ANTIMICROBIAL DOSING RECOMMENDATIONS FOR ADULT PATIENTS[1]

Antibiotics			
Amikacin IV	Ceftazidime-avibactam IV	Doxycycline IV/PO	Omadacycline PO
Amoxicillin PO	Ceftolozane-tazobactam IV	Eravacycline IV	Omadacycline IV
Amoxicillin-clavulanate PO	Ceftriaxone IV	Ertapenem IV	Oxacillin/nafcillin IV
Ampicillin IV	Cefuroxime IV	Fosfomycin PO	Nitrofurantoin capsules PO
Ampicillin-sulbactam IV	Cefuroxime PO	Gentamicin IV	Nitrofurantoin suspension PO
Azithromycin IV/PO	Cephalexin PO	Imipenem IV	Penicillin G IV
Aztreonam IV	Ciprofloxacin IV	Imipenem-relebactam IV	Piperacillin-tazobactam IV
Cefazolin IV	Ciprofloxacin PO	Levofloxacin IV/PO	Polymyxin B IV
Cefepime IV	Clarithromycin PO	Linezolid IV/PO	Rifampin IV/PO
Cefiderocol IV	Clindamycin IV	Meropenem IV	Tigecycline IV
Cefoxitin IV	Clindamycin PO	Meropenem-vaborbactam IV	Tobramycin IV
Cefpodoxime PO	Colistin IV	Metronidazole IV/PO	Trimethoprim-sulfamethoxazole (TMP-SMX) IV/PO
Ceftaroline IV	Dalbavancin IV	Minocycline IV/PO	Vancomycin IV
Ceftazidime IV	Daptomycin IV	Moxifloxacin IV/PO	
Antifungals			
Amphotericin B Deoxycholate IV	Isavuconazole IV/PO	Posaconazole tablet IV/PO	Voriconazole PO
Liposomal Amphotericin B IV	Itraconazole PO	Posaconazole suspension PO	
Fluconazole IV/PO	Itraconazole PO (Tolsura)	Rezafungin IV	
Flucytosine PO	Micafungin IV	Voriconazole IV	
Antivirals			
Acyclovir IV	Ganciclovir IV	Oseltamivir PO	Valacyclovir PO
Acyclovir PO	Letermovir IV/PO	Peramivir IV	Valganciclovir PO
Baloxavir PO	Maribavir IV	Remdesivir IV	Zanamivir INH
Cidofovir IV	Molnupiravir PO	Ribavirin PO	
Foscarnet IV	Nirmatrelvir-ritonavir PO	Ribavirin PO Lung Transplant	
Footnotes			

Table of Contents

ANTIBIOTICS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
AMIKACIN (IV)	[See Aminoglycoside Dosing in Adult Patients]				
AMOXICILLIN (PO)					
Cystitis (lower urinary tract infection)	500 mg q8h	500 mg q8h	500 mg q12h	500 mg q24h	500 mg q8h
Helicobacter pylori infection	1 g q12h	1 g q12h	500 mg q12h	500 mg q24h	1 g q12h
Pneumonia, other systemic infections	1 g q8h	1 g q8h	1 g q12h	1 g q24h	1 g q8h
AMOXICILLIN-CLAVULANATE (PO)	875 mg q12h	875 mg q12h	500 mg q12h	500 mg q24h	875 mg q12h
AMPICILLIN (IV)					
Cystitis (lower urinary tract infection)	1 g q6h	1 g q8h	1 g q12h	1 g q24h	1 g q8h
Systemic infection	2 g q6h	2 g q8h	2 g q12h	2 g q24h	2 g q8h
Endocarditis/CNS infection	2 g q4h	2 g q6h	2 g q8h	2 g q12h	2 g q6h
AMPICILLIN-SULBACTAM (IV)					
Cystitis (lower urinary tract infection)	1.5 g q6h	1.5 g q8h	1.5 g q12h	1.5 g q24h	1.5 g q8h
Systemic infection	3 g q6h	3 g q8h	3 g q12h	3 g q24h	3 g q8h
Acinetobacter infection	3 g q4h	3 g q6h	3 g q8h	3 g q12h	3 g q6h
AZITHROMYCIN (IV/PO)					
Systemic infection	500 mg x1, then 250 mg q24h				
Legionella or Pneumonia in ICU	500 mg q24h				
Mycobacterial infection	Consult infectious diseases				
AZTREONAM (IV)					
All infections, other than infection of CNS	2 g q8h	2 g q8h	2 g q12h	1 g q12h	2 g q8h
CEFAZOLIN (IV)					
Cystitis (lower urinary tract infection)	1 g q8h	1 g q8h	1 g q12h	500 mg q24h	1 g q8h
Systemic infection	2 g q8h	2 g q8h	2 g q12h	1 g q24h or 2 g post HD 3x/week	2 g q8h
CEFEPIME (IV)	Extended infusion over 4 hours is preferred for most patients				
Standard dosing for all infections that are not listed below	2 g q12h	1 g q12h	1 g q24h	2 g post HD 3x/week or 500 mg q24h	1 g q12h
Suspected or proven Pseudomonas *infection, pneumonia, febrile neutropenia, CNS infections, septic shock, burn*	2 g q8h	2 g q12h	1 g q12h	2 g post HD 3x/week or 1 g q24h	2 g q12h

