South Australian Neonatal Medication Guidelines

Pancuronium

4 mg/2 mL injection (SAS)

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 ⚠

Only muscle-relax a neonate if confident that the airway can be maintained, and that hand ventilation can be provided.

Dose and Indications

For Skeletal Muscle Paralysis in Patients with Assisted Ventilation.

> **Intravenous:**

Weight	Dose*
≤ 1kg	0.1 mg flat dose
> 1kg	0.1 mg/kg/dose

- Repeat one to two hourly if needed. Adjust dose as needed based on duration of paralysis.
- *Dose has been rounded to prevent tenfold errors in babies less than 1 kg.

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Preparation and Administration

Intravenous

- Dilute 1 mL of 2 mg/mL pancuronium solution with 1 mL of compatible fluid (to a total volume of 2 mL).
- The resulting solution contains 1 mg/mL pancuronium.

Dose	0.1 mg	0.2 mg	0.3 mg	0.4 mg	0.5 mg
Volume	0.1 mL	0.2 mL	0.3 mL	0.4 mL	0.5 mL

- Administer as a rapid intravenous push over a few seconds
- Discard remaining solution.

Note: *This product is not registered in Australia and is accessed under the Special Access Scheme (SAS). Please follow local processes for SAS access.*

Compatible Fluids

Glucose 5%, glucose / sodium chloride solutions, sodium chloride 0.9%

Adverse Effects

- Tachycardia, hypotension, increased salivation, prolonged paralysis, hypertension, anaphylactic reactions
- Hypoxaemia may occur because of inadequate mechanical ventilation and deterioration in pulmonary mechanics

Monitoring

- Continuous cardio-respiratory monitoring, pulse oximetry, and close monitoring of blood pressure
- Continuous monitoring of neuromuscular function and assess need for analgesia and sedation
- Fluid balance
- Hepatic and renal function with prolonged use

Practice Points

- Use only if patient is on assisted ventilation.
- Provide eye protection as needed and instil lubricating eye drops every 2 hours
- To reverse the effects of pancuronium; use neostigmine with atropine
- Duration of neuromuscular blockade can be altered by a number of factors including acid-base status, electrolyte disturbances, disease states and concurrent medications
- The manufacturer recommends that pancuronium bromide not be mixed with other drugs in a syringe as possible changes in pH may result in precipitation.

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Neonatal Community of Practice. Pancuronium [Internet]. South Australian Neonatal Medication Guideline. SA Health, Government of South Australia. 2025. 3.1 p. Guideline No.:NMG073. Available from: http://www.sahealth.sa.gov.au/neonatal.

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Document Ownership & History

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If so, which Neonatal Medication Guideline (title)?

Approval Date	Version	Who approved New/Revised Version	Reason for Change
12/07/2025	V3.1	Clinical Guideline Domain Custodian	Formatting updated and no change to content
21/05/2025	V3.0	Clinical Guideline Domain Custodian	Addition of warning regarding benzyl alcohol as excipient
09/04/2021	V2.1	Deputy CE, Commissioning and Performance, SA Department for Health and Wellbeing	Product change
24/04/2018	V2.0	SA Health Safety and Quality Strategic Governance Committee	Formally reviewed in line with 5-year scheduled timeline for review
01/12/2012	V1.0	SA Health Safety and Quality Strategic Governance Committee	Original SA Health Safety and Quality Strategic Governance Committee approved version.

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