

**DEXAMETHASONE**

<b>Trade Name</b>	Dexamethasone Sodium Phosphate Injection (Panpharma) Dexamethasone Oral Solution 1 mg/mL (Biomed)			
<b>Class</b>	Glucocorticoid			
<b>Mechanism of Action</b>	Stabilises lysosomal and cell membranes, inhibits complement induced granulocyte aggregation, improves integrity of alveolar-capillary barrier, inhibits prostaglandin and leukotrienes, right shift of oxygen dissociation curve, increase surfactant production, decreases pulmonary oedema, relaxes bronchospasm			
<b>Indications</b>	<b>Indication 1:</b> Chronic lung disease <b>Indication 2:</b> Laryngeal oedema post extubation			
<b>Contraindications</b>	Obstructive cardiomyopathy, fungal sepsis, hyperglycaemia, hypertension			
<b>Supplied As</b>	<b>Injection:</b> 4mg/1mL ampoule* see comments box <b>Oral:</b> 1mg/mL solution			
<b>Dilution</b>	<b>Drug</b>	<b>Water Added</b>	<b>Final Volume</b>	<b>Concentration</b>
	0.25mL (1mg)	0.75mL	1mL	<b>1mg/mL</b>
<b>Dosage / Interval</b>	<p><b>Indication 1:</b>  0.075mg/kg/dose 12 hourly on D1-3, (0.15mg/kg/day)  0.05mg/kg/dose 12 hourly on D4-6, (0.10mg/kg/day)  ..... then after a 24hr interval give.....  0.05mg/kg/dose daily on D7-8, (0.05mg/kg/day)  0.02mg/kg/dose daily on D9-10. (0.02mg/kg/day)</p> <p><b>Indication 2:</b>  0.075mg/kg/dose 12 hourly for 2 doses</p>			
<b>Administration</b>	Oral IV slow push			
<b>Compatible With</b>	Dextrose 5 and 10%, sodium chloride 0.9%. <b>Y site:</b> Aciclovir, adrenaline, amikacin, aminophylline, aztreonam, caffeine citrate, cefepime, cimetidine, famotidine, fentanyl, fluconazole, furosemide, heparin, hydrocortisone succinate, lidocaine, linezolid, lorazepam, meropenem, methadone, metoclopramide, milrinone, morphine, phenobarbital, piperacillin/tazobactam, potassium chloride, propofol, ranitidine, remifentanyl, sodium bicarbonate, and zidovudine. TPN, Lipid * gentamicin variable compatibility use a separate line if possible			

<b>Incompatible With</b>	Amiodarone, amphotericin B, cefuroxime, ciprofloxacin, diazepam, diazoxide, dobutamine, magnesium sulphate, midazolam, phenytoin, sulphamethoxazole/trimethoprim, tobramycin.
<b>Monitoring</b>	Glucose monitoring and glycosuria testing , Blood pressure monitoring, electrolytes
<b>Stability</b>	<b>IV:</b> Discard vial after use and use a new vial for each dose Vials are not designed for multidosing Discard any unused reconstituted solution <b>Oral:</b> Stable for 7 days if refrigerated
<b>Storage</b>	IV: Room temperature, protect from light Oral: Fridge
<b>Adverse Reactions</b>	Hyperglycaemia, hypertension, G-I haemorrhage, electrolyte disturbance with increased urinary calcium excretion, increased risk for sepsis, growth inhibition, elevated white blood count. Increased protein catabolism, suppresses ACTH secretion
<b>Metabolism</b>	Biologic half-life 36-54 hours
<b>Comments</b>	<b>Caution (Sept 22):</b> there are now two brands of dexamethasone injection available. <b>Do not use the Hameln Dexamethasone 4mg/2mL product for neonates, it contains propylene glycol.</b>  If steroid course for CLD ineffective stop after 5 days. Administer prophylactic oral antifungals (ie: nystatin) while on dexamethasone
<b>References</b>	<ol style="list-style-type: none"> <li>1. Trissel Handbook on Injectable Drugs 10<sup>th</sup> Edition</li> <li>2. NZHPA Handbook of Injectable Drugs 5<sup>th</sup> Edition</li> <li>3. DART study protocol</li> <li>4. Pediatrics 1999; 104:91-9</li> <li>5. Biology of Neonate 1998; 73:34-9 (PIE)</li> </ol>
<b>Updated By</b>	<p>N Austin                                      March 2001 P Schmidt, B Robertshawe            May 2006 A Lynn, B Robertshawe                March 2008 A Lynn, B Robertshawe                June 2012 (re-order profile)    Nov 2012 (discard vial) A Lynn, M Wallenstein, B Robertshawe December 2020 (routine review) A Lynn, B Robertshawe                September 2022 (caution re Hameln Brand)</p>