CEFIDEROCOL (IV)	CrCl >120 mL/min	CrCl 60-119 mL/min	CrCl 30-59 mL/min	CrCl 15-29 mL/min	CrCl < 15 mL/min or iHD	CRRT
All indications	2 g q6h	2 g q8h	1.5 g q8h	1 g q8h	750 mg q12h	Refer to footnote 5

ANTIBIOTICS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
CEFOXITIN (IV)					
Systemic infection	2 g q6h	2 g q8h	2 g q12h	1 g q24h	2 g q8h
Mycobacterial infection	3 g q6h	3 g q8h	3 g q12h	2 g q24h	3 g q8h

ANTIBIOTICS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
CEFPODOXIME (PO)					
Cystitis (lower urinary tract infection)	100 mg q12h	100 mg q12h	100 mg q24h	100 mg post HD 3x/week	100 mg q12h
Systemic infection	400 mg q12h	400 mg q12h	400 mg q24h	400 mg post HD 3x/week	400 mg q12h
CEFTAROLINE (IV)					
Skin & soft tissue infection or cystitis (lower urinary tract infection)	600 mg q12h	400 mg q12h	300 mg q12h	200 mg q12h	400 mg q12h
Systemic infection	600 mg q8h	400 mg q8h	300 mg q8h	200 mg q8h	400 mg q8h
CEFTAZIDIME (IV)	2 g q8h	2 g q12h	1 g q12h	1 g q24h or 2 g post-HD 3x/week	2 g q12h
CEFTAZIDIME-AVIBACTAM (IV)	2.5 g (ceftazidime 2 g - avibactam 0.5 g) q8h	1.25 g (ceftazidime 1 g - avibactam 0.25 g) q8h	0.94 g (ceftazidime 0.75 g - avibactam 0.19 g) q12h	0.94 g (ceftazidime 0.75 g - avibactam 0.19 g) q24h or 2.5 g (ceftazidime 2 g – avibactam 0.5 g) post HD 3x/week	1.25 g (ceftazidime 1 g - avibactam 0.25 g) q8h
CEFTOLOZANE-TAZOBACTAM (IV)					
Cystitis (lower urinary tract infection)	1.5 g q8h	750 mg q8h	375 mg q8h	750 mg x1, then 150 mg q8h	750 mg q8h
Systemic infection, documented or suspected *Pseudomonas* infection, CF exacerbation	3 g q8h	1.5 g q8h	750 mg q8h	2.25 g x1, then 450 mg q8h	1.5 g q8h
CEFTRIAXONE (IV)					
Cystitis (lower urinary tract infection)	1 g q24h				
Community-acquired pneumonia, endocarditis, systemic infection	2 g q24h				
CNS infections or enterocooccal endocarditis (used in combination with ampicillin)	2 g q12h				
CEFUROXIME (IV)					
Cystitis (lower urinary tract infection)	750 mg q8h	750 mg q8h	750 mg q12h	750 mg q24h	750 mg q8h
Systemic infection	1.5 g q8h	1.5 g q8h	1.5 g q12h	1.5 g q24h	1.5 g q8h
CEFUROXIME (PO)					
Cystitis (lower urinary tract infection)	250 mg q12h	250 mg q12h	250 mg q24h	250 mg q48h	250 mg q12h
Systemic infection	500 mg q12h	500 mg q12h	500 mg q24h	500 mg q48h	500 mg q12h
CEPHALEXIN (PO)					
Uncomplicated Cystitis (lower urinary tract infection)	500 mg q12h	500 mg q12h	500 mg q12h	500 mg q24h	500 mg q12h
Other urinary tract infection and systemic infection	500 mg q6h or 1 g q8h	500 mg q6h or 1 g q8h	500 mg q8h or 1 g q12h	500 mg q24h or 1 g q24h	500 mg q6h or 1 g q8h
CIPROFLOXACIN (IV)					
Cystitis (lower urinary tract infection)	400 mg q12h	400 mg q12h	400 mg q24h	200 mg q24h	400 mg q24h
Systemic infection	400 mg q8h	400 mg q8h	400 mg q12h	400 mg q24h	400 mg q8h

