



## EMS System for Metropolitan Oklahoma City and Tulsa 2023 Medical Control Board Treatment Protocols



Approved 9/14/22, Effective 1/16/23, replaces all prior versions

### 16D – AMIODARONE (CORDARONE®, NEXTERONE®)

#### PARAMEDIC

**Class:** Class III Anti-Dysrhythmic (Vaughn William Classification)

**Actions/Pharmacodynamics:** Prolongs the cardiac action potential's refractory period, slowing conduction through the heart. Amiodarone also has secondary actions in the other three classifications of anti-dysrhythmics. Amiodarone blocks sodium channels (class I) which can prevent cardiac action potentials. It is a non-competitive anti-sympathetic (class II) which slows cardiac action potentials. Amiodarone also slows conduction through the cardiac atrioventricular (AV) node (class IV). In sum, all of these actions lead to slowing of conduction and prolongation of refractoriness in the cardiac conduction system.

**Indications:** Ventricular Fibrillation/Pulseless Ventricular Tachycardia (4G)  
Tachycardia - Stable (5F)  
    Wide-Complex Tachycardia of Uncertain Type or  
    Monomorphic Ventricular Tachycardia (if heart rate  $\geq$  150 beats per minute with systolic BP  $\geq$  100 mmHg in adults)  
    Narrow-Complex Tachycardia (if heart rate  $\geq$  150 beats per minute with systolic BP  $\geq$  100 mmHg in adults) **\*\*OLMC Order Only**  
Tachycardia - Unstable (5G)  
    Post-Cardioversion of Ventricular Tachycardia  
Premature Ventricular Contractions (5K)  
    Symptomatic Premature Ventricular Contractions (with BP  $<$  100mmHg in adults due to frequent non-conducted ventricular impulses and in absence of 2nd/3rd degree AV blocks)

**Contraindications:** 2nd/3rd degree AV blocks (may induce asystole)  
Bradycardia (may induce symptomatic hypotension)

**Pharmacokinetics:** Onset of action within 60 seconds after IV administration, with effects lasting up to 20-25 minutes.

**Side Effects:** Hypotension is the most common side effect, requiring treatment in less than 20% of patients (transient effect). Bradycardia and AV Block may also result, requiring treatment in less than 10% of patients (transient effect). In a very rare circumstance, as with all anti-dysrhythmics which can have pro-dysrhythmic effects, torsades may result from excessive prolongation of the cardiac action potential. When indicated by protocol, the benefits of amiodarone administration exceed these risks of side effects.



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### PROTOCOL 16D: Amiodarone (Cordarone®, Nexterone®), cont.

**Dosage: Ventricular Fibrillation/Pulseless Ventricular Tachycardia - Adult (4G)  
(refractory to initial defibrillation attempt)**

300 mg IVP/IOP. Repeat at 150 mg IVP/IOP in 5 minutes to maximum cumulative dose of 450 mg. Epinephrine 1 mg (1:10,000) IVP/IOP is to be given with every amiodarone administration.

**Ventricular Fibrillation/Pulseless Ventricular Tachycardia - Pediatric (4G)  
(refractory to initial defibrillation attempts)**

5 mg/kg IVP/IOP in single dose. Epinephrine 0.01 mg/kg (1:10,000, 0.1 mL/kg) IVP/IOP is to be given with every amiodarone administration.

**Ventricular Fibrillation/Pulseless Ventricular Tachycardia - Adult (4G)  
(Successful conversion to sustained pulsatile rhythm)**

150 mg (add to 100 ml NS and infuse over 10 minutes). If unable to establish IV access, then add 150 mg to 50 ml NS in a syringe and administer via IO over 10 minutes. IF maximum cumulative dose of 450 mg has not been achieved.

**Ventricular Fibrillation/Pulseless Ventricular Tachycardia - Pediatric (4G)  
(post return of sustained spontaneous circulation)**

**Tachycardia - Stable - Pediatric (5F)**

(wide-complex tachycardia of uncertain type or monomorphic ventricular tachycardia; narrow-complex tachycardia)

**Tachycardia - Unstable - Pediatric (5G)**

**Premature Ventricular Contractions - Pediatric (5K)**

**\*\*OLMC Consult & Order Only**

**Tachycardia - Stable - Adult (5F)**

(wide-complex tachycardia of uncertain type - standing order;  
monomorphic ventricular tachycardia - standing order;  
narrow complex - \*\*OLMC order only)

**Tachycardia - Unstable - Adult (5G)**

(post cardioversion of ventricular tachycardia)

**Premature Ventricular Contractions - Adult (5K)**

150 mg (add to 100 ml NS and infuse over 10 minutes). If unable to establish IV access, then add 150 mg to 50 ml NS in a syringe and administer via IO over 10 minutes.

**How Supplied:** 150 mg/3 mL in vial, ampule, or pre-filled syringe.

150 mg/100 mL pre-mixed infusion.

(Always check concentration and dose per container at time of patient medication administration)