Antimicrobials Restrictions Policy

Restriction of the use of certain antimicrobial agents based on indication, spectrum of activity, potential for serious adverse effects, or associated toxicities can ensure appropriate use of therapy. By ensuring the appropriate use, the emergence of multi-resistant organisms may be minimized while achieving therapeutic goals and reducing healthcare costs.

See the policy for details on restriction criteria for the following:

- Aztreonam
- Aztreonam/avibactam
- Ceftaroline
- Ceftazidime/avibactam
- Cefiderocol
- Ceftolozane/tazobactam
- Colistimethate
- Dalbavancin
- Daptomycin
- Doxycycline
- Ertapenem
- Fidaxomicin
- Fluoroquinolones
- Fosfomycin
- Imipenem/cilastatin
- Isavuconazole
- Linezolid
- Meropenem
- Micafungin
- Minocycline IV
- Posaconazole
- Sulbactam/durlobactam
- Tigecycline
- Voriconazole

Pre-Op Antimicrobial Prophylaxis Recommendations***

SURGERY TYPE	FIRST CHOICE	ALTERNATIVE
Cardiac, Non-cardiac Thoracic, Vascular	Cefazolin* + Vancomycin 15mg/kg**	Vancomycin 15mg/kg
Neurosurgical	Cefazolin* + Vancomycin 15mg/kg**	Vancomycin 15mg/kg
Orthopedic	Cefazolin* + Vancomycin 15mg/kg**	Vancomycin 15mg/kg
Head and Neck	Cefazolin* + Metronidazole	Clindamycin
Gastroduodenal, Esophageal, Hernia Repair, PEG Placement	Cefazolin* + Vancomycin 15mg/kg**	Vancomycin 15mg/kg + Gentamicin
Colon and Abdominal/ General	Cefazolin* + Metronidazole **OR** Cefazolin*	Levofloxacin + Metronidazole
Gynecological	Cefazolin*	Vancomycin 15 mg/kg + Gentamicin
Urological	Cefazolin* **OR** Cefazolin* + Metronidazole **OR** Cefazolin* + Gentamicin	Levofloxacin **OR** Vancomycin 15mg/kg ± Gentamicin

* Recommended dose is 2 grams in adult patients (3 grams ≥ 120 kg)
** If known MRSA colonization
*** National guidelines support administering prophylactic antibiotics event if the patient is already receiving scheduled therapeutic antibiotics

Only add vancomycin if patient had recent hospitalization or has risk factors for MRSA infection

Risk Factors for MRSA Infection

HOSPITAL SETTING	COMMUNITY SETTING
Recent antibiotic exposure	History of skin trauma
Hemodialysis/Peritoneal Dialysis	Poor personal hygiene
Indwelling vascular catheter	Illicit IV drug use
Diabetes mellitus	Exposure to crowded environments (prisons, day care centers and military quarters)
Immune system dysfunction	
Recent surgical procedures	
Recent infection/colonization with MRSA	

Recommended Duration of Antibiotic Therapy

INFECTION	DURATION
Community Acquired Pneumonia	3 to 5 Days
Healthcare or Ventilator Associated Pneumonia	6 to 8 Days
Uncomplicated UTI	3 to 5 Days
Complicated UTI or Pyelonephritis	5 to 7 Days
Intra-abdominal Infection with Source Control	4 Days
Cellulitis	5 to 6 Days
Acute Bacterial Sinusitis	5 Days
COPD Exacerbation	≤ 5 Days
Neutropenic Fever	Afebrile x 72 hours