Table of Contents

ANTIBIOTICS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
CIPROFLOXACIN (PO)					
Cystitis (lower urinary tract infection)	500 mg q12h	500 mg q12h	500 mg q24h	250 mg q24h	250 mg q12h
Systemic infection, pyelonephritis, prostatitis	750 mg q12h	750 mg q12h	750 mg q24h	500 mg q24h	750 mg q12h
CLARITHROMYCIN	500 mg 12h	500 mg q12h	500 mg q24h	500 mg q24h	500 mg q12h
CLINDAMYCIN (IV)	600-900 mg q8h				
CLINDAMYCIN (PO)	300-450 mg q6-8h				
COLISTIN BASE (IV) *					
Severe infection	5 mg/kg x1 (max: 300 mg) then 2.5 mg/kg q12h	5 mg/kg x1 (max: 300 mg) then 1.75 mg/kg q12h	5 mg/kg x1 (max: 300 mg) then 2.5 mg/kg q24h	5 mg/kg x1 (max: 300 mg) then 1.5 mg/kg q24h	5 mg/kg x1 (max: 300 mg) then 2.5 mg/kg q12h
DALBAVANCIN (IV)					
Skin & soft tissue infection	1.5gm x1 dose	1.5gm x1 dose	1.125gm x1 dose	1.5gm for patients on HD	No Data Available
Bone & Joint infection	1.5gm given on day 1 and day 8	1.5gm given on day 1 and day 8	1.5gm given on day 1 and day 8	1.5gm given on day 1 and day 8	No Data Available
DAPTOMYCIN (IV) *					
Skin & soft tissue or urinary tract infection	4 mg/kg q24h	4 mg/kg q24h	4 mg/kg q48h	4 mg/kg post HD 3x/week or q48h	4 mg/kg q24h
Systemic infection	6 mg/kg q24h	6 mg/kg q24h	6 mg/kg q48h	6 mg/kg post HD 3x/week or q48h	6 mg/kg q24h
MRSA endocarditis/endovascular infection or systemic infection	8-10 mg/kg q24h	8-10 mg/kg q24h	8-10 mg/kg q48h	8-10 mg/kg post HD 3x/week or q48h	8-10 mg/kg q24h
Enterococcus/VRE endocarditis/endovascular infection	10-12 mg/kg q24h	10-12 mg/kg q24h	10-12 mg/kg q48h	10-12 mg/kg post HD 3x/week or q48h	10-12 mg/kg q24h
DOXYCYCLINE (IV/PO)					
Systemic infection	200 mg x1, then 100 mg q12h				
Acinetobacter infection	200 mg x1, then 100-200 mg q12h				
ERAVACYCLINE (IV)	1 mg/kg q12h				
ERTAPENEM (IV)	1 g q24h	1 g q24h	500 mg q24h	500 mg q24h or 1000 mg post HD 3x/week (preferred for outpatients)	1 g q24h
FOSFOMYCIN (PO)					
Cystitis (lower urinary tract infection)	3 g x1 dose				
Complicated lower urinary tract infection	3 g q48h x3 doses				
GENTAMICIN (IV)	[See Aminoglycoside Dosing in Adult Patients]				
IMIPENEM (IV)					
Standard dose for most infections	500 mg q6h	500 mg q8h	500 mg q12h	250 mg q12h	500 mg q8h
LEVOFLOXACIN (IV/PO)					
Cystitis (lower urinary tract infection)	500 mg x1, then 250 q24h	500 mg x1, then 250 q24h	500 mg x1, then 250 mg q48h	500 mg x1, then 250 mg q48h	500 mg x1, then 250 q24h
Pyelonephritis or non-urinary systemic infection	750 mg q24h	750 mg q48h	750 mg x1, then 500 mg q48h	750 mg x1, then 500 mg q48h	750 mg q48h

