



NEONATAL

ACICLOVIR

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

Restricted: Requires Neonatologist/Microbiologist review within 24 hours of initiation




⚠ HIGH RISK Medication

Administration of undiluted IV aciclovir can cause severe extravasation injury.
Ensure IV aciclovir is prepared as described below.

Presentation	Ampoule: 250mg/10mL										
Classification	Antiviral agent										
Indication	Treatment or prophylaxis of neonatal herpes simplex virus (HSV) type I and II. Treatment or prophylaxis of varicella zoster virus infection (VZV).										
Dose	<p>IV:</p> <table border="1"> <thead> <tr> <th><u>Corrected Gestational age</u></th> <th><u>Dose</u></th> <th><u>Frequency</u></th> </tr> </thead> <tbody> <tr> <td>< 30 weeks</td> <td>20mg/kg/dose</td> <td>Every 12 hours</td> </tr> <tr> <td>≥ 30 weeks</td> <td>20mg/kg/dose</td> <td>Every 8 hours</td> </tr> </tbody> </table> <p>Renal Impairment: Dose adjustment is required in renal impairment. Consult microbiologist or neonatal pharmacist.</p> <p>Oral: Oral route is not recommended in neonates as absorption is erratic. Consult microbiologist regarding therapy for long term oral suppressive therapy.</p>		<u>Corrected Gestational age</u>	<u>Dose</u>	<u>Frequency</u>	< 30 weeks	20mg/kg/dose	Every 12 hours	≥ 30 weeks	20mg/kg/dose	Every 8 hours
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Monitoring	<p>Urine output, renal and hepatic function.</p> <p>Full Blood Count (FBC) – can cause neutropenia</p> <p>Aciclovir can crystalize out in the renal tubules and present as haematuria.</p>	
Dose Adjustment	Adjust dose in renal impairment	
Guidelines & Resources	Herpes Simplex Virus (HSV) Neonatology Clinical Practice Guideline	
Compatible Fluids	Glucose 5%, Sodium chloride 0.9%	
Preparation	<p>IV: (available from CIVAS)</p> <p>Dilution</p> <p>Dilute 2mL (50mg) of aciclovir solution to 10mL with compatible fluid</p> <p>Total volume is 10mL.</p> <p><u>Final concentration is 5mg/mL</u></p>	
Administration	<p>IV Infusion: Infuse over 60 minutes.</p> <p>Discard the solution if any visual turbidity or crystallisation occurs before or during administration.</p> <p>Use central line if available.</p> <p>Aciclovir is highly alkaline and can cause severe extravasation injury.</p> <p><u>Empirical therapy:</u> may be given via a peripheral line.</p> <p><u>Long term treatment:</u> consider giving via a central line.</p>	
Adverse Reactions	<p>Common</p> <p>Serious</p>	<p>diarrhoea, encephalopathy, extravasation, neutropenia, hypotension</p> <p>Renal impairment, seizures leucopenia, crystalluria, hepatitis, Stevens-Johnson syndrome</p>
Storage	<p>Store at room temperature – below 25°C</p> <p>Do NOT refrigerate - may result in crystallisation.</p>	
Interactions	<p>adrenaline, dobutamine , dopamine, midazolam</p> <p>Contact pharmacy for further information</p>	

Notes	Duration: Should be discussed with clinical microbiologist.
References	<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. 23rd ed. Hudson (Ohio): Lexicomp; 2017. 2,401 p. 58</p> <p>Truven Health Analytics. Acyclovir. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 Mar 21]. Available from: https://neofax.micromedexsolutions.com/</p> <p>Society of Hospital Pharmacists of Australia. Aciclovir. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2019 Mar 21]. Available from: http://aidh.hcn.com.au</p> <p>Neomed Formularies. Aciclovir. In: The Royal Hospital for Women [Internet]. [South Eastern Sydney, New South Wales; 2018 [cited 2019 Mar 22]. Available from: https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women/neomed-formularies</p>

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