South Australian Neonatal Medication Guidelines

adenosine

6mg/2mL injection

This is a High Risk Medication ⚠

An overdose can be rapidly fatal.

Government of South Australia
SA Health

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Contact: South Australian Neonatal Medication Guidelines Workgroup at:
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adenosine

6mg/2mL injection

Dose and Indications

1mg = 1000micrograms

Write all doses in micrograms

To Revert Paroxysmal Supraventricular Tachycardia (SVT)

Intravenous

100micrograms/kg/dose initially, increasing by 100microgram/kg/dose increments (to a maximum of 300micrograms/kg/dose) every 2 minutes until return of sinus rhythm.

Larger doses may be used after consultation with a paediatric cardiologist.

Preparation and Administration

Intravenous

Withdraw 1mL from a 6mg/2mL adenosine injection and add 9mL of compatible fluid (total volume 10mL) and shake gently to mix. The resulting solution contains 300micrograms/mL.

Dose	60 micrograms	90 micrograms	120 micrograms	150 micrograms	180 micrograms
Volume	0.2mL	0.3mL	0.4mL	0.5mL	0.6mL

For small volumes dilute with 1 to 2mL of sodium chloride 0.9%

Administer into a large vein as a rapid intravenous push (over 1 to 2 seconds) and follow by a rapid sodium chloride 0.9% flush.

Discard diluted solution immediately after use.

Do not refrigerate

Compatible Fluids

Glucose 5%, sodium chloride 0.9%

Adverse Effects

Adverse effects resolve rapidly on stopping treatment due to its short duration of action.

Common

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Flushing, dyspnoea

Infrequent

Transient arrhythmias, recurrence of SVT, hypotension

Monitoring

- Adenosine should only be used when facilities for cardiac monitoring and cardiorespiratory resuscitation exist.
- Continuous electrocardiogram (ECG) is required

Version control and change history

PDS reference: QCE use only

Version	Date from	Date to	Amendment
1.0	November 2012	current	Original version

Practice Points

- Larger doses may be required in patients receiving caffeine
- Doses must be given by rapid intravenous push. Inject dose as close to intravenous site as possible with sufficient flush volume to ensure the bolus dose is administered to patient (and not still contained in the line)
- Adenosine has a very short duration of effect (half-life of less than 10 seconds) making it necessary to give this agent as a rapid bolus. It also means any adverse effects are generally rapidly reversible
- Diluting the ampoule assists with drawing up an accurate dose. Large doses may be given undiluted

Reference

- Australian Resuscitation Council Guideline 12.5 Management of Specific Dysrhythmias in Paediatric Advanced Life Support December 2010

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