

McLAREN PORT HURON 2024 ANTIBIOGRAM DRUG THERAPY POCKET GUIDE



ANTIMICROBIAL SUSCEPTIBILITIES FROM JANUARY 1, 2023 – DECEMBER 31, 2023

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>	Vancomycin Resistant <i>Enterococcus</i> species	MRSA	<i>Staphylococcus aureus</i> (MSSA)	<i>Staphylococcus epidermidis</i>	<i>Staphylococcus hominis</i>	<i>Staphylococcus lugdunensis</i>	<i>Streptococcus agalactiae</i>	<i>Streptococcus pneumoniae</i>
Amlkacin	50	45	182	1618	128	382	81	335	438	85	446	84	86	488	655	187	41	36	106	38
Amoxicillin-Clavulanate	91	100	100	99	100	99	100	100	97	100				68	104					
Ampicillin-Subactam	91	57		85				6	86					99	43	43	91			94
Ampicillin		34		57				71			99	13	27							100
Azithromycin														50*	42*					26
Aztreonam	91	81	81	91	92	87	85	90	83	78										
Cefazolin	4			87	43	87	83							99	43	43	91			100
Cefepime	95	95	92	92	95	89	97	94	90	100				100*	42*	44				
Cefoxitin	2			95	96	91	82	98												
Ceftazidime	100	82	83	91	95	89	90	93	92	72										94
Ceftazoxone	66	73	66	90	93	89	84	93		72				100*	42*	44				72
Cefturoxime				83																
Ciprofloxacin	90	95	94	84	96	90	93	62	86	98	73	3		23	85	59	90	100		
Clindamycin														68	68	59	80	89	55	63
Daptomycin											100	100	100	100	100	100	100	100	100	
Ertapenem			100	90	99	100	97	100		97										
Erythromycin											27			17	54	38	34	83	35	29
Gentamicin	92	97	97	88	93	96	92	95	88	100				95	97	94	95	100		
Gent Synergy											89	92	92							
Levofloxacin	97	95	97	84	98	98	95	67	86	100	81	13		28	89	63	90	100	98	100
Linezolid											99	98	97	100	100	100	100	100	100	
Meropenem	97	100	100	100	100	100	98	100	95	97										83
Nitrofurantoin *for uncomplicated UTI											100	46								
Oxacillin	94	29	98	90										100	46					
Penicillin																				
Piperacillin-Tazobactam											99	14	30							65
Rifampin		100	86	98	97	96	99	100	91	83				54	10	30	99	100	100	
Tetracyclines	85	84	90	79	89	81	59	97	94	97				26	20	13	81	93	81	68
Tobramycin	88	93	98	90	95	92	97	94	97	97										
Trimethoprim - Sulfamethoxazole	93	81	94	78	84	88	83	67		98				83	97	64	51	100		77
Vancomycin											95	43		100	100	100	100	100		100

Blue highlighting indicates organisms that crossed above 80% susceptible compared to 2022; Red highlighting indicates organisms that crossed below 80% susceptible compared to 2022 data

Jan 1, 2023 - Dec 31, 2023
Numbers Represent % Susceptibility
Inpatient + Outpatient
(1st isolate of a species per patient)

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

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