

Adenosine

Indications: Supraventricular Tachycardia SVT (including WPW) refractory to vagal maneuvers

Contraindications: 2nd or 3rd degree heart block (without a functioning pacemaker); Known Sick sinus syndrome; Known History of Long QT Syndrome; Pregnancy Category C; Irregular Wide-complex tachycardia presumed to be WPW

Concentration: 3 mg/mL

ADULT DOSING

Indication	Dose	Rate & Route	Note
Supraventricular Tachycardia SVT	12 mg 4 mL	Rapid IV/IO push with 10 ml flush	May repeat one time

ADULT DOSING

PEDIATRIC DOSING

Indication	Dose	Rate & Route	Note
Supraventricular Tachycardia SVT	0.2 mg/kg	Rapid IV/IO push with flush	May repeat one time. Single dose max of 12 mg

PEDIATRIC DOSING

Pediatric Dosing Adenosine

3 kgs	4kgs	5 kgs	6-7 kgs	8-9 kgs	10-11 kgs	12-14 kgs	15-18 kgs	19-23 kgs	24-29 kgs	30-36 kgs
6.6 lbs	8.8 lbs	11 lbs	13-15 lbs	17-20 lbs	22-24 lbs	26-30 lbs	33-40 lbs	42-50 lbs	53-64 lbs	66-80 lbs
in18.25-20.25	in20.25-21.5	in21.5-23.25	in23.25-26.25	in26.25-29.25	in29.25-33	in33-37.5	in37.5-42.5	in42.5-47.75	in47.75-51.25	in51.25-56.25
Adenosine: IV/IO for SVT May repeat x1 Concentration = 3mg/mL										
0.2 mL	0.3 mL	0.3 mL	0.4 mL	0.6 mL	0.7 mL	0.9 mL	1.1 mL	1.4 mL	1.8 mL	2.0 mL

Precautions

Advising patient of the side effects of adenosine prior to administering can help minimize patient anxiety. Large bore IV, antecubital access or IO access & IV wide open during administration; it may help to have your partner administer the fluid bolus. Start your EKG printout before administration and continue printing through bolus and conversion. Administration of adenosine will cause a period of asystole & various conversion dysrhythmias, be patient, most will transiently resolve.

Adverse/Side Effects

Flushing, Dizziness, Chest Pain, Lightheadedness, Dyspnea, Numbness, Headache, Nausea/Vomiting , Diaphoresis, Palpitations , Metallic Taste

Class

Supraventricular Antiarrhythmic, Nucleoside

Mechanism of Action

Slows tachycardias associated with the AV node via modulation of the autonomic nervous system without causing negative inotropic effects. It acts directly on sinus pacemaker cells and vagal nerve terminals to decrease chronotropic & dromotropic activity. Slows conduction through the AV node, blocks reentry pathways through the AV node, can transiently slow conduction in the SA node.

Onset of Action

Rapid

Peak Effect

Rapid

Duration of Action

Very brief