

ACICLOVIR

Read in conjunction with [Disclaimer](#)

! HIGH RISK Medication !

Formulary: Restricted Requires Neonatologist/Microbiologist review within 24 hours of initiation	
Presentation	Vial (powder for reconstitution): 250 mg
Drug Class	Antiviral – guanine analogue
Indication	<ul style="list-style-type: none"> • Treatment or prophylaxis of herpes simplex virus (HSV) type I and II. • Treatment or prophylaxis of varicella zoster virus infection (VZV).
Special Considerations	<ul style="list-style-type: none"> • Duration should be discussed with clinical microbiologist. • Oral route is not recommended in neonates as absorption is erratic. Consult microbiologist regarding therapy for long term oral suppressive therapy. • Increased risk of impaired renal function in patients with pre-existing renal disease and dehydration, and with concomitant use of other nephrotoxic drugs.
Monitoring	<ul style="list-style-type: none"> • Urine output, renal and hepatic function. • Full Blood Count (FBC) • Aciclovir can crystalize out in the renal tubules and present as haematuria • IV site for phlebitis – prepare a more dilute infusion solution if phlebitis occurs
Compatibility	Fluids: Sodium Chloride 0.9%, Sodium Chloride 0.45%, Glucose 5% Refer to KEMH Neonatal Medication Guideline: Y-Site IV Compatibility in Neonates .
Incompatibility	Amino acid/glucose solution (TPN), adrenaline (epinephrine), caffeine citrate, cefepime, ciprofloxacin, dobutamine, dopamine, hydralazine, midazolam, paracetamol, phenylephrine, piperacillin/tazobactam (EDTA-free), vecuronium, verapamil.
Interactions	<ul style="list-style-type: none"> • Nephrotoxic drugs (concurrent use) e.g. gentamicin, furosemide. • Ceftriaxone (concurrent use) may cause renal impairment.

Side effects	Common: diarrhoea, vomiting, encephalopathy, extravasation, injection site reactions, hypotension.
	Infrequent: agitation, oedema, constipation, rash, renal impairment.
	Rare: seizures, anaemia, neutropenia, leucopenia, thrombocytopenia, crystalluria, anorexia, hepatitis, urticaria, pruritis, photosensitivity, Stevens-Johnson Syndrome, toxic epidermal necrolysis, anaphylaxis.
Storage & Stability	<ul style="list-style-type: none"> • Store at room temperature, below 25°C. • Do NOT refrigerate (may result in crystallisation). • Discard the solution if visible turbidity or crystallisation appears.

INTRAVENOUS INFUSION	Presentation (for IV use)	Vial (powder for reconstitution): 250 mg Available from CIVAS (KEMH Only): 5 mg/mL										
	Dosage	Treatment or prophylaxis of HSV or VSV <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>Corrected Gestational Age</th> <th>Dose</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Less than 30 weeks</td> <td>20 mg/kg</td> <td>Every 12 hours</td> </tr> <tr> <td>Greater than or equal to 30 weeks</td> <td>20 mg/kg</td> <td>Every 8 hours</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Dose adjustment: <ul style="list-style-type: none"> ○ Renal impairment: dose adjustment is required. Consult microbiologist or neonatal pharmacist. 		Corrected Gestational Age	Dose	Frequency	Less than 30 weeks	20 mg/kg	Every 12 hours	Greater than or equal to 30 weeks	20 mg/kg	Every 8 hours
	Corrected Gestational Age	Dose		Frequency								
	Less than 30 weeks	20 mg/kg		Every 12 hours								
Greater than or equal to 30 weeks	20 mg/kg	Every 8 hours										
Preparation	IV infusion: Step 1 Reconstitution: Add 10 mL of water for injections or sodium chloride 0.9% to a 250 mg vial. Step 2 Dilution: Draw up 50 mg (2 mL) and make up to 10 mL total volume with compatible fluid. Concentration is now equal to 5 mg/mL											
Administration	IV infusion: Infuse via syringe driver pump over 60 minutes. <ul style="list-style-type: none"> • Discard the solution if any visual turbidity or crystallisation occurs before or during administration. • Rapid rate of infusion may lead to renal tubular damage & impaired renal function. Use central line if available Aciclovir is highly alkaline and can cause severe extravasation injury (<i>Risk of phlebitis and extravasation increases at concentrations greater than 10 mg/mL</i>). <ul style="list-style-type: none"> • <u>Empirical therapy</u>: may be given via a peripheral line. • <u>Long term treatment</u>: consider giving via central line. 											

Related Policies, Procedures, and Guidelines

HDWA Mandatory Policies:

[MP 0131/20: WA High Risk Medication Policy](#)

Clinical Practice Guidelines:

[Neonatology – Herpes Simplex Virus \(HSV\); management of neonates born to HSV positive women](#)

[Neonatology – Neonatal Viral Infections](#)

References

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