IMIPENEM-RELEBACTAM (IV)	CrCl ≥90 ml/min	CrCl 60-89 ml/min	CrCl 30-59 ml/min	CrCl 15-29 ml/min	iHD	CRRT
	1.25 g q6h	1 g q6h	0.75 g q6h	0.5 g q6h	0.5 g q6h	1.25g q8h

MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

Table of Contents

ANTIBIOTICS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
LINEZOLID (IV/PO)	600 mg q12h				
MEROPENEM-VABORBACTAM (IV)	**eGFR (mL/min/1.73m²) = 175 * (serum creatinine)$^{-1.154}$ * (age)$^{-0.203}$ * (0.742 if female) * (1.212 if African American)**				
	≥ 50 mL/min/1.73m²	**49-30 mL/min/1.73m²**	**29-15 mL/min/1.73m²**	**< 15 mL/min/1.73m²**	
All indications	4 g (mero 2 g - vabor 2 g) q8h	2 g (mero 1 g - vabor 1 g) q8h	2 g (mero 1 g - vabor 1 g) q12h	1 g (mero 500 mg - vabor 500 mg) q12h	
MEROPENEM (IV)	Extended infusion over 3 hours is preferred for most patients				
Standard dosing for all infections not listed below	1 g q8h	1 g q12h	500 mg q12h	500 mg q24h	1 g q12h
Suspected or proven Acinetobacter or Pseudomonas *infection, febrile neutropenia, CNS infections, septic shock, burn*	2 g q8h	2 g q12h	1 g q12h	1 g q24h	2 g q12h
METRONIDAZOLE (IV/PO)	500 mg q8h				
MINOCYCLINE (IV/PO)					
Systemic infection	200 mg x1, then 100 mg q12h				
Acinetobacter infection	200 mg q12h				
MOXIFLOXACIN (IV/PO)	400 mg q24h				
OMADACYCLINE (PO)	450 mg q24h x2, then 300 mg q24h				
OMADACYCLINE (IV)	200 mg x1, then 100 mg q24h				
OXACILLIN/NAFCILLIN (IV)	2 g q4h				
NITROFURANTOIN (capsules – cystitis only)	100 mg q12h		Not recommended		
NITROFURANTOIN (suspension – cystitis only)	50-100 mg q6h		Not recommended		
PENICILLIN G (IV)					
Viridans group streptococci native valve endocarditis (penicillin MIC ≤ 0.12 mg/L)	3 million units q4h	3 million units q4h	3 million units q6h	1.5 million units q6h	3 million units q4h
Viridans group streptococci native valve endocarditis (penicillin MIC > 0.12 mg/L), enterococcal endocarditis, prosthetic valve endocarditis, or neurosyphilis	4 million units q4h	4 million units q4h	4 million units q6h	2 million units q6h	4 million units q4h
PIPERACILLIN-TAZOBACTAM (IV)	Extended infusion over 3 hours is preferred for most patients				
Urinary Tract Infection (upper or lower tract)	4.5 g q8h	4.5 g q8h	4.5 g q12h	4.5 g q12h	4.5 g q8h
Standard dosing for most infections	4.5 g q6h	4.5 g q8h	4.5 g q8h	4.5 g q12h	4.5 g q8h
POLYMYXIN B (IV) *	2 mg/kg x1 (max: 200 mg) then 100 mg q12h				
RIFAMPIN (IV/PO)					
Non-cavitary, non-tuberculous Mycobacterial pulmonary disease	600 mg 3x/week				
Mycobacterial infection	450 mg q24h (< 50 kg) or 600 mg q24h (≥ 50 kg)				
Prosthetic valve Staphylococcal endocarditis	300 mg q8h				
TIGECYCLINE (IV)					
Systemic infection	100 mg x1, then 50 mg q12h				
Acinetobacter infection	100 mg x1, then 100 mg q12h				
TOBRAMYCIN (IV)	[See Aminoglycoside Dosing in Adult Patients]				
TRIMETHOPRIM-SULFAMETHOXAZOLE (IV/PO)[4,*]					
Cystitis (lower urinary tract infection), uncomplicated pyelonephritis	1 DS tab q12h	1 DS tab q12h	1 DS tab q12-24h	1 DS tab q24h	1 DS tab q12h
Skin & soft tissue	1-2 DS tab q12h	1-2 DS tab q12h	1-2 DS tab q12-24h	1-2 DS tab q24h	1-2 DS tab q12h
Non-urinary severe systemic infection	5 mg/kg q12h	5 mg/kg q12h	5 mg/kg q24h	5 mg/kg q24h	5 mg/kg q12h
PCP pneumonia/Nocardia/Meningitis	5 mg/kg q8h	5 mg/kg q8h	5 mg/kg q12h	5 mg/kg q24h	5 mg/kg q12h
VANCOMYCIN (IV)	[See Vancomycin Nomogram]				

