**Alert**  
IV ganciclovir is a cytotoxic agent.

**Indication**  
1) Treatment of severe or moderately severe, symptomatic congenital CMV, or  
2) Treatment of acute severe CMV disease.

**Action**  
Synthetic nucleoside analogue of 2-deoxyguanosine that inhibits replication of herpes viruses.  
Sensitive human viruses include cytomegalovirus, herpes simplex virus 1 and 2, herpes virus type 6, 7 and 8, Epstein-Barr virus, varicella zoster virus and hepatitis B virus.

**Drug Type**  
Antiviral

**Trade Name**  
Cymevene

**Presentation**  
Injection containing ganciclovir sodium 500 mg (for reconstitution)

**Dosage/Interval**  
6 mg/kg/dose 12 hourly.  
Infants may be switched to oral valganciclovir if clinically stable and able to take oral medications.  
IV ganciclovir should generally not be used for more than 6 weeks.  
Please note, oral valganciclovir is the oral prodrug of ganciclovir and prescribed at a different dose.

**Route**  
IV

**Preparation/Dilution**  
IV ganciclovir is a cytotoxic agent. Contact Pharmacy to order reconstituted/pre-diluted product. Final concentration should not be higher than 10 mg/mL.

**Administration**  
IV ganciclovir is a cytotoxic agent. Follow full cytotoxic precautions as per local policy.  
IV infusion over 30 minutes with a syringe pump. Central line is preferred as medication has high pH and can cause tissue irritation. Peripheral cannula may be used for short-term treatment but the IV site should be monitored carefully.

**Monitoring**  
Full blood count, particularly neutrophil count, should be followed weekly for 6 weeks, then at week 8, then monthly for the duration of therapy.  
Liver function tests monthly throughout therapy.  
Renal function tests.

**Contraindications**  
Hypersensitivity to ganciclovir, valganciclovir, aciclovir or valacyclovir.  
Patients with:  
• absolute neutrophil count below 0.5 x 10^9/L or  
• platelet count below 25 x 10^9/L unless thrombocytopenia is related to CMV disease, or  
• haemoglobin less than 80 g/L (8 g/dL).

**Precautions**  
Ganciclovir has both gonadal toxicity and carcinogenicity in animal models and its long-term safety after administration to young children is not established.¹

**Drug Interactions**  
Convulsions have been reported in patients receiving ganciclovir and imipenem-cilastatin concurrently.  
Concurrent use of tacrolimus and ganciclovir increases nephrotoxicity.

**Adverse Reactions**  
Commonly causes neutropenia. If absolute neutrophil count (ANC) falls below 0.5 x 10^9/L and if it is thought not to be due to CMV disease, withhold medication until ANC is above 0.75 x 10^9/L then restart medication at half dose. If ANC falls below 0.5 x 10^9/L again, consider discontinuing the medication.  
Can also cause anaemia and thrombocytopenia. Discontinue medication if platelet count below 25 x 10^9/L or haemoglobin less than 80 g/L occurs and is thought not to be due to CMV disease.

**Compatibility**  
Fluids: Glucose 5%, sodium chloride 0.9%.  
Drugs via Y-site: Anidulafungin, caspofungin, filgrastim, fluconazole, linezolid, remifentanil.

**Incompatibility**  
Fluids: Amino acid/glucose. Lipid emulsion.  
Drugs: Adrenaline (epinephrine) hydrochloride, amikacin, aminophylline, ampicillin, aztreonam, benzatropine, benzylpenicillin, cefazolin, cefepime, cefotaxime, cefoxitin, ceftazidime, ceftriaxone, clindamycin, dobutamine, dopamine, erythromycin, esmolol, gentamicin,
Ganciclovir
Newborn Use Only

Stability
Compounding centres that are licensed by the Australian Therapeutic Goods Administration to reconstitute and/or further dilute cytotoxic medicines and have validated aseptic procedures and regular monitoring of aseptic technique may apply a shelf life of 15 days at 2 to 8°C (refrigerate, do not freeze) to ganciclovir IV infusions reconstituted with water and further diluted with sodium chloride 0.9% or glucose 5%. Please contact your Pharmacy Department for more information or refer to expiry date on the product.

Storage
Unused vials: Store below 30°C.
Pre-diluted solution: Store at 2 to 8°C (or as instructed on product label by compounding facility).

Special Comments

References

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