Clinical Guideline
Vecuronium

Policy developed by: SA Maternal, Neonatal & Gynaecology Community of Practice
Approved SA Health Safety & Quality Strategic Governance Committee on:
11 August 2017
Next review due: 31 August 2020

Summary
The purpose of this guideline is to guide nursing, midwifery, medical and pharmacy staff in the dosing and administration of vecuronium

Keywords
vecuronium, neonatal medication guidelines, vecuronium bromide, intubation, muscle relaxant, suxamethonium, pancuronium, tachycardia, neuromuscular blockade

Policy history
Is this a new policy? N
Does this policy amend or update an existing policy? Y v2.0
Does this policy replace an existing policy? N
If so, which policies? Vecuronium Neonatal Medication Guideline

Applies to
All Health Networks
CALHN, SALHN, NALHN, CHSALHN, WCHN, SAAS

Staff impact
All Clinical, Medical, Midwifery, Nursing, Students, Allied Health, Emergency, Mental Health, Pathology, Pharmacy

PDS reference
CG109

Version control and change history

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<th>Version</th>
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<tr>
<td>1.0</td>
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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

0.1mg/kg/dose

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

**PLEASE NOTE:** Babies less than 1kg will require a dose less than 0.1mL. Please ensure you double check your dose calculation.

<table>
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<th>0.5</th>
<th>1</th>
<th>1.5</th>
<th>2</th>
<th>2.5</th>
<th>3</th>
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<tbody>
<tr>
<td>Dose</td>
<td>0.05mg</td>
<td>0.1mg</td>
<td>0.15mg</td>
<td>0.2mg</td>
<td>0.25mg</td>
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<tr>
<td>Volume</td>
<td>0.05mL</td>
<td>0.1mL</td>
<td>0.15mL</td>
<td>0.2mL</td>
<td>0.25mL</td>
<td>0.3mL</td>
<td>0.35mL</td>
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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 infants but may be longer in neonates especially preterm
> 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.

Version control and change history

**PDS reference:** OCE use only

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