REGIONAL ADULT PARENTERAL DRUG MONOGRAPH

GENERIC NAME
adenosine

Effective Date: Jan 2013 **Revised Date:** Jan 2024	CLASSIFICATION **Antiarrhythmic**	OTHER NAMES **Adenocard**	PAGE 1 of 2

ADMINISTRATION POLICY:

IV Bolus – **Administration restricted to nurse in ED/Cardiac Room/ICU**
Intraosseous/IO – **Administration restricted to nurse in ED/Cardiac Room/ICU**
IV Infusion – Not recommended

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 3 mg/mL – 6 mg/2 mL, 12 mg/4 mL pre-filled syringes

IV bolus/IO: Administer undiluted over 1 to 3 seconds preferably into large peripheral or central venous access device (injection port closest to patient). May also be injected directly into vein or via an injection port. Follow immediately with 20 mL normal saline flush to ensure complete drug administration.
Rapid drug administration is required.

DOSAGE:

Usual: 6 mg IV bolus/ IO – May be followed with 12 mg in 1 to 2 minutes if needed (12 mg bolus may be repeated)

NOTE: It may be necessary to decrease the dose by half when administering via the catheter ports located in or near the heart (eg: Swan-Ganz catheter, distal ports of central venous access devices).

Maximum single dose: 12 mg
Maximum daily dose: 30 mg (ie. 6 mg, 12 mg and 12 mg) maximum 3 doses per tachycardia episode

Maximum rate: Over 1 to 3 seconds
Maximum concentration: 3 mg/mL

STABILITY/COMPATIBILITY:

Stability of solution: Store at room temperature. DO NOT REFRIGERATE. Crystallization may occur if refrigerated. Contains no preservatives. Discard unused portion.
Stability of Final Admixture: N/A

Compatibility: Compatible with normal saline, D5W, Lactated Ringer

PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- Adverse reactions are frequent but transient (less than minute) usually not requiring intervention
- Nausea, lightheadedness, headache, dizziness, dyspnea, bronchoconstriction (avoid use if possible, in patients with asthma/COPD)
- AV block, facial flushing, sweating, transient arrhythmias, hypotension & tachycardia are more common if injected slowly

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ADDITIONAL NOTES AND NURSING CONSIDERATIONS :

- Continuous EKG monitoring is mandatory
- Contraindication in 2nd/3rd degree AV block, sick sinus syndrome and symptomatic bradycardia unless the patient has a functioning artificial pacemaker
- Effect of adenosine are antagonized by theophylline and caffeine
- Ventricular fibrillation has occurred rarely when administered to patients on digoxin or verapamil
- Concomitant use of carbamazepine may potentiate the effects of adenosine. Consider dose reduction (3 mg as initial dose)
- Following administration, new arrhythmias as well as asystole frequently appear for less than 10 seconds before conversion to sinus rhythm