Ganciclovir Intravenous Infusion for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- Contact PASU 4685 to prepare infusion
- If PASU are unable to prepare the infusion, a Closed System Transfer Device (CSTD) must be used- see Important information:
- **Staff must wear gloves, goggles, mask and gown and must use a Closed System Transfer Device (CSTD)(e.g. Equashield or PhaSeal) to prepare this drug**. This is to prevent exposure of health-care staff to the drug
- **Equashield instructions** (view these websites on desktop computer)
    - Preparing a vial assembly
    - Reconstituting a powder using a diluent vial
    - Adding to an infusion bag
    - Other instructional videos
- Equashield components required:
- a: VA20 vial adaptor (VA-20/2) - one for the water for injection 100ml bottle, and one for each vial of drug required
- b: 10ml Syringe unit (SU-10/2) - to draw up Water for injection to reconstitute drug and will also draw up reconstituted solution
- c: spike adaptor (SA-IT) (to add reconstituted solution into the infusion bag)
- **Phaseal:** https://www.youtube.com/watch?v=whKZWkCPbc8
- See under 'Further information' regarding **handling of drug and the disposal of waste**
- See under 'Dose' for adjustments required in **renal** impairment

Available preparations

Cymevene 500mg vial

Reconstitution

Water for injection

- Using a Closed System Transfer Device (CSTD)- see Important information: add 10ml water for injection from a 100ml vial (available in pharmacy) into the vial (plasco not suitable as cannot connect to Equashield)
- Swirl gently to dissolve drug
- This produces a 50mg/ml solution
- **Dilute further prior to administration**

Infusion fluids

Sodium chloride 0.9% or Glucose 5%

Methods of intravenous administration

Intermittent intravenous infusion (administer using an electronically controlled infusion device)

- Using a Closed System Transfer Device (CSTD)- see Important information:, dilute to a maximum concentration of 10mg/ml
- Doses of **500mg or less**: add to **at least** 50ml infusion fluid (preferably 100ml to avoid significant loss from residual volume in administration set)
- Doses of **over 500mg** (but less than 1000mg): add to at least 100ml infusion fluid
- Administer over 60 minutes

Dose in adults

TREATMENT OF CMV INFECTION

- **Induction treatment:** give 5mg/kg every twelve hours for 14 to 21 days
- **Maintenance treatment:** for immunocompromised patients at risk of relapse of CMV, a course of maintenance treatment may be given. The dose is 6mg/kg once daily for five days per week, **or** 5mg/kg once daily for seven days per week
- **Duration of treatment**: should be determined on an individual basis - consult local specialists
- **Treatment of disease progression:** any patient in whom the CMV disease progresses, either while on maintenance treatment, or because treatment was discontinued, may be retreated using the induction treatment regimen

PREVENTION OF CMV DISEASE (using pre-emptive therapy)

- **Induction treatment:** give 5mg/kg every twelve hours for 7 to 14 days
- **Maintenance treatment:** dose is 6mg/kg once daily for five days per week, **or** 5mg/kg once daily for seven days per week
- **Duration of treatment:** the duration of maintenance treatment is based on the risk of CMV disease - consult local specialists

For other indications: see SPC

Renal impairment

- Dosage adjustment is required, see table below
- Need to **calculate creatinine clearance** rather than using eGFR for ganciclovir
- **Note: The Renal Drug database includes an alternative regimen** [ref 2]**.** Consult micro/ID for advice on a case by case basis

Creatinine clearance (ml per minute)	Dose	Frequency
70 or greater	usual dose	usual frequency
50 to 69	initial dose 2.5mg per kg	every 12 hours
	maintenance dose 2.5mg per kg	every 24 hours

25 to 49	initial dose 2.5mg per kg	every 24 hours
	maintenance dose 1.25mg per kg	every 24 hours
10 to 24	initial dose 1.25mg per kg	every 24 hours
	maintenance dose 0.625mg per kg	every 24 hours
Renal replacement therapy	consult pharmacy or specialist texts	

Monitoring

- Serum creatinine levels, or **creatinine clearance** should be monitored carefully
- **FBC and platelet** counts should also be monitored
- If there is a significant deterioration of blood counts during therapy with Ganciclovir, treatment with haematopoietic growth factors and/or dose interruption should be considered.

Further information

- **Special precautions are recommended when handling** this drug. All products involved in preparation and administration of the drug should be disposed of in a purple **cytotoxic** bin. Staff should wear protective clothing, gloves and goggles when administering the drug.
- Some 90% of the drug is excreted unchanged in the urine - hence care must be taken when disposing of products - e.g.catheter bags, nappies etc. - again they should be treated as **cytotoxic waste**

Storage

- Store below 25^{0}C

References

SPC May 2023

1: Injectable medicines Guide, accessed via Medusa 28/01/2025

2: Renal drug database accessed online 28/01/2025

Therapeutic classification

Anti-viral drug