South Australian Neonatal Medication Guidelines

Naloxone

400 microgram/mL 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

Caution

Naloxone is **not** recommended as part of the initial resuscitation of newborns with respiratory depression in the delivery suite. Before naloxone is given, practitioners should restore heart rate and colour by supporting ventilation.

Do NOT use naloxone in infants of opioid-dependent mothers as this is likely to precipitate acute withdrawal syndrome.

Dose and Indications

For Opioid-Induced Respiratory Depression When Rapid Titration with Naloxone is Necessary to Reverse Potentially Life-Threatening Effect.

> **Give** intravenous or intramuscular:
  - **100 microgram/kg/dose**, repeated at 2-to-3-minute intervals if required.

For Opioid-Induced Respiratory Depression When There is Risk of Acute Withdrawal, Or When a Continued Therapeutic Effect is Required.

> **Give** Intravenous or intramuscular:
  - **10 microgram/kg/dose**, repeated at 2-to-3-minute intervals if required.

Note: *Where IV access is not available, a dose of 100 microgram/kg IM may be given at birth.*

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Preparation and Administration

Intravenous or Intramuscular:

Naloxone 400 microgram/mL (intravenous, intramuscular)

Dose	100 micrograms	200 micrograms	300 micrograms	400 micrograms
Volume	0.25 mL	0.5 mL	0.75 mL	1 mL

- ***Intravenous:*** Give undiluted as a push over 30 seconds. Small volumes can be further diluted for ease of administration.
- ***Intramuscular:*** Produces erratic and unreliable absorption. Only use intramuscularly if there is no intravenous access.
- Discard remaining solution.

Compatible Fluids

Glucose 5%, sodium chloride 0.9%

Adverse Effects

- Naloxone can precipitate an acute withdrawal syndrome in infants of opioid-dependent mothers including seizures.

Monitoring

- Neonates should receive cardiorespiratory monitoring (e.g. pulse oximetry and respiratory rate as a minimum) for at least 4 hours after naloxone is used, ideally in at least a Level 4 Nursery.

Practice Points

As the action of most opioids is longer than naloxone repeated dosing may be necessary

Subsequent doses should be based on clinical assessment and response of patient. If no response is seen after 2 or 3 doses, respiratory and central nervous depression is probably not secondary to opioids

Suggested citation:

Neonatal Community of Practice. Naloxone [Internet]. Adelaide (AU): South Australian Neonatal Medication Guideline; SA Health, Government of South Australia. 2025. 3 p. Guideline No.: NMG072. Available from: http://www.sahealth.sa.gov.au/neonatal.

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Document Ownership & History

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Does this Neonatal Medication Guideline amend or update and existing Neonatal Medication Guideline? **Y**

If so, which version? **2.0**

Does this Neonatal Medication Guideline replace another Neonatal Medication Guideline with a different title? **N**

If so, which Neonatal Medication Guideline (title)?

Approval Date	Version	Who approved New/Revised Version	Reason for Change
21/05/2025	V3	Clinical Guideline Domain Custodian	Formal review in line with 5-year scheduled timeline for review.
09/11/2017	V2	SA Health Safety and Quality Strategic Governance Committee	Formally reviewed in line with 1–5-year scheduled timeline for review.
11/2012	V1	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.