



NEONATAL Medication Monograph

# GLUCAGON




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

**Restricted:** Requires Neonatologist review within 24 hours of initiation

<b>Presentation</b>	<b>Vial:</b> 1mg powder 1mL syringe of water for injections as diluent
<b>Description</b>	A pancreatic hormone which increases blood glucose concentrations by stimulating hepatic glycogenolysis and gluconeogenesis
<b>Indications</b>	For prolonged hypoglycaemia unresponsive to routine therapy
<b>Contraindications</b>	Pheochromocytoma, insulinoma
<b>Dosage</b>	<b><u>Hypoglycaemia</u></b>  <b>IV/ IM</b> 100-200 microgram/ kg Maximum dose 1mg Dose may be repeated in 20 minutes if IV access unable to be obtained/ as required.  <b>Intravenous Infusion:</b> 10-20 microgram/kg/hour
<b>Dosage Adjustment</b>	<i>Contact senior staff prior to further adjustments</i>
<b>Adverse Reactions</b>	<b>Common:</b> nausea, vomiting, tachycardia, hyponatraemia , hypokalaemia
	<b>Serious:</b> allergic reactions
<b>Compatible Fluids</b>	Glucose 5%, Glucose 10%, Sodium Chloride 0.9%

<b>Preparation</b>	<p><b><u>IV/IM:</u></b></p> <p><b>Reconstitution</b></p> <p>Dilute powder with diluent supplied.</p> <p><u>Final concentration is 1000 microgram/mL</u></p> <p><b><u>IV Infusion :</u></b></p> <p><b>To prepare infusion:</b></p> <p><b>Dilution</b></p> <p>Reconstitute vial as above</p> <p>Take 250microgram (0.25mL) of the above solution per kilogram of baby's weight and make to a final volume of 50mL with a compatible fluid.</p> <p>Concentration = 5microgram/kg/hour = 1mL/hour</p>
<b>Administration</b>	<p><b><u>IM:</u></b> As per NCCU policy</p> <p><b><u>IV:</u></b> over 1 minute</p> <p><b><u>Intravenous infusion:</u></b> via syringe pump</p>
<b>Monitoring</b>	<p>Monitor plasma glucose levels and adjust drug dose accordingly.</p> <p>Monitor for rebound hypoglycaemia</p> <p>Monitor electrolytes</p>
<b>Storage</b>	<p>Store at room temperature, below 25°C in original packaging to protect from light</p>
<b>Notes</b>	<p>1mg is equivalent to 1 unit of activity.</p> <p>Inadequate reversal of hypoglycaemia due to low levels of releasable glucose in the liver may occur in patients with adrenal insufficiency, chronic hypoglycaemia, prolonged fasting, or starvation</p>
<b>Related clinical guidelines</b>	<p><a href="#">Hypoglycaemia</a></p> <p><a href="#">NETS Hypoglycaemia</a></p>

<b>References</b>	<p>Truven Health Analytics. Glucagon. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 Oct 10]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>Society of Hospital Pharmacists of Australia. Glucagon. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2020 Feb 07]. Available from: <a href="http://aidh.hcn.com.au">http://aidh.hcn.com.au</a></p> <p>Ainsworth SB. Neonatal formulary 7: drug use in pregnancy and the first year of life. Seventh ed. Chichester (West Sussex): John Wiley &amp; Sons Inc.; 2015. p239</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; 2019. P934-5.</p>
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