Verigene Resistance Markers

ORGANISMS	RESISTANCE GENE	INTERPRETATION
Staphylococcus aureus*	None	None
	MecA	Methicillin Resistance
S. epidermidis	None	None
	MecA	Methicillin Resistance
Enterococcus faecalis OR E. faecium	None	None
	Van A or Van B	Vancomycin Resistance
Escherichia coli, Klebsiella pneumoniae, Klebsiella oxytoca	None	None
	CTX-M	ESBL Producing Organism*
	KPC, NDM, OXA or VIM	CRE/MDR Organism*
Proteus sp.	None	None
	CTX-M	ESBL Producing Organism*
Pseudomonas aeruginosa	None	None
	IMP, KPC, NDM, OXA or VIM	CRPA/MDR Organism*
Acinetobacter sp.	None	None
	IMP or OXA	CRAB/MDR Organism*
Enterobacter sp.	None	None
	CTX-M	ESBL producing organism*
	KPC, NDM, IMP or VIM	CRE/MDR Organism*

ID Consult Strongly Recommended

Dignity Health.
St. Joseph's Medical Center

Antimicrobial Guideline

Approved by the Antimicrobial Stewardship Committee & Infection Control Committee

2026 Recommended Empiric Antimicrobial Therapy of Selected Infections in Adults Requiring Hospitalization

INFECTION	1ST LINE	ALTERNATIVE / ALLERGY
Community Acquired Pneumonia	Ceftriaxone + Azithromycin	Levofloxacin*
UTI, Uncomplicated	Nitrofurantoin**	Cephalexin
UTI, Complicated	Ceftriaxone	Ciprofloxacin*
Sepsis of Unknown Etiology	Cefepime ± Vancomycin	Levofloxacin* ± Vancomycin
Intra-Abdominal Sepsis	Ceftriaxone + Metronidazole	Ciprofloxacin* + Metronidazole
Suspected or confirmed C. difficile infection	Vancomycin PO	Fidaxomicin*
Bacterial Meningitis	Ceftriaxone + Vancomycin ± Ampicillin	Ceftriaxone + Vancomycin ± Bactrim
Health Care Associated Meningitis	Cefepime + Vancomycin ± Ampicillin	Meropenem* + Vancomycin
Pelvic Inflammatory Disease	Cefoxitin + Doxycyline	Clindamycin + Gentamicin
Cellulitis	Ceftriaxone ± Clindamycin	Vancomycin **OR** Clindamycin
Cellulitis, Complicated OR Diabetic Foot Ulcer	Piperacillin/ Tazobactam ± Vancomycin	Ceftazidime **OR** Ciprofloxacin* ± Vancomycin
Necrotizing Fascitis	Piperacillin/ Tazobactam ± Clindamycin	
Febrile Neutropenia (ANC < 500) based on source and MRSA risk	Cefepime ± Metronidazole ± Vancomycin	Aztreonam* ± Metronidazole ± Vancomycin

* Restrictions for use may apply
** Avoid use in geriatric patients and CrCl less than 30 mL/min

Ensuring patients receive the right antibiotic, at the right dose, at the right time, and for the right duration reduces mortality, risk of Clostridium difficile-associated diarrhea, hospital stays, overall antimicrobial resistance within the facility, and costs.

