Antiviral Agents

Drug	Normal Dose	CrCl 10-50 mL/min^	CrCl <10 mL/min	HD Supplement[#,&]
Acyclovir PO				
Mucocutaneous HSV	400 mg q8h	400 mg q8h	200 mg q12h	Dose AD
Herpes zoster (shingles)	800 mg 5 times daily	800 mg q8h	800 mg q12h	Dose AD
Acyclovir IV				
Mild-to-moderate infections	5 mg/kg q8h	5 mg/kg q12h (25-50) 5 mg/kg q24h (10-24)	2.5 mg/kg q24h	Extra 2.5 mg/kg AD
Severe infections (including HSV encephalitis & disseminated disease)	10 mg/kg q8h	10 mg/kg q12h (25-50) 10 mg/kg q24h (10-24)	5 mg/kg q24h	Extra 5 mg/kg AD
Cidofovir IV	**Must give probenecid 2 g 3 hours before each dose and 1 g at 2 hours and 8 hours after each dose. Must also give 1L NS before each dose with a second L immediately after dose, if tolerated*			
CMV induction	5 mg/kg weekly x 2 doses	Decrease to 3 mg/kg if SCr >0.3-0.4 mg/dL above baseline. Discontinue if SCr >0.5 mg/dL above baseline. Contraindicated if SCr >1.5 mg/dL at baseline or if CrCl ≤ 55 mL/min.		
CMV maintenance	5 mg/kg q2weeks			
Foscarnet IV	**Adjustments based off CrCl measured in mL/min/kg*			
CMV induction	90 mg/kg q12h	70 mg/kg q12h (1.0-1.4) 50 mg/kg q12h (0.8-1.0) 80 mg/kg q24h (0.6-0.8)	60 mg/kg q24h (0.5-0.6) 50 mg/kg q24h (0.4-0.5) Not recommended (<0.4)	None
CMV maintenance	90 mg/kg q24h	70 mg/kg q24h (1.0-1.4) 50 mg/kg q24h (0.8-1.0) 80 mg/kg q48h (0.6-0.8)	60 mg/kg q48h (0.5-0.6) 50 mg/kg q48h (0.4-0.5) Not recommended (<0.4)	None
Ganciclovir IV				
CMV induction	5 mg/kg q12h	2.5 mg/kg q12h (50-69) 2.5 mg/kg q24h (25-49) 1.25 mg/kg q24h (10-24)	1.25 mg/kg TIW	Dose AD
CMV maintenance	5 mg/kg q24h	2.5 mg/kg q24h (50-69) 1.25 mg/kg q24h (25-49) 0.625 mg/kg q24h (10-24)	0.625 mg/kg TIW	Dose AD
Oseltamivir PO				
Prophylaxis	75 mg q24h	30 mg q24h (30-60) 30 mg q48h (10-30)	30 mg after every other dialysis session	Dose AD
Treatment	75 mg q12h	30 mg q12h (30-60) 30 mg q24h (10-30)	30 mg TIW	Dose AD
Valacyclovir PO				
Mucocutaneous HSV	1 g q12h	1 g q12h (30-49) 1 g q24h (10-20)	500 mg q24h	Dose AD
Herpes zoster (shingles)	1 g q8h	1 g q12h (30-49) 1 g q24h (10-49)	1 g q24h	Dose AD
Valganciclovir PO				
CMV induction	900 mg q12h	450 mg q12h (40-59) 450 mg q24h (25-39) 450 mg q48h (10-24)	200 mg TIW (must use oral solution)	Dose AD
CMV maintenance or prophylaxis	900 mg q24h	450 mg q24h (40-59) 450 mg q48h (25-39) 450 mg BIW (10-24)	100 mg TIW (must use oral solution)	Dose AD

CrCl = creatinine clearance; HD = hemodialysis; IV = intravenous; PO = oral; AD = after dialysis; CI = continuous infusion; TIW = three times per week; EI = extended infusion; TI = traditional infusion; TMP-SMX = trimethoprim-sulfamethoxazole; PCP = *Pneumocystis jirovecii* pneumonia; BIW = twice weekly; SCr = serum creatinine

^ CrCl range for which the dose is recommended. Drug-specific ranges are listed in parentheses.

[#] Indicates supplement to be given in addition to maintenance dosing (typically for CrCl <10 mL/min)

[&] For continuous renal replacement therapy (CRRT) or sustained low-efficiency dialysis (SLED) consider the following:

If dialysis is given continuously over 24 hours, consider dosing as if CrCl >50 mL/min for most antimicrobials

If dialysis is given intermittently, consider dosing as if CrCl <10 mL/min when off dialysis and provide supplemental dosing post-dialysis

Contact your pharmacist for any questions with dosing during CRRT or SLED

+ Indicates to give the recommended maintenance dose after hemodialysis on dialysis days (CrCl <10 mL/min)