

McLAREN PORT HURON 2023 ANTIBIOGRAM DRUG THERAPY POCKET GUIDE



ANTIMICROBIAL SUSCEPTIBILITIES FROM JANUARY 1, 2022 – DECEMBER 31, 2022

For questions, please contact the
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Number of Isolates	GRAM NEGATIVE BACTERIA										GRAM POSITIVE BACTERIA									
	<i>Acinetobacter baumannii</i>	<i>Citrobacter freundii</i>	<i>Enterobacter cloacae</i>	<i>Escherichia Coli</i>	<i>Klebsiella oxytoca</i>	<i>Klebsiella pneumoniae</i>	<i>Morganella morganii</i>	<i>Proteus mirabilis</i>	<i>Pseudomonas aeruginosa</i>	<i>Serratia marcescens</i>	<i>Enterococcus faecalis</i>	<i>Enterococcus faecium</i>	<i>Vancomycin Resistant Enterococcus species</i>	<i>MRSA</i>	<i>Staphylococcus aureus (MSSA)</i>	<i>Staphylococcus epidermidis</i>	<i>Staphylococcus hominis</i>	<i>Staphylococcus lugdunensis</i>	<i>Streptococcus agalactiae</i>	<i>Streptococcus pneumoniae</i>
Amikacin	38	48	174	1855	138	460	80	290	411	93	493	99	86	509	701	202	64	52	118	44
Amoxicillin-Clavulanate	97	100	100	99	100	99	100	98	95	100				100	49	48	48	92		95
Ampicillin-Subactam	89	60		83	65	72	83	3	88					99	49	48	48	92		100
Ampicillin		27		58				73			99	16	27							
Azithromycin															62*	33				
Aztreonam		77	82	91	91	90	92	92	79	74										
Cefazolin		2		85	47	87	87	87						100*	49	48	48	92		
Cefepime		84	100	90	92	97	92	98	95	98				100*	53*	48				95
Cefoxitin		2		96	97	90	90	99												
Ceftazidime		86	66	81	91	97	91	86	95	66										
Cefturoxime		52	62	71	90	93	91	84	95	73										95
Ciprofloxacin		86	87	94	82	98	93	90	64	84	75	9	26	85	67	78	96			90
Clindamycin													66	73	61	67	74	45		90
Daptomycin											100	100	100	100	100	100	100	100	100	
Ertapenem		100	89	99	100	99	98	100												
Erythromycin											27				16	56	30*	32	74	38
Gentamicin		94	95	95	89	98	95	90	94	89	100	90	79	98	96	86	90	100		
Gent Synergy											80	90								
Levofloxacin		86	91	97	83	98	96	94	71	100	78	12	27	88	67	78	96	97	100	
Linezolid											98	98	97	100	100	100	100	100	100	
Mertopenam		94	100	100	100	100	100	100	93	100	99	58	62	100*	100	100	100	100	100	90
Nitrofurantoin *for uncomplicated UTI											99									
Oxacillin											98	18	26							
Piperacillin-Tazobactam		91	89	98	94	95	100	100	91	82										76
Rifampin											51	10	24	99	99	100	100	100		
Tetracyclines		84	87	86	86	93	85	33		11	30	36	11	89	93	82	82	88		81
Tobramycin		94	95	94	92	97	93	96	94	87										
Trimethoprim - Sulfamethoxazole		81	87	92	77	94	89	87	68	100				82	98	62	65	96		
Vancomycin											94	39		100	100	100	100	100		100

Blue highlighting indicates organisms that crossed above 80% susceptible compared to 2021; Red highlighting indicates organisms that crossed below 80% susceptible compared to 2021 data

Antibiotic dosing based on normal renal function

(pharmacist will renally adjust as needed according to renal dosing policy)

