

Indications: treatment of resistant Herpesviridae infections in immunosuppressed patients (AIDS or transplant).

Active against **HSV-1, HSV-2, VZV, CMV**

Due to **toxicity**, usually used as a **second line agent** in **drug resistant infections**

Mechanism of action : drug is taken up by cells. Does not require any activation or phosphorylation

- It is a **pyrophosphate analogue**, which binds reversibly near pyrophosphate binding site of **DNA polymerase**
- DNA polymerase normal role is to **cleave pyrophosphate** molecule from DNA, so further nucleotides can be added to growing DNA chain
- Foscarnet prevents pyrophosphate cleavage, thereby **terminating elongation of viral DNA**
- Has **significantly greater affinity for viral**, rather than host, DNA polymerase

Dose: IV only.

Treatment of CMV disease e.g retinitis

Treatment of acyclovir-resistant HSV or VZV

Adverse effects (please see BNF)

Nephrotoxicity – significant risk of acute tubular necrosis

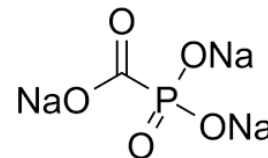
Electrolyte disturbance – all minerals, but particularly hypocalcaemia

Seizures

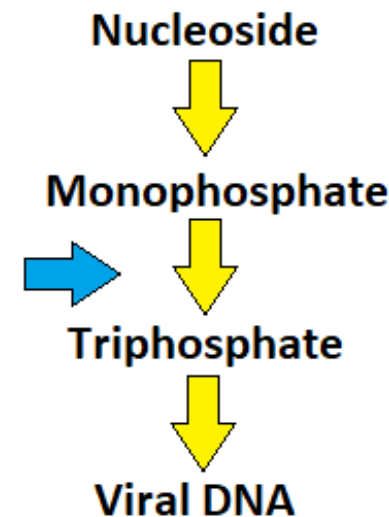
QTc prolongation

Bone marrow suppression

Foscarnet



Blocked by
Foscarnet



Use in Pregnancy/ Breast feeding

Lack of data available. Avoid unless benefits outweigh risks

Use in Renal impairment

Caution in renal impairment