

AMIODARONE [CORDARONE]

DRUG CLASSIFICATION	Class III Antiarrhythmic Potassium Channel Blocker Antisymphathetic; Antiadrenergic Agent
MECHANISM OF ACTION	Amiodarone acts directly on the myocardium, blocking potassium currents that cause repolarization of the heart muscle during the third-phase of the cardiac action potential, increasing the duration of action potential and effective refractory period for cardiac cells, decreasing myocyte excitability and afterload, leading to the reversal of abnormal AV conduction, and preventing reentry mechanisms from perpetuating tachyarrhythmias. Unlike other Class III antiarrhythmic agents, Amiodarone affects the function of beta-adrenergic receptors, sodium channels, and calcium channels leading to decreased SA node automaticity and AV node conduction which, sometimes results in unwanted side effects such as bradycardia, hypotension, and Torsades de Pointes.
CLINICAL INDICATIONS	UNSTABLE SUPRAVENTRICULAR & VENTRICULAR ARRHYTHMIAS: - Narrow-Complex Tachycardia with Pulses Present - Atrial Arrhythmia + Wolff-Parkinson-White (WPW) with Pulses Present - Monomorphic Wide-Complex (QT-Interval < 500 ms) Tachycardia with Pulses Present - Polymorphic Wide-Complex (QT-Interval < 500 ms) Tachycardia with Pulses Present - Ventricular Fibrillation / Pulseless Ventricular Tachycardia
STANDARD CONTRAINDICATIONS	Hypersensitivity to Amiodarone, Iodine, or Other Relative Components Second- or Third-Degree AV Heart Block (Without Functioning Pacemaker Present) Sick Sinus Syndrome (Without Functioning Pacemaker Present) Known or Suspected Cardiogenic Shock PEA / Asystole in Cardiac Arrest
POTENTIAL ADVERSE EFFECTS	Lightheadedness / GI-Distress / Dyspnea / Hypotension / Bradycardia / Arrhythmia / AV Heart Block / Cardiac Arrest
GENERAL RISKS & PRECAUTION	1) Consider potential reversible causes prior to administration such as hypokalemia, hypomagnesemia, other toxicities, etc. 2) May worsen existing or precipitate new effects on hemodynamic stability such as AV-Block, SA Arrest, prolonged QT-I, etc. 3) Patients with chronic use of Amiodarone therapy may present with blue-grey skin discoloration. 4) Beers Criteria: Avoid use as the first-line treatment for atrial fibrillation in elderly population unless the patient has heart failure or substantial LVH due to severe risks associated with greater toxicity. 5) Giving multiple antiarrhythmics requires contact of Medical Control.
PROTOCOL INDEX	Adult Tachycardia Narrow Complex (AC-6) Adult Monomorphic Tachycardia Wide Complex (AC-7) Adult Polymorphic Tachycardia Wide Complex / Torsades de Pointes (AC-8) Ventricular Fibrillation / Pulseless Ventricular Tachycardia (AC-9) Pediatric Ventricular Fibrillation / Pulseless Ventricular Tachycardia (PC-7) Pediatric Post-Resuscitation (PC-8) Pediatric Tachycardia Wide Complex (PC-6)

MEDICATION ADMINISTRATION

ADULT

PEDIATRIC

Irregular, Monomorphic Narrow-Complex Tachycardia (Clinically Stable)
150 mg / **100 mL of D5W** [IV/IO]; Infuse over 10 minutes using a 10-gtt set; (Administer 100 gtts/minute).

Irregular, Monomorphic Wide-Complex Tachycardia (Clinically Stable)
150 mg / **100 mL of D5W** [IV/IO]; Infuse over 10 minutes using a 10-gtt set; (Administer 100 gtts/minute); May repeat same infusion therapy if wide-complex tachycardia recurs.

Polymorphic Wide-Complex Tachycardia (Pulses Present AND QTI < 500 msec)
150 mg / **100 mL of D5W** [IV/IO]; Infuse over 10 minutes using a 10-gtt set; (Administer 100 gtts/minute); May repeat same infusion therapy if wide-complex tachycardia recurs.

Ventricular Fibrillation or Pulseless Ventricular Tachycardia in Cardiac Arrest
300 mg [IV/IO]; May repeat 150 mg [IV/IO] if rhythm is refractory.

Post-Resuscitation Maintenance (ROSC with Amiodarone AND HR > 60 bpm)
100 mg / **100 mL of D5W** (= 1 mg / mL) [IV/IO]; Infuse over 10 minutes; using a 60-gtt set (Administer 1 mg/minute = 60 gtts/minute).

Ventricular Fibrillation or Pulseless Ventricular Tachycardia in Cardiac Arrest
5 mg / kg [IV/IO]; (Maximum Initial Dose: 300 mg)
May repeat every 5 minutes, as needed; (Maximum Repeat Dose: 150 mg)
(Maximum Total Dose: 15 mg / kg)

Post-Resuscitation Maintenance (ROSC Achieved with Amiodarone)
5 mg / kg in **100 mL of D5W** [IV/IO]; Infuse over 10 minutes using a 10-gtt set; (Administer 100 gtts/minute).

***** Prior Consultation with Medical Control is Required – See PC-6 Pearls**
Regular, Monomorphic Wide Complex Tachycardia (VT or SVT with Aberrancy)
5 mg / kg [IV/IO]; Infuse over 20 – 60 minutes; (Must be mixed using **D5W**)

***** Rhythm may be SVT with aberrancy; VT is uncommon in children; HR may vary from normal to > 200 bpm; Most children with VT have underlying heart disease, cardiac surgery, long QT-syndrome, or cardiomyopathy.**