Antimicrobials	Usual Dose per indication					
Acyclovir IV	HSV Suppression = 2.5 mg/kg q8h		HSV Treatment = 5 mg/kg q8h		Herpes Zoster or Encephalitis = 10 mg/kg q8h	
Acyclovir PO	HSV Suppression = 400 mg q12h		HSV Treatment = 400 mg three times daily		Herpes Zoster or Encephalitis = 800 mg five times daily	
Amoxicillin PO	Pneumonia = 1 gm q8h			Systemic Infection = 500 mg q8h		
Amoxicillin/clavulanate PO	875 mg q12h					
Ampicillin IV	Systemic Infection = 2 gm q6h			Bloodstream/Endocarditis/CNS Infection = 2 gm q4h		
Ampicillin/sulbactam IV	Systemic Infection = 3 gm q6h			Acinetobacter Infection = Contact ID physician/ pharmacy for dosing assistance. Sulbactam is the active component. Higher than typical doses may be indicated for this pathogen.		
Aztreonam IV*	Systemic Infection = 2 gm q8h			CNS Infection = 2 gm q6h		
Cefazolin IV	Systemic Infection = 2 gm q8h			Cystitis (lower urinary tract infection) = 1 gm q8h		
Cefdinir PO	300 mg q12h					
Cefepime IV*	Systemic Infection = 2 gm q8h			Cystitis (lower urinary tract infection) = 1 gm q8h		
Cefoxitin IV	2 gm q6h					
Ceftazidime IV*	2 gm q8h					
Ceftazidime/avibactam IV	2.5 gm q8h					
Ceftriaxone IV	Systemic Infection = 2 gm daily			Cystitis (lower urinary tract infection) = 1 gm daily		
Ceftolozane/tazobactam IV	Pulmonary Infections/Sepsis = 3 gm q8h			Non-pulmonary Infections = 1.5 gm q8h		
Cephalexin PO	Systemic Infection = 500 mg q6h			Cystitis (lower urinary tract infection) = 500 mg q12h		
Ciprofloxacin IV	Systemic Infection = 400 mg q8h			Cystitis (lower urinary tract infection) = 400 mg q12h		
Ciprofloxacin PO	Systemic Infection = 750 mg q12h			Cystitis (lower urinary tract infection) = 500 mg q12h		
Daptomycin IV	Skin & Soft Tissue/ Urinary Tract Infection = 4 mg/kg q24h		Bacteremia/ Endocarditis = 6 mg/kg q24h		VRE Bacteremia/Endocarditis = 10 mg/kg q24h	
Ertapenem IV	1 gm q24h					
Fluconazole IV/PO	Oropharyngeal Thrush/ Urinary Tract Infection = 200 mg q24h		Invasive <i>Candida</i> Infection = 800 mg x1, followed by 400 mg q24h		<i>Candida glabrata</i> Infection = 800 mg q24h	
Ganciclovir IV	CMV Induction = 5 mg/kg q12h			CMV Maintenance = 5 mg/kg q24h		
Levofloxacin IV/PO	Systemic Infection = 750 mg q24h					
Meropenem IV*	Systemic Infection = 500 mg q6h					
Osetamivir PO	Treatment = 75 mg q12h			Prophylaxis = 75 mg q24h		
Penicillin G IV	Standard/ Maximum Dose/ Endocarditis/ Necrotizing Fasciitis/ Toxic Shock Syndrome = 4 million units q4h			Reduced Dose (Highly Penicillin-Sensitive Organisms; MIC ≤ 0.12 mcg/mL)/ Endocarditis = 2 million units q4h		
Piperacillin/tazobactam IV*	3.375 gm q8h					
Sulfamethoxazole-trimethoprim IV (weight-based dosing is based on the trimethoprim component)	Systemic Infection (Non-Urinary) = 5 mg/kg q12h			PCP Pneumonia/ Nocardia/ Meningitis = 5 mg/kg q8h		
Sulfamethoxazole-trimethoprim PO	Systemic Infection = 1-2 DS tablets q12h			Cystitis (lower urinary tract infection) = 1 DS tablet q12h		
Valacyclovir PO	1 st Episode HSV = 1 gm q12h	Recurrent HSV = 500 mg q12h	Recurrent HSV – Immunocompromised = 1 gm q12h	HSV Suppression = 500 mg to 1000 mg	HSV Suppression – Immunocompromised = 500 mg q12h	Shingles/ VZV = 1 gm q8h

*Extended Interval Dosing utilized, excluding ER, OR, Pediatrics and First doses

Antibiotics Utilizing Extended Infusion Dosing:

- Aztreonam (3 hour infusion)
- Cefepime (4 hour infusion)
- Ceftazidime (4 hour infusion)
- Meropenem (3 hour infusion)
- Piperacillin/Tazobactam (4 hour infusion)

Prescribing Considerations:

- Aztreonam reserved for patient with severe β -lactam allergy (alternative: Cefepime)
- Nitrofurantoin for uncomplicated UTI only

Inappropriate Use of Vancomycin:

- Routine surgical prophylaxis
- Treatment of a single positive blood culture for coagulase negative staphylococci
- Eradication of MRSA colonization

Fluoroquinolone use should be avoided in the following:

- Patients with increased risk of aortic aneurysm, rupture or dissection
- Patients with history of tendonitis or tendon ruptures
- Elderly patients due to increased side effects and hepatotoxicity
- Certain uncomplicated infections (i.e. UTI due to increased E. Coli Resistance)

	Beta-lactam Antibiotic Cross-Allergy Chart										
	Pen			1 st Gen	2 nd Gen	3 rd Gen		4 th	Mono	Carb	
(*) = AVOID (cross-reactivity/likely/identical R1 or R2 side chain) (A) = CAUTION (cross-reaction less likely/similar R1 or R2 side chain)											
Pen	Amoxicillin										
	Ampicillin	X									
	Penicillin	X	X								
	Piperacillin	X	X								
1 st Gen	Cefazolin										
	Cephalexin										
2 nd Gen	Cefoxitin										
	Cefuroxime										
3 rd Gen	Cefdinir										
	Cefotaxime										
	Ceftazidime										
	Ceftriaxone										
4 th	Cefepime										
	Aztreonam										
Mono	Ertapenem										
	Meropenem										
Carb	Ertapenem										
	Meropenem										