adenosine

6mg/2mL injection

Note

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

This is a High Risk Medication ⚠
An overdose can be rapidly fatal.

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.

ISBN number: 978-1-74243-374-5
Endorsed by: South Australian Maternal & Neonatal Clinical Network
Last Revised: 06/11/2012
Contact: South Australian Neonatal Medication Guidelines Workgroup at:
NeoMed@health.sa.gov.au

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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

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.

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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

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

Version control and change history

PDS reference: OCE use only

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

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