ANTIFUNGALS	CrCl[1] >50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] <10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
AMPHOTERICIN B DEOXYCHOLATE (IV) *	0.75-1 mg/kg q24h				
LIPOSOMAL AMPHOTERICIN B (AMBISOME) *					
Systemic infection	3-5 mg/kg q24h				
Mucormycosis	5-10 mg/kg q24h				
FLUCONAZOLE (IV/PO)					
Urinary tract infection or oropharyngeal thrush	200 mg q24h	200 mg x1, then 100 mg q24h	200 mg x1, then 100 mg q24h	200 mg x1, then 100 mg q48h	400 mg q24h
Systemic infections (not listed below), definitive therapy for candidemia	800 mg x1, then 400 mg q24h	800 mg x1, then 200 mg q24h	800 mg x1, then 200 mg q24h	800 mg x1, then 200 mg q48h or post HD 3X/week	800 mg q24h
Non-urinary Candida glabrata *infection,* Candida *endocarditis,* Candida *endophthalmitis*	1,600mg x1, then 800 mg q24h	1,600mg x1 load, then 400 mg q24h	1,600mg x1 load, then 400 mg q24h	1,600 mg x1 load, then 400 mg q48h or post HD 3X/week	1,600 mg q24h
Cryptococcal meningitis, induction dosing	1,200 mg q24h	1,200 mg X 1, then 600 mg q24h	1,200 mg X 1, then 600 mg q24h	1,200 mg X 1, then 600 mg q48h or post HD 3X/week	Contact ID PharmD
FLUCYTOSINE (PO)*	25 mg/kg q6h	25 mg/kg q8-12h	25 mg/kg q24h	25 mg/kg post HD	25 mg/kg q8-12h
ISAVUCONAZOLE (IV/PO) Dosing expressed in mg of isavuconazonium sulfate (prodrug of isavuconazole)	**Maintenance dosing may vary from below based on therapeutic drug monitoring** 372 mg q8h x6, then 372 mg q24h starting 12h after load				
ITRACONAZOLE (PO CAPSULE AND LIQUID)	200 mg q8h x9, then 200 mg q12h				
ITRACONAZOLE (TOLSURA CAPSULE)	130 mg q8h x9, then 130 mg q12h				
MICAFUNGIN (IV)					
Prophylaxis: primary ALL and pre-engraftment HSCT recipients	50 mg q24h				
Treatment: Invasive candidiasis Prophylaxis: primary AML, relapsed/refractory ALL, and post-engraftment HSCT recipients	100 mg q24h				
Invasive aspergillosis, esophageal candidiasis, infective endocarditis	150 mg q24h				
POSACONAZOLE (PO tablet, DR suspension or IV)	Maintenance dosing may vary from below based on therapeutic drug monitoring				
Prophylaxis or treatment	300 mg q12h x2, then 300 mg q24h				
POSACONAZOLE (PO IR suspension)	Maintenance dosing may vary from below based on therapeutic drug monitoring				
Prophylaxis	200 mg q8h				
Treatment	200 mg q6h				
REZAFUNGIN (IV)	400 mg load on Day 1 followed 200 mg weekly starting on Day 8				
VORICONAZOLE (IV)	Maintenance dosing may vary from below based on therapeutic drug monitoring				
Prophylaxis	200 mg q12h				
Treatment	6 mg/kg q12h x2, then 4 mg/kg q12h				
VORICONAZOLE (PO)	Maintenance dosing may vary from below based on therapeutic drug monitoring				
Prophylaxis	200 mg q12h				
Treatment	6 mg/kg q12h x2, then 4 mg/kg q12h				

