

Subject: Medication – Paramedic
Amiodarone Administration Policy

I. Class

Antiarrhythmic agent

II. Indications

- A. Ventricular Fibrillation or pulseless Ventricular Tachycardia unresponsive to defibrillation.
- B. Sustained stable Ventricular Tachycardia or sustained unstable Ventricular Tachycardia not responding to cardioversion.
- C. Unstable Supraventricular Tachyarrhythmia (SVT/PSVT) unresponsive to Adenosine and cardioversion attempts.

III. Therapeutic Effects

- A. Amiodarone is a complex drug with effects on sodium, potassium, and calcium channels as well as α - and β -adrenergic blocking properties.
- B. Increases the action potential duration (repolarization inhibition).
- C. Noncompetitively blocks beta-adrenergic receptors.
- D. No real inotropic effects.
- E. Prolonged therapy increases the refractory period in the atria, ventricles, and AV node.

IV. Contraindications

- A. Absolute:
 - 1. None for the Cardiac Arrest patient
- B. For those NOT in Cardiac Arrest:
 - 1. Sinus Bradycardia
 - 2. Atrioventricular blocks
 - 3. Second- or third-degree heart blocks
 - 4. Neonates
 - 5. Digitalis Toxicity
- C. Relative:
 - 1. Only use in pregnancy in unstable patients

V. Adult - Administration and Dosage

- A. Adult – Cardiac Arrest
 - 1. Ventricular Fibrillation/Pulseless Ventricular Tachycardia:
 - 2. First dose: 300 mg IV/IO push.
 - 3. Second dose of 150 mg IV/IO in 3 to 5 minutes, if needed.
- B. Life-Threatening Arrhythmias
 - 1. Unstable Ventricular Tachycardia with pulses unresponsive to cardioversion:
 - a. Loading dose of 150 mg IV infusion over 10 minutes (15 mg/minute). Mix 150 mg into 100cc bag of either D5W or Normal Saline.

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- b. Maintenance dose: 1mg/minute slow IV over 6 hours.
2. Unstable Supraventricular Tachyarrhythmia (SVT/PSVT) unresponsive to Adenosine and cardioversion attempts.
 - a. Loading dose of 150 mg IV infusion over 10 minutes (15 mg/minute).
 - b. Maintenance dose: 1mg/minute slow IV over 6 hours.
3. Sustained Ventricular Tachycardia in the stable patient:
 - a. Loading dose of 150 mg IV infusion over 10 minutes (15 mg/minute).
 - b. Maintenance dose: 1 mg/minute slow IV over 6 hours.

VI. Pediatric Administration and Dosage

- A. Pediatric Cardiac Arrest
 1. Ventricular Fibrillation/ Pulseless Ventricular Tachycardia
 2. 5mg/kg IV/IO bolus,
 3. Can repeat the 5mg/ kg IV/IO in 3-5 minutes.
 4. Not to exceed 300mg for a single dose.
- B. Unstable Supraventricular Tachyarrhythmia (SVT/PSVT) unresponsive to Adenosine and cardioversion attempts.
 1. Loading dose of 5mg/kg IV/IO over 20 minutes (Maximum single dose 150mg)
- C. Sustained Ventricular Tachycardia in the stable patient:
 1. Loading dose of 5mg/kg IV/IO over 20 minutes. (Maximum single dose 150mg)

VII. Special Information - Adverse effects include:

- A. Multiple complex drug interactions. Use caution in the conscious patient.
- B. Hypotension is the most common adverse effect usually due to the rate of infusion. Hypotension should be treated initially by slowing the infusion. Additional standard care may include vasopressors, positive inotropic agents, and volume expanders.
- C. Bradycardia and AV blocks can occur, and it is not dose related but due to rate of infusion. Bradycardia should be treated by slowing the infusion rate or discontinuing amiodarone. Be prepared to externally pace if bradycardia persists.
- D. DO NOT mix with Lactated Ringers or use LR as a flush following administration.

VIII. Base Orders

- A. Standing Order if no contraindications exist.