



NEONATAL

**VECURONIUM**

**WARNING:  
Paralysing Agent**

This document should be read in conjunction with this [DISCLAIMER](#)

**Highly Restricted:** Requires Neonatologist approval before commencing




**⚠ HIGH RISK Medication**

Inadvertent use in patients without the availability of medical staff skilled in airway support can lead to respiratory arrest, permanent harm, or death.

<b>Presentation</b>	Vial: 10mg powder for reconstitution
<b>Classification</b>	Non-depolarising neuromuscular blocking agent producing skeletal muscle paralysis. Causes less tachycardia and hypotension than pancuronium.
<b>Indication</b>	<ul style="list-style-type: none"> <li>Skeletal muscle relaxation or paralysis in mechanically ventilated infants and infants that are difficult to ventilate</li> <li>Moderately-severe to severe respiratory distress requiring increased ventilator settings</li> </ul>
<b>Dose</b>	<p><b><u>Difficulty ventilating/ Respiratory distress</u></b></p> <p><b>IV:</b></p> <p>Intermittent dosing: 30 -150 microgram /kg /dose Usual dose: 100 microgram/kg Dose may be repeated at intervals of 1 to 2 hours as needed for paralysis.</p> <p><b>Continuous IV infusion:</b></p> <p>Infusion rate: 1 – 1.5 microgram/kg/minute</p>
<b>Monitoring</b>	Monitor vital signs frequently, blood pressure continuously.
<b>Compatible Fluids</b>	Glucose 5%, Sodium chloride 0.9%

<b>Preparation</b>	<p><b><u>IV:</u></b> Reconstitute the 10mg vial with 10mL of Water for Injections Concentration is 10mg/10mL = 1mg/mL</p> <p><b><u>IV Infusion:</u></b> Available from CIVAS (KEMH &amp; PCH) If unavailable prepare as follows:</p> <p><b><i>Step 1: Reconstitution</i></b> Reconstitute the 10mg vial with 10mL of Water for Injections Concentration is 10mg/10mL = 1mg/mL</p> <p><b><i>Step 2: Dilution</i></b> Withdraw 6mg of vecuronium per kg of baby's weight (6mL/kg) and dilute to 50mL with appropriate infusion fluid. This will give the following infusion rates:</p> <ul style="list-style-type: none"> <li>• 0.5 mL/hour = 1 microgram / kg / min</li> <li>• 1 mL/hour = 2 microgram / kg / min</li> <li>• 2 mL/hour = 4 microgram / kg / min</li> <li>•</li> </ul> <p>If a different concentration is required, refer to <a href="#">Calculation of the Composition of Medication Infusions</a></p>
<b>Administration</b>	<p><b><u>IV:</u></b> Over 5-10 seconds Onset of action: 1-2 minutes</p> <p><b><u>Continuous infusion</u></b> - <i>as per prescribed infusion rate</i></p>
<b>Adverse Reactions</b>	<p><b>Common:</b>, heart rate and blood pressure may decrease when used with opioids <b>Serious:</b> masking of convulsions</p>
<b>Storage</b>	<p>Store at room temperature, below 25°C</p>
<b>Interactions</b>	<p>Aminoglycosides; general anaesthetics, corticosteroids: potentiation of neuromuscular blockade: Adrenaline: antagonism of neuromuscular blockade:.</p>
<b>Notes</b>	<ul style="list-style-type: none"> <li>• Protect from light.</li> <li>• Discard reconstituted vial immediately after use</li> <li>• Use in conjunction with lubricating eye drops during paralysis</li> <li>• Antidote: Neostigmine (See protocol)</li> </ul>

<b>References</b>	<p>Truven Health Analytics. Vecuronium. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 Sep 3]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric &amp; neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2401. 2,p2021-2023.</p> <p>Society of Hospital Pharmacists of Australia. Vecuronium. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2019 Sep 3]. Available from: <a href="http://aidh.hcn.com.au">http://aidh.hcn.com.au</a></p>
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Document owner:	Head of Department - Neonatology		
Author / Reviewer:	KEMH & PCH Pharmacy / Neonatology Directorate		
Date first issued:	October 2008	Version:	4.0
Last reviewed:	September 2019	Next review date:	September 2022
Endorsed by:	Neonatal Directorate Management Group	Date:	September 2019
Standards Applicable:	NSQHS Standards: 1  Governance 3  Infection Control 4  Medication Safety;		
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