South Australian Neonatal Medication Guidelines

Vecuronium

10mg 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 ⚠

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

Synonyms

Vecuronium bromide

Dose and Indications

For muscle paralysis in ventilated babies and for intubation

Intravenous

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

The dose may be repeated every 1 to 2 hours or as needed for paralysis.

Consensus decision for babies weighing equal to or less than 1kg to receive a flat dose of 0.1mg to reduce the risk of 10-fold drug error with smaller doses.

Vecuronium

10mg injection

Preparation and Administration

Intravenous

Add 10mL of water for injection to the vial (10mg) and shake gently to dissolve. The resulting solution contains 1mg/mL vecuronium.

Weight (kg)	≤1	1.5	2	2.5	3	3.5
Dose	0.1mg	0.15mg	0.2mg	0.25mg	0.3mg	0.35mg
Volume	0.1mL	0.15mL	0.2mL	0.25mL	0.3mL	0.35mL

Administer as a rapid IV push

Discard remaining solution

Compatible Fluids

Glucose 5%, glucose 5% and sodium chloride 0.9%, sodium chloride 0.9%, Hartmann's

Adverse Effects

Common

Prolonged paralysis

Note: Hypoxaemia may occur because of inadequate mechanical ventilation and deterioration in pulmonary mechanics

Infrequent

Tachycardia and hypotension (particularly when used in combination with opioids)

Rare

Anaphylactic reactions

Monitoring

> Cardiorespiratory and pulse oximetry monitoring are mandatory. Close monitoring of blood pressure (invasive or non-invasive) is recommended.

Practice Points

- Onset of action is 1 to 2 minutes; duration of action is approximately 60 minutes for neonates, however, may be prolonged in preterm neonates and with higher doses.
- Use only if patient is on assisted ventilation.
- Provide eye protection as needed and instil lubricating eye drops every 2 hours.
- Use cautiously in neonates with hepatic or renal impairment and in neonates with fluid and electrolyte imbalance.
- Vecuronium produces less tachycardia and hypotension when compared with pancuronium.
- The neuromuscular blockade of vecuronium is of shorter duration than that of pancuronium.

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17/05/2023	V4	Domain Custodian, Clinical Governance, Safety and Quality	Flat dose for babies weighing equal to or less than 1kg to reduce incidence of medication error
11/08/2017	V3	SA Health Safety and Quality Strategic Governance Committee	Formally reviewed in line with 5 year scheduled timeline for review.
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11/2012	V1	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.