ANTIVIRALS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
ACYCLOVIR (IV)*					
Herpes Simplex Prophylaxis	200 mg q12h	200 mg q12h	200 mg q24h	100 mg q24h	200 mg q12h
Mild/moderate HSV mucocutaneous infection and genital infection	5 mg/kg q8h	5 mg/kg q12h	5 mg/kg q24h	2.5 mg/kg q24h	5 mg/kg q12h
Severe HSV mucocutaneous infection and genital infection	5 or 10 mg/kg q8h	5 or 10 mg/kg q12h	5 or 10 mg/kg q24h	2.5 or 5 mg/kg q24h	5 or 10 mg/kg q12h
Encephalitis; meningitis; VZV infection	10 mg/kg q8h	10 mg/kg q12h	10 mg/kg q24h	5 mg/kg q24h	10 mg/kg q12h
ACYCLOVIR (PO)					
Herpes Simplex Prophylaxis	400 mg q12h	400 mg q12h	400 mg q12h	400 mg q24h	400 mg q12h
Herpes Zoster	800 mg 5x/day	800 mg q6h	800 mg q8h	800 mg q12h	800 mg q6h
Herpes labialis	400 mg q8h	400 mg q8h	400 mg q12h	400 mg q12h	400 mg q8h
Genital herpes, initial episode	400 mg q8h	400 mg q8h	400 mg q12h	400 mg q12h	400 mg q8h
Genital herpes, recurrence	400 mg q8h	400 mg q8h	400 mg q12h	400 mg q12h	400 mg q8h
BALOXAVIR (PO)					
Treatment for patients 40 kg to <80kg	40 mg x1				
Treatment for patients ≥80 kg	80 mg x1				
CIDOFOVIR (IV)*					
BK cystitis	1 mg/kg x1 then discuss subsequent dosing with ID pharmacy/consultation (no probenecid)				
All other indication (e.g., ganciclovir-resistant CMV, adenovirus)	5 mg/kg x1; then discuss subsequent dosing with ID pharmacy/consult service (administer with probenecid 2 g 3 hours prior to cidofovir dose, then 1 g at 2 hours and 8 hours after the infusion)				

