

# McLAREN PORT HURON 2022 ANTIBIOGRAM DRUG THERAPY POCKET GUIDE



**ANTIMICROBIAL SUSCEPTIBILITIES FROM  
JANUARY 1, 2021 – DECEMBER 31, 2021**

For questions, please contact the  
McLaren Port Huron Pharmacy at (810) 985-2644

**McLaren**  
PORT HURON

DOING WHAT'S BEST.®

1221 Pine Grove Ave. | Port Huron, Michigan 48060  
mclaren.org/porthuron

**GRAM NEGATIVE BACTERIA**

**GRAM POSITIVE BACTERIA**

**Jan 1, 2021 -  
Dec 31, 2021**  
Number Isolates  
Susceptible %  
Antibiogram  
n = 23 isolates

Number of Isolates	Acinetobacter baumannii	Citrobacter freundii	Enterobacter Aerogenes	Enterobacter cloacae	Escherichia Coli	Klebsiella oxytoca	Klebsiella pneumoniae	Morganella morganii	Proteus mirabilis	Pseudomonas aeruginosa	Serratia marcescens	Enterococcus faecalis	Vancomycin Resistant Enterococcus faecalis**	Enterococcus faecium	Vancomycin Resistant Enterococcus faecium	Staphylococcus aureus	MRSA	Staphylococcus epidermidis	Streptococcus agalactiae	Streptococcus pneumoniae**	Streptococcus pyogenes**
Amikacin	37	67	47	158	2651	141	476	72	354	414	44	448	18	35	41	588	446	166	104	18	14
Amoxicillin-Clavulanate	92	100	100	100	100	99	100	99	100	96	100					100		39		100	
Ampicillin-Sulbactam	76	72				63	74	85	6	87		100				100		39		100	
Azithromycin		30			57				67			100	89	43							
Aztreonam		87	89	78	91	91	94	91	80	91	80										
Ceftazidime		3	99	98	91	92	95	92	97	94	85				100						
Cefepime		81	99	98	91	92	95	92	97	94	85										
Ceftazidime		78	87	83	74	91	95	92	74	94	89					100		29		89	100
Ceftazidime		70	79	74	71	90	92	91	71	93	66										76
Cefturoxime		81	94	96	90	80	99	93	74	58	77	79	17	29		84	27	47		89	100
Ciprofloxacin																84	27	47		89	100
Clindamycin																68	59	47	51	100	79
Daptomycin												100	100	100	100	100	100	100	100	100	100
Ertapenem												29				54	15	24	41	41	79
Erythromycin		100	100	98	92	88	97	97	88	96	83					96	96	90			
Gentamicin		81	94	99	94	80	99	95	82	61	77	83	61	86	90						
Linezolid																					
Mergopenam		92	100	100	99	100	100	99	100	100	100	99	89	97	100	100	100	100	100	100	100
Nitrofurantoin % nonresistant UTI												99	86	62	65	100	100	100	100	100	100
Oxacillin		96	18	19	98	92	48														
Penicillin												100	83	44		100		39		100	67
Penicillin-Tazobactam		100	87	86	98	96	97	93	99	88	77										
Rifampin												50	72	11							
Tetracyclines		78	81	93	85	77	96	84				29	11	57	22	100	99	98			
Trimethoprim - Sulfamethoxazole		92	97	100	93	90	99	96	99	96	89										
Vancomycin		84	88	99	87	75	96	91	74	62		100				100	100	100			

Blue highlighting indicates organisms that crossed above 80% susceptible compared to 2020; Red highlighting indicates organisms that crossed below 80% susceptible compared to 2020 data

# Antibiotic dosing based on normal renal function

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

Antimicrobials	Usual Dose per indication					
<b>Acyclovir IV</b>	HSV Suppression = 2.5 mg/kg q8h		HSV Treatment = 5 mg/kg q8h		Herpes Zoster or Encephalitis = 10 mg/kg q8h	
<b>Acyclovir PO</b>	HSV Suppression = 400 mg q12h		HSV Treatment = 400 mg three times daily		Herpes Zoster or Encephalitis = 800 mg five times daily	
<b>Amoxicillin PO</b>	Pneumonia = 1 gm q8h			Systemic Infection = 500 mg q8h		
<b>Amoxicillin/clavulanate PO</b>	875 mg q12h					
<b>Ampicillin IV</b>	Systemic Infection = 2 gm q6h			Bloodstream/Endocarditis/CNS Infection = 2 gm q4h		
<b>Ampicillin/sulbactam IV</b>	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.		
<b>Aztreonam IV*</b>	Systemic Infection = 2 gm q8h			CNS Infection = 2 gm q6h		
<b>Cefazolin IV</b>	Systemic Infection = 2 gm q8h			Cystitis (lower urinary tract infection) = 1 gm q8h		
<b>Cefdinir PO</b>	300 mg q12h					
<b>Cefepime IV*</b>	Systemic Infection = 2 gm q8h			Cystitis (lower urinary tract infection) = 1 gm q8h		
<b>Cefoxitin IV</b>	2 gm q6h					
<b>Ceftazidime IV*</b>	2 gm q8h					
<b>Ceftazidime/avibactam IV</b>	2.5 gm q8h					
<b>Ceftriaxone IV</b>	Systemic Infection = 2 gm daily			Cystitis (lower urinary tract infection) = 1 gm daily		
<b>Ceftolozane/tazobactam IV</b>	Pulmonary Infections/Sepsis = 3 gm q8h			Non-pulmonary Infections = 1.5 gm q8h		
<b>Cephalexin PO</b>	Systemic Infection = 500 mg q6h			Cystitis (lower urinary tract infection) = 500 mg q12h		
<b>Ciprofloxacin IV</b>	Systemic Infection = 400 mg q8h			Cystitis (lower urinary tract infection) = 400 mg q12h		
<b>Ciprofloxacin PO</b>	Systemic Infection = 750 mg q12h			Cystitis (lower urinary tract infection) = 500 mg q12h		
<b>Daptomycin IV</b>	Skin & Soft Tissue/ Urinary Tract Infection = 4 mg/kg q24h		Bacteremia/ Endocarditis = 6 mg/kg q24h		VRE Bacteremia/Endocarditis = 10 mg/kg q24h	
<b>Ertapenem IV</b>	1 gm q24h					
<b>Fluconazole IV/PO</b>	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	
<b>Ganciclovir IV</b>	CMV Induction = 5 mg/kg q12h			CMV Maintenance = 5 mg/kg q24h		
<b>Levofloxacin IV/PO</b>	Systemic Infection = 750 mg q24h					
<b>Meropenem IV*</b>	Systemic Infection = 500 mg q6h					
<b>Osetamivir PO</b>	Treatment = 75 mg q12h			Prophylaxis = 75 mg q24h		
<b>Penicillin G IV</b>	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		
<b>Piperacillin/tazobactam IV*</b>	3.375 gm q8h					
<b>Sulfamethoxazole-trimethoprim IV</b> (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		
<b>Sulfamethoxazole-trimethoprim PO</b>	Systemic Infection = 1-2 DS tablets q12h			Cystitis (lower urinary tract infection) = 1 DS tablet q12h		
<b>Valacyclovir PO</b>	1 <sup>st</sup> Episode HSV = 1 gm q12h	Recurrent HSV = 500 mg q12h	Recurrent HSV – immunocompromised = 1 gm q12h	HSV Suppression = 500 mg to 1000 mg q24h	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 B-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 tendinitis or tendon ruptures
- Elderly patients due to increased side effects and hepatotoxicity
- Certain uncomplicated infections (i.e. UTI due to increased E. Coli Resistance)

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