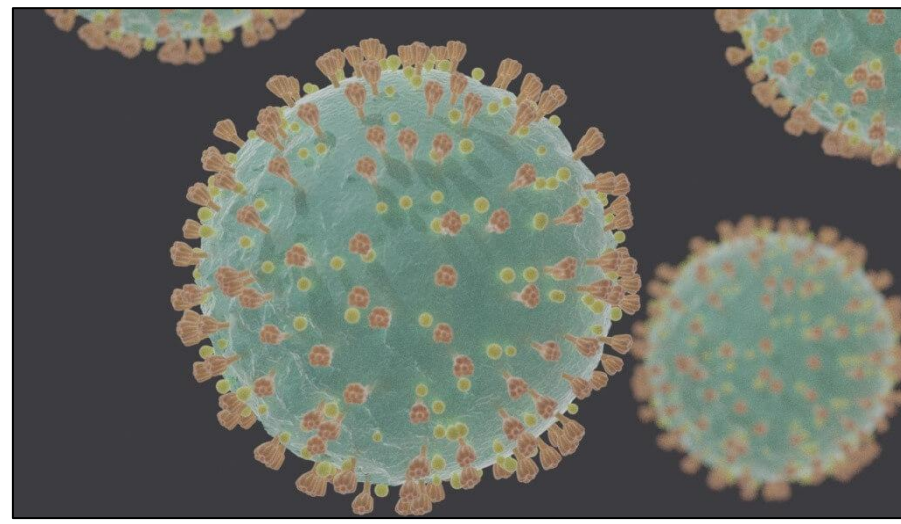


The Bulletin from the Clinical Pharmacist

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Valacyclovir

Valacyclovir is a second-generation antiviral agent widely used in the management of Herpes Simplex Virus (HSV-1, HSV-2) and Varicella Zoster Virus (VZV) infections. It was developed to overcome the limitations of Acyclovir, particularly its poor oral bioavailability and frequent dosing requirements, thereby improving patient adherence and therapeutic outcomes in ambulatory care settings.

Therapeutic class: Antiviral agent

Pharmacological class: Prodrug of Acyclovir (guanine nucleoside analogue)

Mechanism of action:

After oral administration, Valacyclovir is rapidly and almost completely converted to Acyclovir by intestinal and hepatic esterases. Acyclovir is selectively activated only in virus-infected cells by viral thymidine kinase, ensuring targeted action. The activated form inhibits viral DNA polymerase and causes premature DNA chain termination, thereby halting viral replication.

Available formulations:

Oral tablets: 500 mg, 1000 mg

Dosing:

	Indications	Dosing & frequency
Labelled indications	Herpes Labialis (Cold Sores)	2 g BD for 1 day
	Herpes Zoster (Shingles)	1 g TDS for 7 days
	Herpes Simplex virus, genital infection	<i>Initial:</i> 1 g BD for 10 days <i>Recurrent:</i> 500 mg BD for 3 days or 1 g OD for 5 days <i>Suppressive:</i> 1 g OD
Off-labelled indications	Herpes B virus, post exposure prophylaxis	1 g TDS for 14 days
	Cytomegalovirus (CMV) reactivation	2 g TDS or QID
	Varicella-Zoster Virus (VZV), post exposure prophylaxis	1 g TDS for 22 days (Initiate within 96 hrs)

Dose adjustment & special populations:

Dose adjustment is necessary in cases of renal impairment. Reduce dose or extend dosing interval if CrCl < 50 mL/minute.

Elderly patients require cautious dosing, as CNS effects have been reported.

Comparative clinical profile:

Parameters	Acyclovir	Valacyclovir
Oral bioavailability	Low (10–20%)	High (~55%)
Dosing frequency	3–5 times/day	1–3 times/day
Formulations	Oral + IV	Oral only
Patient adherence	Lower	Better
Preferred setting	Severe / inpatient	OPD & long-term therapy

Clinical considerations:

Early initiation of antiviral therapy, preferably within 72 hours of symptom onset, significantly improves clinical outcomes in herpes virus infections. Regular monitoring of renal function and adequate hydration are essential to minimize drug-related toxicity.