



Acyclovir

Drug Class:

Therapeutic class: Antiviral agent

Pharmacologic class: Synthetic nucleoside (guanine) analogue.

Mechanism of Action:

Acyclovir is selectively activated in virus-infected cells by viral thymidine kinase to acyclovir monophosphate, then converted to the active triphosphate form by host enzymes. Acyclovir triphosphate inhibits viral DNA polymerase and causes chain termination, preventing viral DNA synthesis.

Allied Formulations:

Oral: Tablets (200 mg,400 mg,800 mg)

Capsule: 200 mg

Suspension: 200 mg/5ml

IV: 250 mg/5ml,500 mg/10ml,1g/20ml

Indications:

Labelled Indications and Dose		Off-labelled Indications and Dose	
Indications	Dose	Indications	Dose
Genital Herpes	IV:5-10mg/kg/dose TDS for 2-7 days Oral: 200mg 5 times a day For 7-10 days	Bell's Palsy	Oral: 400mg 5 times a day For 7 days
Recurrent Genital Herpes	IV Dose as genital herpes f/b Oral: 400mg 3 times a day For 5 days	Varicella	IV: 10-15mg/kg every 8 hrs for 7-10 days
HSV Encephalitis	IV: 10mg/kg every 8 hrs For 14-21 days	CMV Infection	Adults \geq 40kg-IV: 500mg/m ² /dose TDS Oral : 800mg 4 times a day
Varicella	Oral (>40 Kg): 800mg 4 times a day for 5 days		
Herpes Zoster	IV: 10mg/kg/dose TDS for 7 days Oral : 800mg 5 times daily for 7-10 days		

Dose Adjustment:

Dose adjustment is required in patients with renal impairment. The dose should be reduced or the dosing interval extended

based on creatinine clearance. Dose adjustment is recommended when CrCl is <25 mL/min for oral therapy and <50 mL/min for IV. Adequate hydration is essential during IV therapy.

Clinical Pharmacy Considerations:

- Assess baseline renal function before initiation of therapy
- Adjust dose according to creatinine clearance to prevent accumulation
- Ensure adequate hydration, particularly during IV administration
- Administer IV acyclovir as a slow infusion over at least 1 hour
- Monitor for signs of neurotoxicity (confusion, hallucinations, tremors), especially in renal impairment
- Counsel patients on adherence to therapy and adequate fluid intake