

**NEONATAL MEDICATION PROTOCOLS**

**HYDROCORTISONE**  
 Created by: NCCU  
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NCCU Clinical Guidelines  
 KEMH/PMH  
 Perth, Western Australia

<b>DRUG:</b>	<b>HYDROCORTISONE</b>																
<b>PRESENTATION:</b>	Vial: 100mg Oral Solution: 1mg/mL, 10mg/mL (Prepared in Pharmacy).																
<b>ACTION &amp; INDICATION:</b>	Corticosteroid used in: (i) Replacement therapy in adrenal insufficiency (ii) Relative adrenal insufficiency (RAI) in sick neonate where hypotension is refractive to inotropic agents and random cortisol <414nmol/L (iii) Intractable hypoglycaemia																
<b>DOSE:</b>	<u>Physiological replacement:</u> Oral : 8 to 18 mg/m <sup>2</sup> per day divided into 3 doses IV: 8 to 18 mg/m <sup>2</sup> per day divided into 4 hourly doses <u>Relative Adrenal Insufficiency:</u> Term neonate >35/40 gestation 1mg/kg/dose 6-8 hourly Preterm neonate <35/40 gestation 1mg/kg/dose 12 hourly Stop if random cortisol >414nmol/L. Use for least possible duration, until stable off inotropes. Usually 2-5 days. <u>Intractable hypoglycaemia:</u> IV/ Oral: 1-2mg/kg/dose 6 hourly																
<b>PREPARATION:</b>	Diluent: Water for Injections or sodium chloride 0.9% Add 1.5mL of diluent to each vial, then withdraw and dilute to 2mL = 100mg/2mL May be further diluted if required, that is, take 2mL of the above solution and dilute it to 10mL = 10 mg/mL																
<b>ADMINISTRATION:</b>	IV: Over 3-5 minutes Oral: Given with or immediately after feeds.																
<b>ADVERSE EFFECTS:</b>	Hypokalaemia, abdominal distension, oesophagitis, impaired wound healing, petechiae, convulsions, growth suppression, hypertension, hyperglycaemia. Gastric perforation when given in combination with NSAIDs. Contraindication - Systemic fungal infection.																
<b>COMMENTS:</b>	Discard reconstituted parenteral solution immediately after use. Body Surface Area: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Weight(Kg)</th> <th>Surface Area (sq.metres)</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> <tr><td colspan="2">*BSA (m<sup>2</sup>) = (0.05 x kg)+0.05</td></tr> </tbody> </table>	Weight(Kg)	Surface Area (sq.metres)	0.6	0.08	1	0.1	1.4	0.12	2	0.15	3	0.2	4	0.25	*BSA (m <sup>2</sup> ) = (0.05 x kg)+0.05	
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<b>REFERENCES:</b>	1. Pediatric Dosage Handbook 17 <sup>th</sup> Ed Lexicomp 2. Paediatric Pharmacopoeia 13 <sup>th</sup> Ed Royal Children's Hospital Melbourne 3. Neofax 2012 4. Neonatal Pharmacopoeia 2 <sup>nd</sup> Ed Royal Women's Hospital Melbourne 5. Sperling Pediatric Endocrinology 2006 Lifshitz Pediatric Endocrinology 2007 Brook Clinical Paediatric Endocrinology 2007																
<b>DATE:</b>	April 2014																