

**ORANGE COUNTY EMS AGENCY
PARAMEDIC PHARMACOLOGY HANDBOOK**

MEDICATION: ADENOSINE (ADENOCARD [®])	ADULT DOSE	PEDIATRIC DOSE	SIDE EFFECTS	PRECAUTIONS/COMMENTS
<p>CLASSIFICATION: Antidysrhythmic agent</p> <p>MECHANISM OF ACTION:</p> <ul style="list-style-type: none"> Depresses automaticity in the sinus node and Purkinje fibers. Slows AV conduction and interrupts re-entry pathways through AV node. Immediate onset, duration less than 10 seconds. <p>INDICATIONS:</p> <ul style="list-style-type: none"> PSVT in a conscious patient, with signs and/or symptoms of cardiac ischemia or poor perfusion including associated chest pain, shortness of breath, pulmonary congestion or congestive heart failure, hypotension or shock, altered skin signs, or decreased capillary refill. Wide complex tachycardia as diagnostic and/or therapeutic maneuver. May be used in critical patients if administration will be substantially faster than immediate counter shock. <p>CONTRAINDICATIONS:</p> <ul style="list-style-type: none"> Known hypersensitivity to adenosine. <p>DOSAGE FORM:</p> <ul style="list-style-type: none"> 6 mg/2 mL in 2 mL vials or prefilled syringe 12 mg/4 mL, 4 mL prefilled syringe 	<ul style="list-style-type: none"> 6 or 12 mg rapid IVP over 1-3 seconds in port closest to patient followed by rapid flush of 10 mL NS. May repeat in 1-2 minutes. Drug is metabolized in less than 10 seconds. Start IV in antecubital vein. Flush with 10 mL NS bolus injecting immediately after drug administration. Opening IV to flush <u>not</u> adequate. 	<ul style="list-style-type: none"> 0.1 or 0.2 mg/kg rapid IVP over 1-3 seconds in port closest to patient to maximum dose of 6 mg. Follow with a rapid flush of 5 mL NS. May repeat in 1-2 minutes. Maximum dose 12 mg. Drug is metabolized in less than 10 seconds. Start IV in antecubital vein. Flush with 5 mL NS bolus injecting immediately after drug administration. Opening IV to flush <u>not</u> adequate. 	<ul style="list-style-type: none"> chest pain/pressure* hypotension transient PACs, PVCs transient bradycardia/sinus arrest metallic taste throat tightness facial flushing* <p>*More common side effects</p>	<ul style="list-style-type: none"> History of "sick sinus" syndrome, second, or third degree heart block without pacemaker. Reactive airway disease (asthma, COPD) —may cause bronchospasm. Should not be given to patients with severe asthma. Adenosine does not convert atrial flutter, atrial fibrillation or ventricular tachycardia to sinus rhythm. Persantine (dipyridamole) and Tegretol (carbamazepine) potentiate the action of adenosine resulting in increased heart block - use lower dose. Due to denervation of heart, use with extreme caution in cardiac transplant recipients—may have persistent asystole. Use in children only for definite/ highly suspected SVT. (Children's heart rates are faster; SVT usually must be more than 200/minute to warrant treatment.) Theophylline preparations may render adenosine ineffective; higher dose may be required.

