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	• Treatment or prophylaxis of herpes simplex virus (HSV) type I and type II. • Treatment or prophylaxis of varicella zoster virus infection (VZV).
Special Considerations	• Duration should be discussed with clinical microgiologist. • 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	• 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	**Y-site:** Amino acid/glucose solution (TPN), adrenaline (epinephrine), caffeine citrate, cefepime, ciprofloxacin, dobutamine, dopamine, hydralazine, midazolam, paracetamol, phenylephrine, piperacillin/tazobactam (EDTA-free), vecuronium, verapamil.
Interactions	• 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-Jonhson Syndrome, toxic epidermal necrolysis, anaphylaxis.

Storage & Stability	• Store at room temperature, below 25ºC. • 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) and PCS (PCH): *5 mg/mL*

Dosage

Treatment or prophylaxis of HSV or VSV

Corrected Gestational Age	Dose	Frequency
Less than 30 weeks	20 mg/kg/dose	Every 12 hours
Greater than or equal to 30 weeks	20 mg/kg/dose	Every 8 hours

- Dose adjustment:
  - Renal impairment: dose adjustment is required. Consult microbiologist or neonatal pharmacist.

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 4 mL (100 mg) and make up to 20 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.

- Discard the solution if any visual turbidity or crystallisation occues 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 (*Risk of phlebitis and extravasation increases at concentrations greater than 10 mg/mL*).

- Empirical therapy: may be given via a peripheral line.
- Long term treatment: 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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Document history

Keywords	Aciclovir, acyclovir, herpes simplex virus, HSV, varicella zoster virus, VZV				
Document Owner:	Chief Pharmacist				
Author/ Reviewer	KEMH & PCH Pharmacy/Neonatology Directorate				
Version Info:	4.1 – volume for dilution changed to allow for preparation of larger doses (May 2026)				
Date First Issued:	01/2001	Last Reviewed:	24/10/2023	Review Date:	24/10/2028
Endorsed by:	Neonatal Directorate Management Group			Date:	26/05/2026
NSQHS Standards Applicable:	☒ Std 1: Clinical Governance		☒ Std 4: Medication Safety		
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