Guidelines for the Use of Acyclovir (ZOVIRAX®)

Recommended Neonatal Dose, Route, and Interval:

Neonatal HSV and HSV encephalitis:

- 20 mg/kg/dose Q8 hr IV infusion by syringe over 1 hour for 21 days for disseminated or CNS infections and for 14 days for localized herpes simplex infections.
- Prolong the dosing intervals in premature infants < 34, or in patients with significant renal impairment or hepatic failure.
  - Serum creatinine : 0.8-1.1 (20 mg/kg IV every 12 hours)
  - Serum creatinine : 1.2-1.5 (20 mg/kg IV every 24 hours)
  - Serum creatinine : > 1.5 (10 mg/kg IV every 24 hours)
- Chronic suppression: 75 mg/kg/dose PO Q 12 hours

Primary Indications:

1. Treatment of neonatal herpes simplex infections, varicella zoster infections with CNS and pulmonary involvement, and herpes simplex encephalitis

Possible Adverse Reactions

1. Neutropenia in 20% of patients- treat with GCSF if ANC remains less than 500/mm
2. Infusion irritation at the site of administration
3. Transient renal function impairment. It is essential to provide proper hydration to prevent tubular crystallization.
4. Adverse hematologic effects (frequent association)
5. Nausea, vomiting, diarrhea
6. Fever, rash, urticaria

Contraindications & Precautions

1. Hypersensitivity to acyclovir
2. Use with caution in patients with hepatic/renal dysfunction or neurologic disease

Nursing Implications

1. Monitor neutrophil count
2. Monitor input and output closely
3. Watch IV site for phlebitis - if noted, make infusion more dilute
4. Adequate hydration and slow infusion (over 1 hour) are essential to prevent crystallization in renal tubules

Special Considerations and Calculations

1. May be diluted in NS, D5W, D10W; IV infusion to be given over ONE HOUR
2. Pharmacy will prepare a pediatric syringe at a concentration of 7mg/mL
3. Solution compatibility - D5W, D10W, and NS. Incompatible with TPN
4. Half-life: 2-5 hrs., depends of maturity of renal system and overall renal function
5. Do not refrigerate.

References:
1. Neofax 2010

Reviewed/Revised: 6/2010 by
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