



NEONATAL Medication Monograph

HYDROCORTISONE




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

Restricted: Requires Neonatologist or relevant specialist review within 24 hours of initiation

Presentation	<p>Vial: 100mg (powder for reconstitution)</p> <p>Oral Solution: 1mg/mL, 10mg/mL (Prepared in Pharmacy)</p>									
Description	Corticosteroid – Glucocorticoid									
Indications	<ul style="list-style-type: none"> Physiological replacement in hypoadrenalism Relative adrenal insufficiency (RAI) in sick neonate where hypotension is refractive to inotropic agents and random cortisol <414nmol/L Short term adjunct therapy for Intractable Hypoglycaemia 									
Contraindications	Systemic fungal infection									
Precautions	<p>Untreated systemic bacterial infections</p> <p>Use with caution in patient with renal impairment, hypothyroidism or cardiac disease</p> <p>Prolonged corticosteroid Use</p>									
Dosage	<p><u>Physiological replacement (Hypoadrenalism)</u></p> <p><i>Consult endocrinologist</i></p> <p><u>IV/Oral</u></p> <p>8 to 18 mg/m² per day in 2 or 3 divided doses</p> <p><u>Hypotension refractive to inotrope in patients with RAI</u></p> <table border="1"> <thead> <tr> <th>CGA</th> <th>Dose</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>< 35 weeks</td> <td>1mg/ kg/ dose</td> <td>Every 12 hours</td> </tr> <tr> <td>≥ 35 weeks</td> <td>1mg/ kg/ dose</td> <td>Every 8 hours</td> </tr> </tbody> </table> <p>Stop if random cortisol > 414nmol/L. Use for least possible duration, until stable off inotropes. Usually 2-5 days.</p> <p><u>Intractable Hypoglycaemia</u></p> <p><u>IV/Oral:</u> 1-2mg/ kg/ dose every 6 hours</p>	CGA	Dose	Frequency	< 35 weeks	1mg/ kg/ dose	Every 12 hours	≥ 35 weeks	1mg/ kg/ dose	Every 8 hours
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Dosage Adjustment	Withdraw therapy with gradual tapering after prolonged use
Adverse Reactions	Common: abdominal distension, oesophagitis, impaired wound healing hypertension, hyperglycaemia, petechiae
	Serious: hypokalaemia, convulsions, growth suppression
Interactions	Concurrent use with NSAID (increases risk of GI perforation)
Compatible Fluids	Sodium chloride 0.9%, Glucose 5%
Preparation	<p><i>Use solution prepared in Pharmacy if available.</i></p> <p><u>IV Push:</u></p> <p><i>Reconstitution</i> Add 2mL of Water for Injections or Sodium Chloride 0.9% to 100mg powder for reconstitution Concentration is 100mg/2mL <u>Final concentration is 50mg/mL</u></p> <p>May be further diluted if required</p> <p><i>Dilution</i> Take 2mL (100mg) of the above solution and dilute it to 10mL with a compatible fluid. Concentration is 100mg/10mL <u>Final concentration is 10 mg/mL</u></p> <p><u>IV Infusion:</u></p> <p><i>Reconstitution</i> Add 2mL of Water for Injections or Sodium Chloride 0.9% to 100mg powder for reconstitution Concentration is 100mg/2mL</p> <p><i>Dilution</i> Take 1mL (50mg) of the above solution and dilute it to 50mL with a compatible fluid. Concentration is 50mg/50mL <u>Final concentration is 1mg/mL</u></p> <p><u>Oral:</u> Use solution prepared in Pharmacy</p>

Administration	<p><u>IV Push</u> : Over 3-5 minutes</p> <p><u>IV Infusion</u>: Infuse over 10 to 30 minutes</p> <p><u>Oral</u>: Given with or immediately after feeds.</p>														
Monitoring	<p>Blood pressure and blood glucose frequently during acute illness.</p> <p>In primary adrenal insufficiency, growth velocity, body weight, blood pressure, blood glucose, electrolytes, bone mineral density</p>														
Storage	Store at room temperature, below 25°C														
Notes	<p>Body Surface Area:</p> <table border="1"> <thead> <tr> <th>Weight (Kg)</th> <th>Surface area (sq. meters)</th> </tr> </thead> <tbody> <tr> <td>0.6</td> <td>0.08</td> </tr> <tr> <td>1</td> <td>0.1</td> </tr> <tr> <td>1.4</td> <td>0.12</td> </tr> <tr> <td>2</td> <td>0.15</td> </tr> <tr> <td>3</td> <td>0.2</td> </tr> <tr> <td>4</td> <td>0.25</td> </tr> </tbody> </table> <p>*BSA (m²)= (0.05 x kg) + 0.05</p>	Weight (Kg)	Surface area (sq. meters)	0.6	0.08	1	0.1	1.4	0.12	2	0.15	3	0.2	4	0.25
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Related clinical guidelines	Cortisol Estimation and ACTH Stimulation Testing														
References	<p>British National Formulary for Children. Hydrocortisone. In: BNF 2018-2019 London (United Kingdom): BMJ Group 2018 Truven Health Analytics. Hydrocortisone. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2020 [cited 2020 Feb 23]. Available from: https://neofax.micromedexsolutions.com/</p> <p>Society of Hospital Pharmacists of Australia. Hydrocortisone In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2020 [cited 2020 Feb 23] Available from: http://aidh.hcn.com.au</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; 2401. 2, p991.</p>														

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