Waikato District Health Board	Type: **Drug Guideline**	Document reference: **6304**	Manual Classification: **Waikato DHB Drug Guidelines**	
Title: **Adenosine for Neonates**			Effective date: **21 July 2020**	
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BRIEF ADMINISTRATION GUIDE

For detailed information refer to The Australasian Neonatal Medicines Formulary **adenosine** guideline

Critical Note: there are minor variations between the ANMF and Waikato DHB best practice within this drug guideline – see yellow shaded text

Indications: Pharmacological conversion of supraventricular tachycardia (SVT)

Note: Methylxanthines antagonise the interaction of adenosine with its receptor, hence caffeine citrate given in the preceding 24h may inhibit effectiveness

Route: Intravenous (IV)
Note: Ideally administered via a central venous line or large peripheral vessel. Administration through an umbilical artery catheter should be discouraged as the drug is metabolised systemically and metabolised prior to delivery to the heart.

- Supplied as adenosine 6 mg / 2 mL vial for injection

Dose: 100 micrograms/kg initially
- then 200 micrograms/kg if SVT persists
- then 300 micrograms/kg

If SVT still not controlled with the 300microgram/kg dose consider using a 400 or 500 microgram/kg dose – discuss with a Cardiologist.

Note: Once the effects of adenosine have been noted, it is usually necessary to institute long term anti-arrhythmic therapy

Preparation and administration

Intravenous

- Draw up 1mL (3mg) of drug and add 9mL of sodium chloride 0.9% to make final volume of 10mL with a concentration of 0.3mg/mL or 300 micrograms/ml
- Draw up required dose and administer by rapid intravenous push over 1-2 seconds with rapid follow-up flush (use 3-way tap).
- Repeat dose every 1-2 minutes to maximum of 3 doses increasing by 100 micrograms/kg per dose if SVT persists. If SVT persists past 3 doses contact a Cardiologist to discuss a larger dose possibility or alternative agent (see NICU guideline #1683 Supraventricular Tachycardia – Management in NICU)

Monitoring

- Continuous ECG monitoring (with printer capabilities) during administration

Storage and Stability

- Discard unused portion of vial

Competency for administration:

This procedure is carried out by, or under, the direct supervision of a registered nurse/registered midwife who holds current Waikato DHB Generic Medicine Management and IV certification. For CVAD administration Neonatal specific competency NCV/NAC is also required.

Associated Documents

- Waikato DHB guideline #1683 Supraventricular Tachycardia – Management in Newborn Intensive Care Unit. Accessed via https://intranet.sharepoint.waikato.health.govt.nz/site/pol/published/Supraventricular%20Tachycardia%20-%20Management%20in%20Newborn%20Intensive%20Care%20Unit%20(NICU).pdf#search=1683

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