

# PREDNISOLONE

<b>Indication</b>	<ul style="list-style-type: none"> <li>Respiratory disorders<sup>1</sup>, infantile spasms<sup>1</sup>, nephrotic syndrome<sup>1,2</sup></li> <li>Autoimmune inflammatory disorders<sup>3</sup>, autoimmune hepatitis<sup>2</sup></li> <li>Corticosteroid replacement therapy<sup>2</sup></li> </ul>	
<b>ORAL</b>	<b>Presentation</b>	<ul style="list-style-type: none"> <li>Oral solution: 5 mg in 1 mL</li> </ul>
	<b>Dosage</b> <sup>3-7</sup>	<ul style="list-style-type: none"> <li>1–2 mg/kg/day               <ul style="list-style-type: none"> <li>May be given as a daily dose or in divided doses at SMO discretion</li> <li>Wean slowly based on condition as per SMO direction</li> </ul> </li> </ul>
	<b>Preparation</b>	<ul style="list-style-type: none"> <li>Draw up prescribed dose into oral/enteral syringe</li> </ul>
	<b>Administration</b>	<ul style="list-style-type: none"> <li>Oral/OGT/NGT with feed to reduce stomach upset<sup>3</sup></li> </ul>
<b>Special considerations</b>	<ul style="list-style-type: none"> <li>Seek expert advice regarding dosing/weaning regimen as required</li> <li><i>Example</i> weekly weaning regimen<sup>4</sup> <ul style="list-style-type: none"> <li>Week 1: FROM 2 mg/kg/day TO 1 mg/kg/day</li> <li>Week 2: FROM 1 mg/kg/day TO 0.5 mg/kg/day</li> <li>Week 3: FROM 0.5 mg/kg/day daily TO 0.5 mg/kg/day three times per week</li> <li>Week 4: Trial discontinuation</li> </ul> </li> </ul>	
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>Serum potassium as per SMO direction</li> <li>If chronic use at pharmacological doses, growth and development<sup>1</sup></li> <li>Signs of infection<sup>5</sup></li> <li>BGL</li> </ul>	
<b>Compatibility</b>	<ul style="list-style-type: none"> <li>Nil relevant</li> </ul>	
<b>Incompatibility</b>	<ul style="list-style-type: none"> <li>Nil relevant</li> </ul>	
<b>Interactions</b>	<ul style="list-style-type: none"> <li>Administration with other medications that also reduce potassium concentration may increase this risk of hypokalaemia<sup>5</sup></li> </ul>	
<b>Stability</b>	<ul style="list-style-type: none"> <li>Check manufacture recommendations for storage as varies by brand</li> <li>Discard 4 weeks after opening<sup>1</sup> or as per local infection control policy (limited evidence)</li> </ul>	
<b>Side effects</b>	<ul style="list-style-type: none"> <li>Blood pathology: hypokalaemia<sup>6</sup>, hyperglycaemia<sup>6</sup></li> <li>Circulatory: sodium and water retention<sup>6</sup>, oedema<sup>6</sup>, hypertension</li> <li>Integumentary: delayed wound healing<sup>6</sup>, skin atrophy<sup>6</sup>, bruising<sup>6</sup></li> <li>Endocrine: adrenal suppression</li> <li>Musculo-skeletal: growth retardation in children<sup>1</sup>, muscle weakness<sup>6</sup>, weight gain<sup>1</sup></li> </ul>	
<b>Actions</b>	<ul style="list-style-type: none"> <li>Synthetic glucocorticoid with anti-inflammatory process, and promotion of gluconeogenesis<sup>6</sup></li> <li>Exceeds hydrocortisone in glucocorticoid and anti-inflammatory activity, being about three times more potent on a weight basis than the parent hormone but is considerably less active than hydrocortisone in mineralocorticoid activity<sup>6</sup></li> </ul>	
<b>Abbreviations</b>	BGL: blood glucose level, OGT: orogastric, NGT: nasogastric, SMO: most senior medical officer	
<b>Keywords</b>	Prednisolone sodium phosphate, prednisolone, corticosteroids, glucocorticoid	



The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

## References

1. Therapeutic Goods Administration (TGA). Prednisolone sodium phosphate. [Internet]. Canberra: Australian Government; April 2021 [cited 2021 July 27]. Available from: <https://www.tga.gov.au>.
2. British National Formulary for Children (BNFC) online. Prednisolone. [Internet]: Royal Pharmaceutical Society; May 2021 [cited 2021 July 29]. Available from: <https://www.medicinescomplete.com>.
3. Australian Medicines Handbook Children's Dosing Companion. Prednisolone. [Internet]. Adelaide: Australian Medicines Handbook Pty Ltd; July 2021 [cited 2021 July 28]. Available from: <https://amhonline.amh.net.au>.
4. Linafelter A, Cuna A, Liu C, Quigley A, Truog WE, Sampath V, et al. Extended course of prednisolone in infants with severe bronchopulmonary dysplasia. *Early Human Development* 2019;136:1-6.
5. Australian Medicines Handbook. Prednisolone. [Internet]. Adelaide: Australian Medicines Handbook Pty Ltd; July 2021 [cited 2021 July 28]. Available from: <https://amhonline.amh.net.au>.
6. MIMS Online. Prednisolone sodium phosphate. [Internet]: MIMS Australia; June 2021 [cited 2021 July 28]. Available from: <https://www.mimsonline.com.au>.
7. Htun ZT, Schulz EV, Desai RK, Marasch JL, McPherson CC, Mastrandrea LD, et al. Postnatal steroid management in preterm infants with evolving bronchopulmonary dysplasia. *J Perinatol* 2021;41(8):1783-96.

## Document history

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