REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME

acyclovir

Effective Date: Jan 10 2018 Revised Date: May 20 2020	CLASSIFICATION **Antiviral**	OTHER NAMES **Zovirax**	PAGE 1 of 2

ADMINISTRATION POLICY:

IV bolus – Not recommended
IV Infusion – May be administered by a nurse
IM Injection – Not recommended
Subcut – Not recommended

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 50 mg/mL 10 mL vial

NOTE: Patient should be well hydrated prior to administration to avoid nephrotoxicity.

Intermittent: Remove 14 mL of normal saline from 50 mL minibag
Add 4 mL (200 mg) of acyclovir 50 mg/mL to 36 mL of normal saline minibag
(final volume 40 mL) for a concentration of 5 mg/mL (preferred)
Infuse over at least 60 minutes

If dose is less than 200 mg (ie. above admixture) remove and discard unneeded volume and administer appropriate dose.

DOSAGE:

Herpes simplex virus (HSV), Herpes Zoster, Varicella Zoster:
Usual: 15-60 mg/kg/day divided every 8 to 12 hours

Renal Impairment: Dosage adjustment required:
CrCl less than 50 mL/minute/1.73 m^2, reduce dose or frequency as required
Hepatic Impairment: No dosage adjustment required
Obesity: Use ideal body weight (IBW) OR adjusted body weight
(AdBW = IBW + 0.3 (actual BW –IBW))

Maximum concentration: IV Usual: 7 mg/mL
IV Fluid Restricted: 10 mg/mL

STABILITY/COMPATIBILITY:

Stability of Final Admixture: 24 hours at room temperature

Compatibility: Compatible with normal saline, D5W, D10W, dextrose saline combinations, Lactated Ringer

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REQUIRED MONITORING:

Urine Output: Patient should be well hydrated (PO or IV) before starting acyclovir and through entire therapy. Urine output should be equal to or greater than 2 mL/kg/hour in the 6 hours prior to each dose or document number of voids per day.

Labs: CBC with platelet count, BUN, S-creatinine, LFTs, bilirubin – baseline and at least once weekly Urinalysis (for crystalluria) at end of first week of therapy and may be required if patient becomes dehydrated with decreased urine output.

Neonate: High risk of renal damage. Maintain hydration throughout entire course of therapy. 60 mg/kg/24h dosage – above laboratory analyses baseline and at least twice weekly through entire course (high risk of neutropenia requiring dosage adjustment)

POTENTIAL HAZARDS:

- Hypersensitivity: anaphylaxis (uncommon)
- DERM: skin rash, pruritus, urticaria, photosensitivity reactions
- GI: nausea, vomiting, diarrhea
- HEMAT: neutropenia
- HEPATIC: elevated liver enzymes, hyperbilirubinemia
- NEURO: headache, lethargy, confusion, hallucinations, aggressive behaviour, seizures, coma (1%)
- RENAL: transient rise in urea and creatinine rapid administration or dehydration may cause crystalluria, renal tubular damage and acute renal failure
- LOCAL: thrombophlebitis and pain at site, especially with solutions greater than 7 mg/mL Extravasation hazard: irritant

CAUTION:

- Patient must be adequately hydrated before and during the infusion to minimize crystalluria and renal damage.
- Concurrent administration of other potentially nephrotoxic drugs (e.g. gentamicin, furosemide).

CONTRAINDICATIONS:

- Hypersensitivity to acyclovir or valacyclovir

ADDITIONAL NOTES:

- Seizures at or before the time of initiation of antiviral therapy are associated with increased risk of morbidity especially in patients with CNS or disseminated disease
- Consultation with Neonatology/Children's Infectious Diseases strongly recommended