GANCICLOVIR

Trade Name	Cymevene® Roche
Class	Antiviral
Mechanism of Action	Inhibits viral DNA synthesis by competitively preventing binding of deoxyguanosine triphosphate to DNA polymerase.
Indications **Individual ID approval required for full treatment course**	Treatment of symptomatic cytomegalovirus (CMV) infection
Contraindications	Hypersensitivity to ganciclovir or valganciclovir. Neutrophil count <0.5 Platelet count < 25 Haemoglobin < 80 g/L
Supplied As	500mg powder for IV infusion **Please check with pharmacy to confirm formulation before ordering** Pharmacy will usually organise sterile reconstitution of a 5mg/mL solution by Baxter on an individual basis.
Dilution	Not required
Dosage	**IV**: 6mg/kg/dose Neofax recommend reducing dose by 50% if neutropenic (<500 cells/mm^3)
Interval	12 hourly for 6 weeks
Administration	Infuse over 1 hour via a central venous line when possible (pH= 11 which makes the solution irritant to veins) Peripheral infusion can be used in urgent situations Do not administer subcutaneously or intramuscularly
Compatible With	**Solutions:** Sodium chloride 0.9%, glucose 5%, lactated ringers **Y –site:** Amphotericin (liposomal), atenolol, atropine, calcium chloride, calcium gluconate,dexamethasone, dexmedetomidine, enalaprilat, epoietin fluconazole, furosemide, heparin, insulin (neutral), labetalol, linezolid, milrinone, pamidronate, pancuronium, pantoprazole, phenobarbitone, potassium chloride, propranolol, ranitidine, remifentanil, sodium acetate.
Incompatible With	**Solutions:** Lipid **Y-site:** adrenaline, amoxicillin,amphotericin (standard), aztreonam, cefepime, cotrimoxazole, dobutamine, dopamine, gentamicin, metronidazole, midazolam, morphine, phenytoin, piperaillin/tazobactam, sodium bicarbonate, vancomycin, vasopressin.

Interactions	Use in combination with imipenem/cilastatin increases risk of seizures
Monitoring	FBC including platelets, every 2-3 days during the first 3 weeks of treatment, then weekly. Monitoring of serum creatinine and opthalmological exams also advised.
Stability	Solutions of ganciclovir at concentrations between 1-10mg / mL are reported to be stable for 60 days at room temperature after sterile reconstitution by Baxter. Each individually prepared syringe is for single use. Discard any remaining contents and the syringe in the purple plastic cytotoxic container immediately after use.
Storage	Store prefilled syringes at room temperature
Adverse Reactions	**More common side effects:** Chills, fever, neuropathy, pruritis, sweating, feeding difficulties, diarrhoea, vomiting, headache, anaemia, leukopenia, neutropenia, thrombocytopaenia, increased risk of sesis, increased serum creatinine, retinal detachment. **Rare but serious:** alopecia, bronchospasm, dyspnoea, extrapyramidal side effects, haemorrhage, infertility, renal failure, seizures, SIADH, Stevens Johnson Syndrome, torades de pointe, visual loss.
Metabolism	Cleared as unchanged drug via glomerular filtration and tubular secretion by the kidneys. Half life = 1.7 – 5.8 hours.
Comments	**Warning:** Ganciclovir is potentially mutagenic and or carcinogenic and should be handled using the same precautions as for cytotoxics. Avoid contact with skin and mucous membranes. Note: oral management of symptomatic CMV is with oral valganciclovir
References	1. http://neofax.micromedexsolutions.com/neofax/neofax.php?sa=&area=1&subarea=0&drugName=Ganciclovir&mode=NEO&navitem=drugMonograph.view&Category=0&keyword=gan&Drug=neo%2F136 2. www.medsafe.govt.nz 3. https://www.nzfchildren.org.nz/nzf_3448 4. https://www.uptodate.com/contents/ganciclovir-systemic-pediatric-drug-information?search=ganciclovir&source=search_result&selectedTitle=2~105&usage_type=default&display_rank=2 5. http://www.micromedexsolutions.com/micromedex2/librarian/PFActionId/evidenceexpert.ShowIVCompResults?resultType=ysite&selectedDrugs=%5B%5B'Ganciclovir+sodium'%2C'Ganciclovir+sodium'%2C'Ganciclovir+sodium'%2C'39'%5D%5D&refinedDrugs=%5B'Ganciclovir+sodium'%5D
Updated By	A.Lynn, B Robertshawe June 2018 A Lynn, M Wallenstein, B Robertshawe March 2021 (review) B Robertshawe June 2024 (update of "supplied as and stability sections" due to change in presentation from Baxter Healthcare®)