

Palos Hospital 2022 Antibigrams

[I. Facility-Wide Antibigram](#)

[II. Urinary Antibigram](#)

[III. Emergency Department \(ED\) Antibigram](#)

Palos 2022 Facility-Wide Antibiogram

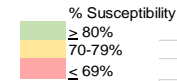


	Isolates	Amikacin	Ampicillin	Ampicillin/Sulbactam	Aztreonam	Cefepime	Ceftriaxone	Ciprofloxacin	Clindamycin	Daptomycin	Gentamicin	Linezolid	Meropenem ^{e,h}	Oxacillin	Piperacillin/Tazobactam	Rifampin	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
GRAM POSITIVES																				
Enterococcus faecalis	271		100 ^b							64 ^f		99								100
Enterococcus faecium	114		24 ^b							100 ^g		99								26
Vancomycin-Resistant Enterococci	75		21 ^b							100 ^g		100								
Staphylococcus coagulase negative	102							55	100	100		100		45 ⁱ		100	65	81 ^j		100
Staphylococcus aureus	572							56	100	100		100		49 ⁱ		100	83	77 ^j		100
Methicillin-resistant Staphylococcus aureus	287							43	99	100		100				100	69	63 ^j		100
GRAM NEGATIVES																				
Acinetobacter species	31	58		48				29			58		32		19		64			48
Citrobacter species	61	98			85	97	84	97			100		100		89		97			100
Citrobacter freundii complex	32	97			84	97	81	94			100		100		81		94			100
Enterobacter species	101	100			81	92	75	95			99		98		79		93			98
Escherichia coli	1404	97	52 ^c	62	91	87	86	70			91		100		95		77			91
Klebsiella species	519	99		65 ^d	84	87	83	83			95		98		85		87			93
Klebsiella aerogenes ^d	45	98			73	96	71	93			98		90		71		96			96
Klebsiella pneumoniae	377	98			77	86	85	84	84		95		99		87		85			92
Proteus species	264	96	73 ^c	84	91	92	91	71			89		99		89		80			91
Pseudomonas aeruginosa	319	100 ^a			73	91		86					87		86					94
Serratia species	40	100			100	100	90	90			98		100		100		98			85
MULTI-DRUG RESISTANT GRAM NEGATIVES																				
Extended-Spectrum β-Lactamase Enterobacterales (ESBL-E)	178	85						12			65		99				40			57

Antibiogram data helps guide clinicians to choose appropriate empiric antibiotics for many infectious syndromes.

[See protocol for multi-drug resistant gram-negative agents for guidance](#)

Page ADSP with questions: 55955



^a %S using MIC breakpoint for urine sources (≤ 16 mcg/ml). If amikacin is preferred for *P. aeruginosa*, recommend using in combination empirically for sources outside the urine.

^b Results of ampicillin susceptibility tests should be used to predict the activity of amoxicillin.

Ampicillin may be used to predict susceptibility to amoxicillin-clavulanate, ampicillin-sulbactam, and piperacillin-tazobactam among non-β-lactamase-producing enterococci in clinically stable/non-immunocompromised patients.

^c Results of ampicillin can predict results for amoxicillin.

^d Klebsiella (formerly Enterobacter) aerogenes is intrinsically resistant to ampicillin/sulbactam and ceftazidime. If final culture results in Klebsiella aerogenes, empiric therapy with ampicillin/sulbactam or ceftazidime should be changed to a susceptible definitive agent.

^e Required infectious diseases consultation or ICU status for ongoing use

^f %S based on dosage regimen of 6 mg/kg every 24 hours for daptomycin

^g %SDD based on a dosage regimen of 8-12 mg/kg every 24 hours for daptomycin intended for serious infections due to *E. faecium*. Consultation with an infectious diseases specialist recommended.

^h Should be reserved for patients who are intolerant to penicillins and cephalosporins or in patients who are suspected of having a drug-resistant bacteria.

