

Southern Illinois Regional EMS System

CC-5 ADULT VENTRICULAR FIBRILLATION PULSELESS VENTRICULAR TACHYCARDIA (VF/VT)

ALS/ILS

- Patient Assessment and Initial Care protocol
- Cardiac Arrest protocol
- Defibrillate 360 J monophasic or biphasic equivalent.
 - If prolonged or unknown downtime, consider performing 2 minutes (5 cycles) of CPR prior to initial shock.
- Perform CPR immediately after first shock for 2 minutes (5 cycles).
 - While CPR is in progress,
 - Establish IV/IO access with NS or LR
 - Consider preparation of medications.
- After 2 minutes of CPR
 - Check rhythm/pulse.
 - If rhythm changes, proceed to appropriate algorithm.
 - If pulse returns, check blood pressure.
 - If blood pressure low, go to hypotension algorithm.
- Persistent or recurrent VF / Pulseless VT found after pulse/rhythm check:
 - Defibrillate 360 J monophasic or biphasic equivalent.
 - Immediately perform CPR for 2 minutes (5 cycles).
 - Administer a vasopressor.
 - **Epinephrine 1mg IV/IO push q 3-5 min.**
 - Administer medication during CPR in order to reach central circulation.
- If VF or pulseless VT found after pulse/rhythm check:
 - Defibrillate 360 J monophasic or biphasic equivalent.
 - Immediately perform CPR for 2 minutes (5 cycles).
 - Administer an antiarrhythmic
 - **Amiodarone 300mg IV/IO push diluted in 20-30mL of NS.**
 - Medical Control can order repeat dose of **Amiodarone 150mg IV/IO**
 - Administer medication during CPR in order to reach central circulation.
- If VF or pulseless VT found after pulse/rhythm check:
 - Continue the shock-CPR-drug-assess cycles.
 - Continue the drug rotation of vasopressor – antiarrhythmic.
- If still no response:
 - Consider **Lidocaine 1-1.5mg/kg IV/IO push.**
 - Contact Medical Control.

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- For Refractory VF:
 - May give additional **Lidocaine 0.5 to 0.75 mg/kg IV/IO push**
 - Repeat in 5-10 minutes to maximum of 3 mg/kg.
 - (ALS) Consider **Lidocaine infusion of 1-2mg/kg** upon return of spontaneous circulation.
 - Requires Medical Control order.

- (ALS) Consider **Magnesium Sulfate** administration for Torsades des Pointes
 - **1 to 2 grams IV/IO over 5-20 minutes.**
 - Dilute in 10 mL of NS.
 - Prefilled packaging of magnesium sulfate is diluted.

- ET drug administration:
 - Amiodarone is not approved to be given via ET.
 - ET Epinephrine: 2-2.5 mg diluted in 10 mL NS.
 - Lidocaine: 2-3.75 mg/kg with saline flush.
 - Vasopressin: 80 units with saline flush.

- NOTES:
 - Consider the most appropriate time for advanced airway placement.
 - Placement of an endotracheal tube should not interfere with chest compressions.
 - If you can adequately ventilate with a BVM and OPA/NPA, early emphasis should not be placed on intubation.
 - Immediate airway attention is required when vomitus, blood, or secretions pose an aspiration hazard.