



NEONATAL Medication Monograph

GANCICLOVIR

This document should be read in conjunction with this [DISCLAIMER](#)

Highly Restricted: Requires Neonatologist or Microbiologist approval before commencing

⚠ HIGH RISK Medication

Ganciclovir is considered as a cytotoxic agent – ensure adequate handling measures are taken

Presentation	Individual patient syringes: (Contact Pharmacy for supply)
Description	Antiviral
Indications	<ul style="list-style-type: none"> • Treatment of severe or moderately severe, symptomatic congenital CMV • Treatment of acute severe CMV disease
Contraindications	<p>Hypersensitivity to ganciclovir, valganciclovir, aciclovir or valaciclovir.</p> <p>Patients with:</p> <ul style="list-style-type: none"> • Absolute neutrophil count below 0.5×10^9 /L or • Platelet count below 25×10^9 /L unless thrombocytopenia is related to CMV disease, or • Haemoglobin less than 80 g/L
Precautions	Ganciclovir has both gonadal toxicity and carcinogenicity in animal models and its long-term safety after administration to young children is not established
Dosage	<p>IV:</p> <p>6mg/kg/dose every 12 hours</p>
Dosage Adjustment	Reduce the dose by half for significant neutropenia
Adverse Reactions	Common: neutropenia, anaemia, thrombocytopenia, fever , rased liver enzymes ,pain and phlebitis at injection site
	Serious: Hematologic Toxicity: Granulocytopenia, anemia, thrombocytopenia, and pancytopenia, male infertility

Interactions	Convulsions have been reported in patients receiving ganciclovir and imipenem-cilastatin concurrently. Concurrent use of tacrolimus and ganciclovir increases nephrotoxicity
Compatible Fluids	Glucose 5%, Sodium chloride 0.9%
Preparation & Handling	<p>IV Ganciclovir is a cytotoxic agent. Contact Pharmacy to order reconstituted/pre-diluted product. Final concentration should not be higher than 10 mg/mL.</p> <p><u>Handling:</u> Medication Ensure gloves are worn when handling the reconstituted suspension. If a spill occurs onto the skin, wash with warm soapy water.</p> <p>Disposing of body fluids – nappies</p> <ul style="list-style-type: none"> • All neonates who wear nappies and who are receiving ganciclovir treatment or have had it in the previous 48 hours should wear disposable nappies • When changing nappies always wear gloves – ensure that parents are aware of this and that they have a supply of them. • The nappies and gloves should be placed in a plastic bag, sealed and then placed in the purple cytotoxic waste bag, or in the home setting should be placed in a bag that is sealed and so limit the chance of accidental exposure. <p>Weighing of soiled nappies</p> <ul style="list-style-type: none"> • Often the child requires an accurate fluid balance assessment and the nappies will need to be weighed. Therefore, place the nappy in a plastic bag before putting it on the scales • Dispose of as above <p>Nappies should not be left lying around on top of equipment, waiting to be weighed. Try to deal with them as soon as they are changed but if this is not possible, ensure that they have put them in a suitable place eg; plastic bag</p>
Administration	<p>IV ganciclovir is a cytotoxic agent. Follow full cytotoxic precautions <u>IV Infusion:</u> Over 1 hour</p> <p>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.</p>

Monitoring	<p>Full blood count, particularly neutrophil count, should be followed weekly for 6 weeks, then at week 8, then monthly for the duration of therapy.</p> <p>Liver function tests monthly throughout therapy.</p> <p>Renal function tests.</p>
Storage	Vial: Store at room temperature below 25°C
Notes	Cytotoxic handling and disposal procedures should be followed as per: Cytotoxic and Hazardous Medications
References	<p>Ainsworth SB. Neonatal formulary 7 : drug use in pregnancy and the first year of life. Seventh ed. Chichester (West Sussex): John Wiley & Sons Inc.; 2015. 235.</p> <p>Truven Health Analytics. Ganciclovir. In: Micromedex [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2020 Feb 07]. Available from: http://www.micromedexsolutions.com/</p> <p>Lexicomp. Ganciclovir. In: UpToDate [Internet]. Alphen aan den Rijn (Netherlands): Wolters Kluwer; 2019[cited 2020 Feb 07]. Available from: https://www.uptodate.com/</p> <p>Society of Hospital Pharmacists of Australia. Ganciclovir. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2020 Feb 07]. Available from: http://aidh.hcn.com.au</p>
Related clinical guidelines	<p>Cytotoxic and Hazardous Medications</p> <p>Cytomegalovirus (CMV) Neonatal Pathway</p> <p>Congenital CMV Checklist</p>
Related policies	WNHS Policy: Antimicrobial Stewardship

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