

Adenosine

GENERIC NAME

Adenosine

TRADE NAME

Adenocard

DESCRIPTION

Adenosine is a naturally occurring substance present in all cells that slows conduction through the AV node of the heart. Due to its rapid onset of action and short half-life, the administration of Adenosine is sometimes referred to as "chemical cardioversion."

HOW SUPPLIED

Vial and pre-filled syringe: 6 mg/2 mL

INDICATIONS

- Paroxysmal Supraventricular Tachycardia (PSVT) refractory to common vagal maneuvers
- Wide Complex Tachycardia with a pulse

CONTRAINDICATIONS

- Hypersensitivity or allergy to adenosine
- Second- or third-degree heart block
- Sick sinus syndrome

MECHANISM OF ACTION

Adenosine decreases conduction of the electrical impulse through the AV node, which can terminate rapid supraventricular arrhythmias such as PSVT. The half-life of Adenosine is approximately 5 seconds.

SPECIAL CONSIDERATIONS

The preferred IV site is the antecubital fossa with an 18 gauge or larger catheter. Administer via the port closest to the IV catheter for rapid delivery.

SIDE EFFECTS

- Facial flushing
- Headache
- Shortness of breath
- Chest pain or tightness
- Dizziness
- Nausea
- Other transient symptoms due to the brief half-life of adenosine

AUTHORIZATION

EMT: Not Authorized

AEMT: Not Authorized

Paramedic: Standing Order and Medical Control

DOSAGE

- **Adult:**
 - 1st dose: **6 mg** Rapid IV/IO push, followed immediately by a 10 – 20 mL saline bolus
 - 2nd dose: **12 mg** Rapid IV/IO push, followed immediately by a 10 – 20 mL saline bolus
 - 3rd dose: **12 mg** Rapid IV/IO push, followed immediately by a 10 – 20 mL saline bolus
- **Pediatric:**
 - 1st dose: **0.1 mg/kg (max 6 mg)** Rapid IV/IO push, followed immediately by a 10 mL saline bolus
 - 2nd dose: **0.2 mg/kg (max 12 mg)** Rapid IV/IO push, followed immediately by a 10 mL saline bolus
 - 3rd dose: **0.2 mg/kg (max 12 mg)** Rapid IV/IO push, followed immediately by a 10 mL saline bolus

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