



NEONATAL Medication Monograph

ADENOSINE



This document should be read in conjunction with this [DISCLAIMER](#)

Restricted: Requires Cardiologist review within 24 hours of initiation

Presentation	Vial: 6 mg/2 mL = 3000microg/mL
Classification	Antiarrhythmic - rapid onset anti-arrhythmic action resulting in transient AV node block.
Indication	Supraventricular tachycardia
Dose	IV: Initial dose: 100 microgram/kg/dose Subsequent doses: Increase initial dose by 100 microgram/kg/dose increments every 2 minutes until return of sinus rhythm. Maximum dose: 300 microgram/kg/dose
Monitoring	Continuous ECG monitoring, blood pressure and respiration monitoring.
Dose Adjustment	Dose according to response The first dose should not exceed 6mg and the second dose should not exceed 12mg. If multiple doses are required within 24 hours; consult cardiologist.
Guidelines & Resources	Arrhythmias Arrhythmias and Cardiac Arrest on NICU: Treatment Algorithms
Compatible Fluids	Sodium Chloride 0.9%, Glucose 5%.
Administration	Refer to next Page

Administration	<p>IV: Rapid IV bolus over 1 to 2 seconds preferably into a central line (UVC or short jugular/ femoral CVC, not PICC) or a peripheral line into large proximal vein (antecubital fossa ideal) or intraosseous if difficult access.</p> <p>Follow with rapid 10mL sodium chloride 0.9% flush.</p> <p>Note: IV administration into lower extremities or into smaller veins may result in therapeutic failure, however, if this is only access available then attempt this route).</p> <p>**Administer by ONE person using 2 syringes (one with adenosine dose and the other with 10mL sodium chloride 0.9% flush) connected via a 3-way tap. The drug administrator may instruct a second person to turn the 3-way tap.</p>
Preparation	<p>IV: Doses greater than 600 micrograms 600microg = 0.2mL No dilution required.</p> <p>Doses less than 600 micrograms Dose may be diluted as described below. Compatible Fluid: Sodium Chloride 0.9%, Glucose 5%</p> <p>Dilution Dilute 1mL (3000 microg) of adenosine with 9 mL of compatible fluid. Total volume is 10mL = 3000microg/10mL <u>Final Concentration = 300 microg/mL</u></p> <p>Discard diluted solution immediately after use.</p>
Adverse Reactions	<p>Flushing, irritability, transient arrhythmias, hypotension Dyspnoea, bradycardia, bronchial constriction</p>
Storage	<p>Store below 25°C Do NOT refrigerate; crystallisation will occur.</p>
Interactions	<p>The levels/effects of adenosine may be decreased by caffeine or caffeine containing products.</p>
Notes	<p>Adenosine has a very short duration of effect (half-life 1-10 seconds)</p>

References	<p>Advanced Paediatric Life Support. Supraventricular Tachycardia (SVT) management. In: APLS [Internet]. Melbourne (Victoria); 2017 [cited 2019 Apr 2]. Available from: https://www.apls.org.au/page/algorithms</p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 23rd ed. Hudson (Ohio): Lexicomp; 2017. 2,401 p68.</p> <p>Truven Health Analytics. Adenosine. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 Mar 15]. Available from: https://neofax.micromedexsolutions.com/</p> <p>Australian Medicines Handbook. Adenosine. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2019 [cited 2019 Mar 15]. Available from: https://amhonline.amh.net.au/</p> <p>Society of Hospital Pharmacists of Australia. Adenosine. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2019 Mar 15]. Available from: http://aidh.hcn.com.au</p>
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