

Medication: Adenosine	PDN: 6900.04	Last Updated: October 25, 2013	PMD: Andrew Travers*	PDC: Steven Carrigan*	Page 1 of 2
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ADENOSINE

1.0 Classification

- Class V antiarrhythmic; naturally occurring nucleoside

2.0 Mechanism of Action

- Slows AV node conduction

3.0 Indications

- Stable narrow-complex SVT
- Unstable narrow-complex re-entry tachycardia while preparing for cardioversion
- Regular and monomorphic wide-complex tachycardia, thought to be, or previously defined as, re-entry SVT
- As a diagnostic manoeuvre for stable narrow-complex SVT

4.0 Contraindications

- Irregular, polymorphic wide-complex tachycardia
- Known hypersensitivity
- Drug-induced tachycardia
- 2nd or 3rd degree heart block
- Wolff-Parkinson-White [seen as short PR interval, wide QRS, and slurred upstroke to QRS (delta wave)]

5.0 Precautions

- Patients with unstable angina may be at greater risk for major side effects

6.0 Route

- May be given IV

7.0 Dosage

Adult

- 6 mg IV rapid bolus followed by 20 mL normal saline flush; may be repeated in 1-2 minutes (if symptoms persist) as a second dose of 12 mg IV rapid bolus with 20 mL normal saline flush

Pediatric

- 0.1 mg/kg (maximum of 6 mg) IV rapid bolus followed by 5 mL normal saline flush; may be repeated in 1-2 minutes (if symptoms persist) as a second dose of 0.2 mg/kg (maximum of 12 mg) IV rapid bolus with 5 mL normal saline flush.

8.0 Supplied

- 6 mg preloaded syringe

9.0 May Be Given By

- ACP/CCP

10.0 Adverse effects

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- Chest pressure
- Dizziness
- Dyspnea
- Nausea
- Feeling of impending doom
- Transient bradycardia

11.0 Special notes

- Adenosine often causes arrhythmias, lasting only a few seconds, at the time of cardioversion including PVCs, PACs, bradycardia, AV blocks, or asystole. If arrhythmia persists, initiate appropriate treatment.
- Due to the very short half-life of adenosine, it should only be administered through a lock or IV port close to the patient with the flush administered through a proximal port (one port upstream from where adenosine was administered).
- Pregnancy category C [if the patient will benefit from a Category C drug, it is generally used]

12.0 References

- Adult Cardiac Arrhythmia Clinical Practice Guideline
- Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed

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