FOSCARNET (IV)*	mL/min/kg = [(140-age)]/72*SCr; multiply by 0.85 for females						
	≥ 1.4 mL/min/kg	1.0 - < 1.4 mL/min/kg	0.8 - < 1.0 mL/min/kg	0.6 - < 0.8 mL/min/kg	0.5 - < 0.6 mL/min/kg	0.4 - < 0.5 mL/min/kg	< 0.4 mL/min/kg
Induction, Treatment for CMV	90 mg/kg q12h	70 mg/kg q12h	50 mg/kg q12h	80 mg/kg q24h	60 mg/kg q24h	50 mg/kg q24h	No data
Maintenance, Treatment for CMV	90 mg/kg q24h	70 mg/kg q24h	50 mg/kg q24h	80 mg/kg q48h	60 mg/kg q48h	50 mg/kg q48h	No data

ANTIVIRALS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
GANCICLOVIR (IV)*					
Induction, Treatment	5 mg/kg q12h	2.5 mg/kg q24h	1.25 mg/kg q24h	1.25 mg/kg post HD 3x/week	2.5 mg/kg q12h
Maintenance, Treatment	5 mg/kg q24h	1.25 mg/kg q24h	0.625 mg/kg q24h	0.625 mg/kg post HD 3x/week	2.5 mg/kg q24h
LETERMOVIR (PO/IV)	480 mg q24h 240 mg q24h (if on cyclosporine)				
MARIBAVIR (PO)	400 mg q12h				
MOLNUPIRAVIR (PO)	800 mg q12h x5 days				

NIRMATRELVIR-RITONAVIR (PO)	MiChart eGFR ≥ 60 mL/min	MiChart eGFR ≥ 30 - < 60 mL/min	MiChart eGFR < 30 mL/min, HD, CRRT
1 nirmatrelvir tablet = 150 mg 1 ritonavir tablet = 100 mg	2 nirmatrelvir tablets, 1 ritonavir tablet q12h x5 days	1 nirmatrelvir tablet, 1 ritonavir tablet q12h x5 days	Not recommended

ANTIVIRALS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
OSELTAMIVIR (PO)					
Prophylaxis	75 mg q24h	75 mg q24h	75 mg q48h	75 mg 2x/week	75 mg q24h
Treatment	75 mg q12h	75 mg q12h	75 mg q24h	75 mg q48h	75 mg q12h
PERAMIVIR (IV)	600 mg q24h	200 mg q24h	100 mg q24h	100 mg post HD	600 mg q24h

MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

[Table of Contents]

ANTIVIRALS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
RIBAVIRIN (PO) (Treatment of Respiratory Syncytial Virus in Hematology patients)	600 mg q8h	400 mg q8h	200 mg q8h	200 mg q24h	400 mg q8h

RIBAVIRIN (PO) Lung Transplant recipients *	**≥ 20 mL/min**	**< 20 mL/min**	**HD**	**CRRT**
Treatment of Respiratory Syncytial Virus in Lung Transplant recipients	8 mg/kg q6h x48 hours, then 8 mg/kg q24h	8 mg/kg q6h x48 hours, then 4 mg/kg q24h	8 mg/kg q6h x48 hours, then 200 mg q24h	No data

ANTIVIRALS	CrCl[1] > 50 mL/min	CrCl[1] 30-49 mL/min	CrCl[1] 10-29 mL/min	CrCl[1] < 10 mL/min; HD[2]	CRRT (rate 2.5 L/hr)[3]
REMDESIVIR (IV)					
Treatment, moderate/severe COVID-19	200 mg IV x1, then 100 mg IV q24h x4 doses				
Treatment, mild COVID-19	200 mg IV x1, then 100 mg IV q24h x3 doses				
VALACYCLOVIR (PO)					
Herpes labialis	2 g q12h	1 g q12h	500 mg q12h	500 mg x1	500 mg q12h
Herpes zoster	1 g q8h	1 g q12h	1 g q24h	500 mg q24h	1 g q24h
Genital herpes, initial episode	1 g q12h	1 g q12h	1 g q24h	500 mg q24h	1 g q24h
Genital herpes, recurrence	1 g q24h	1 g q24h	500 mg q24h	500 mg q24h	500 mg q24h