St. Joseph's Medical Center - Stockton

Antibiogram 01/01/2025 - 12/31/2025

		Penicillins						Cephalosporins					Carbapenems			Aminoglycosides			Fluoroquin-olones		Other									
Percent (%) susceptible	# Tested (n)	Amoxicillin	Ampicillin	Oxacillin	Penicillin	Piperacillin/Tazo	Amp/Sulbactam	Cefazolin	Cefepime	Cefotaxime	Ceftazidime	Ceftriaxone	Ertapenem	Imipenem	Meropenem	Amikacin	Gentamicin	Tobramycin	Ciprofloxacin	Levofloxacin	Clindamycin	Erythromycin	Linezolid	Rifampin	Sulfa/Trimeth	Daptomycin	Minocycline	Tetracycline	Vancomycin	Nitrofrurantoin*
Gram negative rods:																													
Acinetobacter baumannii complex	78						46		42		35	29			33	69	64	69	32	35					68					
Citrobacter freundii complex	94		0			81	0	0	90		72	70	99			100	90	88	83	85					84					92
Citrobacter koseri	68		0			91	90	87	97		94	94	100			100	100	100	96	99					96					59
Enterobacter cloacae complex	235		0			64	0	0	80		61	57	74			96	94	91	85	87					84					34
Escherichia coli	3600		42			95	53	63	75		73	73	99	98		100	85	83	55	66					66					97
Klebsiella aerogenes	69		0			77	0	0	97		75	72	99			100	100	99	98	100					99					32
Klebsiella oxytoca	152		0			85	46	39	84		83	81	96			99	88	86	86	95					84					88
Klebsiella pneumoniae	958		0			86	69	73	78		77	77	97			99	89	87	75	82					78					44
Morganella morganii	151		0			100	32	0	99		85	85	99			98	75	73	56	58					62					0
Proteus mirabilis	686		66			98	75	4	89		88	88	100			99	76	79	60	62					71					0
Providencia rettgeri	36		0			97	50	0	94		94	86	97			100	77	71	81	78					86					
Providencia stuartii	68		0			94	15	0	85		72	68	97			100			15	15					76					0
Pseudomonas aeruginosa	755					85			89		89			79	85	99		0	75	73										
Serratia marcescens	108		0			92	0	0	100		98	91	97			100	100	69	89	94										0
Stenotrophomonas maltophilia	79																			81					95		93			
Gram positive cocci:																													
Enterococcus faecalis	1165		100																	*68			99			100			93	100
Enterococcus faecium	259		16																	*14			97						46	100
Staphylococcus aureus	1063			53													90			60	64	43	100	99	94	100		75	100	100
Staphylococcus epidermidis	245			36													96		79	66	53	31	100	98	68			80	100	100
Staphylococcus lugdunensis	36			92													97			100			100	100				100	100	
Streptococcus agalactiae	40				100				100	100		100									51	39							100	
Streptococcus pneumoniae	53	96			96					98		100								100		77	100		81			71	100	

* Urinary Tract isolates only Non urine

>= 5% more resistant 2025 than 2024 >= 5% more sensitive 2025 than 2024

NOTES:

A. Some strains of *Escherichia coli, Klebsiella sp.,* and *Proteus mirabilis* can produce Extended Spectrum Beta Lactamases (ESBLs). These strains should be considered resistant to all penicillins (including piperacillin- tazobactam), cephalosporins, and monobactams. Treatment with a carbapenem is recommended.

B. Emerging resistance in Gram negative rods due to Carbapenemase and Metallo Beta Lactamase production is increasing world wide. These strains should be considered resistant to all penicillins, cephalosporins, carbapenems, and aztreonam. Resistance may also be demonstrated to the aminoglycosides and fluoroquinolones. Infectious Disease consult is recommended.

C. Clinical outcomes for aminoglycosides as monotherapy for systemic *Pseudomonas aeruginosa* infections are limited and have resulted in worse treatment outcomes (for infections outside of the urinary tract) compared with other therapies. Combination therapy for most indications other than urinary tract infections should be considered. Consultation with an infectious disease specialist is recommended.

D. Consider combination therapy for the treatment of *Stenotrophomonas maltophilia.* Consultation with an infectious disease specialist is recommended.

E. Some Enterobacterales (most commonly seen *with Citrobacter freundii complex*, *Enterobacter cloacae complex* and *Klebsiella aerogenes*) may develop resistance during therapy with 3rd-generation cephalosporins as a result of derepression of AmpC β-lactamase. Isolates initially susceptible may become resistant within a few days after initiation of therapy, so 3rd-generation cephalosporins are NOT recommended for these cases of bacteremia or invasive infection.

F. 47% of the *Staphlococcus aureus* isolates are MRSA (methicillin resistant). Susceptibility results for both hospital-acquired and community acquired MRSA isolates are combined on this antibiogram. Community acquired isolates tend to be susceptible to a greater number of antibiotics than hospital acquired MRSA strains, but they can be associated with more virulent infections.

G. 17% of *Haemophilus influenzae* are ß-lactamase positive.

H. Per SJMC Infection Control Dept. policy for Multi-Drug Resistant Organisms: In addition to appropriate antibiotic therapy, patients must be placed in CONTACT ISOLATION PRECAUTIONS.