

APPENDIX IV: Selecting an Oral Antiviral Agent

In select cases, the choice among oral antiviral agents may be guided by the following:

Lactose Intolerant Patients

The brand Valtrex® and the generic drug valacyclovir are recommended for the treatment of HSV keratitis in patients with lactose intolerance. Specific preparations of acyclovir are lactose-free along with preparations by some specific manufacturers of generic famciclovir. In order to avoid lactose without concern, the prescriber should request lactose-free preparations.

Lactose-free brand oral antiviral agents:

1. **Zovirax® (acyclovir)**: 400 mg or 800 mg (200 mg contains lactose)
2. **Valtrex® (valacyclovir)**

Lactose-free generic oral antiviral agents:

1. **Valacyclovir**: any strength
2. **Famciclovir, manufactured by Teva**: any strength

*Generic medications are required to include identical active ingredients, but the inactive ingredients vary between manufacturers. The presence of lactose in generic acyclovir varies between manufacturers. However, the available generic version of acyclovir contains lactose. Several manufactures produce generic famciclovir for the United States and only one is lactose-free (Teva). All strengths of Famvir® (famciclovir) contain lactose. Since the manufacturer is not known until the drug is dispensed, generic famciclovir is not recommended for the lactose intolerant.

Pediatric Patients

1. **Acyclovir**: safety and efficacy established in neonates and above. (Available in a suspension formula.)
2. **Valacyclovir**: indicated for children greater than age 2.

*The efficacy and safety of famciclovir has not been established in pediatric patients. Famciclovir is indicated only for patients greater than 18 years of age.

Women of Child-Bearing Age

1. **Acyclovir**¹
2. **Valacyclovir**¹

*All three oral antiviral agents have been designated Pregnancy Category B. There is evidence to suggest that mothers taking acyclovir and valacyclovir in the first trimester of pregnancy are no more likely to have children with major birth defects when compared to the general population. Too few women were taking famciclovir at the time to support the safety of this drug.¹

Elderly Patients

Famciclovir

*Famciclovir is preferred to acyclovir and its prodrug valacyclovir in elderly patients (defined by the FDA as ≥ 65 years of age), with or without reduced renal function.

Acyclovir and valacyclovir use in these patients carries an increased risk of central nervous system adverse reactions, including agitation, hallucinations, confusion, and encephalopathy. Acyclovir and valacyclovir in elderly recipients also carries an increased risk of acute renal failure as compared to patients < 65 years of age.

Immunocompromised Patients (HIV, Transplant)

Famciclovir, Valacyclovir, or Acyclovir

*While the prescribing information for valacyclovir and acyclovir report the risks below, three randomized controlled trials demonstrated the efficacy and safety of these medications in patients infected with HIV.²

Prescribing Information Warning: Valacyclovir has an increased risk of thrombotic thrombocytopenic purpura/hemolytic uremic syndrome in patients infected with HIV and in transplant (bone marrow and renal) recipients. Acyclovir has an increased risk of thrombotic thrombocytopenic purpura/hemolytic uremic syndrome in patients immunocompromised for any reason.

Patients with Impaired Renal Function

All oral antiviral agents should be used with caution in patients with impaired renal function. All oral antiviral agents require dose adjustment in patients with impaired renal function. (See Appendix VI.)

1. Pasternak B, Hviid A. Use of acyclovir, valacyclovir, and famciclovir in the first trimester of pregnancy and the risk of birth defects. JAMA 2010;304:859-66.
2. Warren T, Harris J, Brennan CA. Efficacy and safety of valacyclovir for the suppression and episodic treatment of herpes simplex virus in patients with HIV. Clin Infect Dis 2004;39 Suppl 5:S258-66.