



NEONATAL Medication Monograph

PANCURONIUM


WARNING:
Paralysing Agent

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

Highly Restricted: Requires Neonatologist or Anaesthetist approval before commencing

SAS Category A (item requires approval by TGA)





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.

Presentation	Ampoule: 4mg/2mL = 2mg/mL = 2000microgram/mL
Description	Long acting non-depolarising neuromuscular blocking agent
Indications	Skeletal muscle relaxation or paralysis to facilitate mechanical ventilation
Contraindications	Hypersensitivity to pancuronium, bromide, or any component of the formulation
Precautions	Use with caution in patients with renal and/or hepatic impairment Certain clinical conditions may result in potentiation or antagonism of neuromuscular blockade: <ul style="list-style-type: none"> Antagonism: hypothermia, respiratory alkalosis, hypercalcaemia, peripheral neuropathies Potentiation: acidosis, dehydration, hypokalaemia, hypermagnesaemia, hypocalcaemia
Dosage	IV: 100 microgram/ kg/ dose initially , followed by 50microgam/kg/dose repeated as necessary Dose may be repeated after 1 to 2 hours as needed <i>May be administered via Continuous Infusion –refer to consultant</i>
Dosage Adjustment	Adjust dose as needed based on duration of paralysis

Adverse Reactions	Common: Tachycardia, blood pressure changes, increased salivation, apnoea, miosis
	Serious: Hypoxemia (due to inadequate mechanical ventilation and deterioration in pulmonary mechanics)
Compatible Fluids	Sodium Chloride 0.9%, Glucose 5%
Preparation	<p>IV:</p> <p>Withdraw 2 mL (4mg) of pancuronium and make to a final volume of 8mL with a compatible fluid.</p> <p>Concentration is 4mg/ 8mL = 4000microgram/8mL</p> <p>Final concentration = <u>500microgam/mL</u></p>
Administration	Administer via IV push over 5 to 10 seconds
Monitoring	Frequent monitoring of vital signs, continuous blood pressure monitoring
Interactions	<p><i>There are a number of interactions with pancuronium, below is a short list of commonly used neonatal medications – please contact Pharmacy for further information</i></p> <p>Cardiac glycosides- pancuronium increases the risk of developing arrhythmias.</p> <p>Drugs that potentiate the effect of pancuronium:</p> <ul style="list-style-type: none"> • Anaesthetics:, isoflurane,ketamine and fentanyl. • Other drugs: gentamicin, piperacillin, propranolol, intravenous lignocaine (high dose), magnesium sulfate, diuretics, phenytoin, metronidazole and magnesium salts, magnesium ions and citrate anticoagulated blood • Drugs which are associated with a significant risk of hypokalaemia e.g. amphotericin B, cisplatin, corticosteroids, loop diuretics, thiazide diuretics • Suxamethonium—prior administration can potentiate the effect of pancuronium <p>Drugs that decrease the effect of pancuronium:</p> <ul style="list-style-type: none"> • Neostigmine, adrenaline (epinephrine), azathioprine, theophylline (high dose), potassium chloride, sodium chloride and calcium chloride • 2. Hydrocortisone and prednisolone can decrease the effect of pancuronium

Storage	Refrigerate at 2 to 8° C, Do not freeze
Notes	<p>Antidote: Neostigmine in combination with Atropine</p> <p>Recommend to use eye lubrication</p> <p>SAS Category A Form to be Completed</p>
Related clinical guidelines	<p>Congenital Diaphragmatic Hernia (CDH)</p> <p>Intubation and Ventilation</p>
References	<p>Truven Health Analytics. Pancuronium. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2020 [cited 2020 Apr 08]. Available from: https://neofax.micromedexsolutions.com/</p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2020. P1524.</p> <p>Australian Medicines Handbook. Pancuronium. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2020 [cited 2020 Apr 08]. Available from: https://amhonline.amh.net.au/</p> <p>British National Formulary. BNF for Children. 2018-19 ed. London, UK: BMJ Group and Pharmaceutical Press; 2018. p. 815.</p>

Keywords:	Pancuronium, mechanical ventilation, paralysis, neuromuscular blockade		
Publishing:	<input checked="" type="checkbox"/> Intranet	<input checked="" type="checkbox"/> Internet	
Document owner:	Head of Department - Neonatology		
Author / Reviewer:	KEMH & PCH Pharmacy / Neonatology Directorate		
Date first issued:	October 2009	Version:	3.0
Last reviewed:	April 2020	Next review date:	April 2023
Endorsed by:	Neonatal Directorate Management Group	Date:	April 2020
Standards Applicable:	NSQHS Standards: 1  Governance, 3  Infection Control, 4  Medication Safety, 8  Acute Deterioration		
<p>Printed or personally saved electronic copies of this document are considered uncontrolled.</p> <p>Access the current version from the WNHS website.</p> <p>For any enquiries relating to this guideline, please email KEMH.PharmacyAdmin@health.wa.gov.au</p>			

© Department of Health Western Australia 2019