shock possible, do not touch patient,” or “bystanders do not interfere.”
  - Follow standard treatment as described in algorithms above and remove the LifeVest® and monitor/treat the patient with the standard monitor-defibrillator.
  - To remove the LifeVest®, first pull out or disconnect the battery, then remove the garment from the patient.
  - Take vest, modem, charger, and extra battery to the hospital.

- If Base Hospital orders push-dose epinephrine for refractory hypotension, refer to ALS Procedure # 230 (Push-Dose Epinephrine) for technique in performing procedure.