



NEONATAL Medication Monograph

# DEXAMETHASONE





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

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

<b>Presentation</b>	Ampoule: 4 mg/mL (4000 microgram/mL) Oral Solution : 1 mg/mL (1000 microgram/mL)																				
<b>Description</b>	Long acting synthetic glucocorticoid (adrenal steroid hormone), anti-inflammatory and immunosuppressive																				
<b>Indications</b>	<ul style="list-style-type: none"> <li>Facilitating extubation in ventilated babies with evolving or established chronic lung disease.</li> <li>For respiratory insufficiency and oedema with acute non-infectious laryngospasm.</li> <li>Prevention of post intubation stridor in neonates who have had repeated, traumatic or prolonged intubation.</li> </ul>																				
<b>Precautions</b>	Caution in patients with severe fungal infections																				
<b>Dosage</b>	<p><b><u>Facilitating extubation in ventilated babies with evolving or established chronic lung disease (Low dose DART Regimen)</u></b></p> <p>Note - The weaning regime can be shortened or lengthened depending on the infants clinical response</p> <p><b>IV/Oral:</b></p> <table border="1"> <thead> <tr> <th>Day</th> <th>Dose</th> <th>Frequency</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td>Day 1-3</td> <td>75 microgram/ kg/ dose</td> <td>12 hourly</td> <td>72 hours</td> </tr> <tr> <td>Day 4-6</td> <td>50 microgram/ kg/ dose</td> <td>12 hourly</td> <td>72 hours</td> </tr> <tr> <td>Day 7-8</td> <td>25 microgram/ kg/ dose</td> <td>12 hourly</td> <td>48 hours</td> </tr> <tr> <td>Day 9-10</td> <td>10 microgram/ kg/ dose</td> <td>12 hourly</td> <td>48 hours</td> </tr> </tbody> </table> <p><b><u>Post Intubation Stridor</u></b></p> <p><b>IV/Oral:</b></p> <p>250 microgram/ kg/ dose every 8 hours for a total of 3 doses Recommended to begin at least 4 to 12 hours prior to extubation</p>	Day	Dose	Frequency	Duration	Day 1-3	75 microgram/ kg/ dose	12 hourly	72 hours	Day 4-6	50 microgram/ kg/ dose	12 hourly	72 hours	Day 7-8	25 microgram/ kg/ dose	12 hourly	48 hours	Day 9-10	10 microgram/ kg/ dose	12 hourly	48 hours
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<b>Dosage Adjustment</b>	Adjust dose according to response as per consultant advice
<b>Adverse Reactions</b>	<b>Common:</b> hyperglycaemia, hypertension, behavioural disturbances, increase in urinary calcium excretion, sodium and water retention
	<b>Serious:</b> sepsis, masking of signs of infection, adrenal suppression, acute adrenal insufficiency in abrupt withdrawal, G.I. bleeding, osteoporosis, fractures, growth restriction, increased risk of cerebral palsy, delayed wound healing, skin atrophy, cushingoid appearance
<b>Interactions</b>	Avoid concurrent use with Indomethacin for PDA treatment
<b>Compatible Fluids</b>	Sodium Chloride 0.9%, Glucose 5%
<b>Preparation</b>	<p><b>IV:</b> Available from CIVAS (KEMH/PCH)</p> <p>Withdraw 0.5mL (2mg) of dexamethasone and add 19.5mL of compatible fluid.</p> <p>Concentration = 2mg/20mL = 2000microgram/20mL</p> <p><u>Final Concentration = 100microgram/mL</u></p> <p><b>Oral:</b></p> <p><i>For doses less than 100micrograms</i></p> <p>Take 1mL (1000 micrograms) of oral dexamethasone solution and dilute to a final volume of 10mL with Water for Irrigation.</p> <p><u>Concentration = 1000microgam/10mL = 100microgam/mL</u></p>
<b>Administration</b>	<p><b>IV:</b></p> <p>Slow push: over 3-5 minutes</p> <p><b>Oral:</b></p> <p>Give with or immediately after feeds to minimise gastric irritation</p>
<b>Monitoring</b>	<p>Monitor blood glucose levels , blood pressure , electrolytes</p> <p>Bone bloods for long term therapy. Signs and symptoms of sepsis</p>
<b>Storage</b>	<b>IV/ Oral:</b> Store at room temperature, below 25°C

<b>References</b>	<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. p 175.</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. p584.</p> <p>Australian Medicines Handbook. Dexamethasone. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2019 [cited 2020 Jan 20]. Available from: <a href="https://amhonline.amh.net.au/">https://amhonline.amh.net.au/</a></p> <p>Truven Health Analytics. Title e.g. Dexamethasone. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2020 Jan 20]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>Society of Hospital Pharmacists of Australia. Dexamethasone. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2020 Jan 20]. Available from: <a href="http://aidh.hcn.com.au">http://aidh.hcn.com.au</a></p> <p>Plover C, Porrello E. Paediatric injectable guidelines 2019 ed. Flemington (Victoria): The Royal Children's Hospital Melbourne; 2019. p. 33</p> <p>DART Regimen Paediatric Research. 2004 Sep; 56(3):477.</p>
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