



NEONATAL



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	IV: Rapid IV bolus over 1 to 2 seconds into a central or large peripheral vein. Follow with rapid sodium chloride 0.9% flush.
Preparation	IV: Doses greater than 600 micrograms 600microg = 0.2mL No dilution required.

	<p>Doses less than 600 micrograms</p> <p>Dose may be diluted as described below.</p> <p>Compatible Fluid: Sodium Chloride 0.9%, Glucose 5%</p> <p><i>Dilution</i></p> <p>Dilute 1mL (3000 microg) of adenosine with 9 mL of compatible fluid.</p> <p>Total volume is 10mL = 3000microg/10mL</p> <p><u>Final Concentration = 300 microg/mL</u></p> <p>Discard diluted solution immediately after use.</p>
Adverse Reactions	<p>Flushing, irritability, transient arrhythmias, hypotension</p> <p>Dyspnoea, bradycardia, bronchial constriction</p>
Storage	<p>Store below 25°C</p> <p>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>

Keywords:	Adenosine, supraventricular tachycardia, SVT		
Document owner:	Head of Department - Neonatology		
Author / Reviewer:	KEMH & PCH Pharmacy / Neonatology Directorate		
Date first issued:	May 2008	Version:	3.2
Last reviewed:	April 2019	Next review date:	March 2021
Endorsed by:	Neonatal Directorate Management Group	Date:	April 2019
Standards Applicable:	NSQHS Standards: 1  Clinical Care is Guided by Current Best Practice, 4  Medication Safety;		
Printed or personally saved electronic copies of this document are considered uncontrolled. Access the current version from the WNHS website.			

© Department of Health Western Australia 2018