VALGANCICLOVIR (PO)	CrCl ≥ 60 mL/min	CrCl 40-59 mL/min	CrCl 25-39 mL/min	CrCl 10-24 mL/min	CrCl < 10 mL/ min	CRRT (rate 2.5 L/hr)
Prophylaxis	See organ-specific solid organ transplant guidelines					
Induction	900 mg q12h	450 mg q12h	450 mg q24h	450 mg q48h	450 mg post HD 3x/week	450 mg q12h
Maintenance/secondary prophylaxis	900 mg q24h	450 mg q24h	450 mg q48h	450 mg 2x/week	450 mg 2x/week	450 mg q24h
ZANAMIVIR (INHALED)						
Prophylaxis	10 mg (2 inhalations) q24h					
Treatment	10 mg (2 inhalations) q12h					

Dosing recommendations may fall outside manufacturer guidelines.

1. Cockcroft-Gault; $CrCl\left(\frac{mL}{min}\right) = \frac{(140-Age)*Weight\ (kg)}{72*SCr(mg/dL)} * (0.85\ for\ females)$ *For weight*, Actual body weight should be used for non-overweight patients.
   For overweight patients (defined as BMI >/= 25), use adjusted body weight.
   $Ideal\ body\ weight\ (male) = 50 + (2.3 * height\ in\ inches > 60\ inches)$; $Ideal\ body\ weight\ (female) = 45 + (2.3 * height\ in\ inches > 60\ inches$;
   $Adjusted\ body\ weight = 0.4(actual\ body\ weight - ideal\ body\ weight) + ideal\ body\ weight$
2. Schedule dose after hemodialysis; if dosed multiple times daily, schedule subsequent doses after hemodialysis.
3. Dosing may be different for more aggressive CRRT flow rates. Consult clinical pharmacist for dosing recommendations.
4. Based on trimethoprim component.
5. Manufacturer recommendations for cefiderocol dosing in CRRT:

Effluent Flow Rate	Dose
2 L/hr or less	1.5 g q12h
2.1 to 3 L/hr	2 g q12h
3.1 to 4 L/hr	1.5 g q8h
4.1 L/hr or greater	2 g q8h

* For dosing in obese patients, please see [Weight-Based Dosing Recommendations for Intravenous Antimicrobials in Obese Adult Patients]

Antimicrobial Subcommittee Approval:	10/19; 06/20; 03/21; 05/21; 10/21; 07/23; 12/23	Originated:	Unknown
P&T Approval:	11/19; 07/20; 04/21, 11/21,8/23	Last Revised:	12/23

Revision History:

01/20: Added eravacycline and changed CrCl recommendations.
08/20: Added cifiderocol and imipenem-relebactam
12/20: Updated ceftazidime and ceftazidime-avibactam dosing
03/21: Updated vancomycin hyperlink
04/21: Added SUBA-itraconazole and omadacycline, added cefiderocol CRRT dosing
05/21: Added tigecycline, updated minocylcine dosing, updated ertapenem HD dosing
06/21: Adjusted meropenem dosing criteria, adjusted minocycline dosing
07/21: Adjusted cefepime and meropenem dosing criteria
03/22: Added clarithromycin, maribavir, molnupiravir, nirmatrelvir-ritonavir, and remdesivir
09/22: Adjusted ceftriaxone categories
03/23: Revised aztreonam, cefepime, cefiderocol, cephalexin, imipenem, imipenem-relebactam, meropenem, piperacillin-tazobactam, fluconazole, and posaconazole
08/23: Revised antifungal sections
12/23: Added dalbavancin and rezafungin

The recommendations in this guide are meant to serve as treatment guidelines for use at Michigan Medicine facilities. If you are an individual experiencing a medical emergency, call 911 immediately. These guidelines should not replace a provider's professional medical advice based on clinical judgment, or be used in lieu of an Infectious Diseases consultation when necessary. As a result of ongoing research, practice guidelines may from time to time change. The authors of these guidelines have made all attempts to ensure the accuracy based on current information, however, due to ongoing research, users of these guidelines are strongly encouraged to confirm the information contained within them through an independent source.

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