

Table. Selected Clinical Uses of Intravenous Acyclovir

Etiology	Treatment of Choice	Alternatives	Comments
Encephalitis			
Herpes Simplex Virus (HSV) ^{4,5}	Adults Acyclovir 10 to 15 mg/kg IV every 8 hours for 14 to 21 days.^{4,6} Neonates Acyclovir 20 mg/kg IV every 8 hours for 21 days.^{4,6}	There are no clinical trials with other antiviral agents for the treatment of herpes simplex encephalitis (HSE).	Oral valacyclovir does not achieve adequate cerebrospinal fluid (CSF) levels to be considered primary treatment for HSE. ⁷
Varicella Zoster virus (VZV) ⁴	Adults: Acyclovir 10 to 15 mg/kg IV every 8 hours for 10 to 14 days. ⁴	Ganciclovir: The 2008 IDSA Encephalitis Guidelines ⁴ indicate there is poor evidence to support ganciclovir as alternative agent.	Information based on 1 case report in patient with HIV who was also cytomegalovirus (CMV) and VZV positive. No ganciclovir doses were provided in report. ^{4,8}
Mucocutaneous Infections			
Herpes Simplex Virus (HSV)	Adults <u>Immunocompromised:</u> Acyclovir 5 to 10 mg/kg IV every 8 hours OR Valacyclovir 1000 mg oral every 8 hours OR Famciclovir 250 mg to 500 mg orally every 8 hours (Route and dose depends on severity of infection).⁹⁻¹¹ Treatment duration ranges from 7 to 14 days.⁵ Neonates Acyclovir 10 to 20 mg/kg IV every 8 hours for 14 days.⁶	<u>Immunocompromised:</u> For moderate to severe mucocutaneous HSV, IV acyclovir is preferred.¹² When lesions begin to heal, can switch to oral therapy with valacyclovir, famciclovir or acyclovir.¹³ There are no data for oral agents in moderate to severe disease. <u>Acyclovir-resistant HSV in immunocompromised patients:</u> Foscarnet 40 mg/kg IV three times daily for 2 to 3 weeks.¹⁴	Foscarnet has been used in the management of acyclovir resistant mucocutaneous HSV in immunocompromised patients. ^{6,14} There are no data for use in treatment of other HSV infections in immunocompromised patients or for treatment of HSV in immunocompetent patients. ^{6,14}
Varicella Zoster Virus (VZV)	Adults <u>Immunocompromised with significant disease:</u> Acyclovir 5 to 10 mg/kg IV every 8 hours.⁹⁻¹¹ <u>Immunocompromised with disseminated VZV:</u> Acyclovir 10 to 12 mg/kg IV every 8 hours.^{9,11} <u>Immunocompromised with single dermatomal involvement:</u> Acyclovir 5 mg/kg IV every 8 hours for 7 to 10 days.⁹	<u>Immunocompromised with single dermatomal VZV:</u> Acyclovir oral 800 mg 5 times daily for 7 to 10 days⁹ OR Valacyclovir 1 gram every 8 hours for 7 to 10 days.	

Pneumonia			
Herpes simplex virus (HSV)	Adults <u>Immunocompetent:</u> Acyclovir 5 mg/kg IV every 8 hours.^{5, 15, 16} <u>Immunocompromised:</u> Acyclovir 5 to 10 mg/kg IV every 8 hours up to 21 days.^{6, 15, 17}	<u>Immunocompromised</u> <u>Seriously ill:</u> Consider foscarnet 40 mg/kg IV three times daily (no clinical studies to support recommendation). <u>Moderately ill:</u> Consider valacyclovir 1000 mg three times daily (no clinical studies to support recommendation).	No experimental trials have been conducted with antiviral agents for the treatment of viral pneumonia.¹⁵ Foscarnet safety and efficacy has not been established for treating HSV infection in immunocompetent patients.⁶ Recommendation based solely on the fact that foscarnet is used as salvage therapy in acyclovir resistant disease.
Varicella-Zoster virus (VZV)	Adults <u>Immunocompetent</u> Acyclovir 5 to 10 mg/kg IV every 8 hours^{5, 10, 15, 20} <u>Immunocompromised</u> Acyclovir 10 mg/kg IV every 8 hours for 7 to 10 days^{6, 10}	Foscarnet has been used in the management of acyclovir-resistant VZV in a limited number of AIDS patients.⁶	Valacyclovir recommendation based on study that showed valacyclovir 1000 mg three times daily provided comparable plasma levels to acyclovir 5 mg/kg IV every 8 hours.¹⁸ Ganciclovir has activity against HSV type 1 and 2. No clinical data for treating HSV and VZV. Breakthrough VZV infection has occurred in patients being treated with ganciclovir for CMV.¹⁹