ⁱ For agents with established clinical efficacy and considering site of infection and appropriate dosing, oxacillin-susceptible staphylococci can be considered susceptible to: 1) β-lactam combination agents (amoxicillin-clavulanate, ampicillin-sulbactam, piperacillin-tazobactam); 2) oral cephalosporins (cefaclor, cefdinir, cephalexin, cefpodoxime, cefprozil, cefuroxime); 3) IV cephalosporins (cefazolin, cefepime, ceftriaxone); and 4) carbapenems (ertapenem, imipenem, meropenem)

^j Organisms that are susceptible to tetracycline are also considered susceptible to doxycycline and minocycline. However, some organisms that are intermediate or resistant to tetracycline may be susceptible to doxycycline, minocycline, or both.

Abbreviations: %S, percent susceptible; SDD, susceptible-dose-dependent

30 isolate threshold

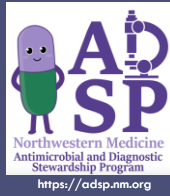
Blank boxes indicate organism has intrinsic resistance to corresponding antimicrobial or resistance testing is not applicable

When risk for mortality or significant morbidity is high (eg. meningitis, sepsis, ICU patients) agents with %S at least 90-95% should be selected.

Less significant concerns for mortality within the next 24 to 48 hours (eg. uncomplicated UTIs or community-acquired infections), %S of 80-85% may be appropriate.

Antibiogram Guidance (CLSI M100-Ed33)

Palos 2022 Urine Antibiogram



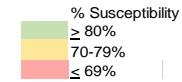
Isolates	Amikacin	Ampicillin	Ampicillin/Sulbactam	Aztreonam	Cefazolin	Cefepime	Ceftriaxone	Ciprofloxacin	Gentamicin	Linezolid	Meropenem ^{1,9}	Nitrofurantoin	Oxacillin	Piperacillin/Tazobactam	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
GRAM POSITIVES																		
Enterococcus faecalis	212	100 ^b								99		99						100
Enterococcus faecium	67	24 ^b								99		48						27
Vancomycin-Resistant Enterococci	50	26 ^b								100		44						
Staphylococcus coagulase negative	34									100			59 ^h		74	88 ⁱ		100
Staphylococcus aureus	62									100			40 ^h		75	67 ⁱ		100
Methicillin-resistant Staphylococcus aureus	36									100					61	47 ⁱ		100
GRAM NEGATIVES																		
Citrobacter species	37	97		86		100	84	97	100		100	89		86	97			100
Enterobacter species	49	100		71		88	65	78	98		100	39		69	92			96
Escherichia coli	1182	97	53 ^c	62	86	89 ^a	87	86	70	91		100	97	96	77			91
Klebsiella species	371	99		65 ^d	84	82 ^{d,e}	92	82	81	95		98	37	85	86			92
Proteus species	185	95	73 ^c	83	91	90 ^a	91	90	70	88		99		99	81			90
Pseudomonas aeruginosa	132	100 ^a			69		93		83		89			90				100
MULTI-DRUG RESISTANT GRAM NEGATIVES																		
Extended-Spectrum β-Lactamase Enterobacterales (ESBL-E)	143	85					13		62		100	67		79				55

Several agents have the potential to concentrate in the urine with an intermediate MIC. Contact ADSP for appropriate indication and recommended dosing.

Antibiogram data helps guide clinicians to choose appropriate empiric antibiotics for many infectious syndromes.

[See protocol for multi-drug resistant gram-negative agents for guidance](#)

Page ADSP with questions: 55955



^a %S using MIC breakpoint for urine sources (≤ 16 mcg/ml). If amikacin is preferred for *P. aeruginosa*, recommend using in combination empirically for sources outside the urine.

^b Results of ampicillin susceptibility tests should be used to predict the activity of amoxicillin.

Ampicillin may be used to predict susceptibility to amoxicillin-clavulanate, ampicillin-sulbactam, and piperacillin-tazobactam among non-β-lactamase-producing enterococci in clinically stable/non-immunocompromised patients.

^c Results of ampicillin can predict results for amoxicillin.

^d Klebsiella (formerly Enterobacter) aerogenes is intrinsically resistant to ampicillin/sulbactam and cefazolin. If final culture results in Klebsiella aerogenes, empiric therapy with ampicillin/sulbactam or cefazolin should be changed to a susceptible definitive agent.

^e Susceptibility data obtained from Vitek

^f Required infectious diseases consultation or ICU status for ongoing use

^g Should be reserved for patients who are intolerant to penicillins and cephalosporins or in patients who are suspected of having a drug-resistant bacteria.

^h For agents with established clinical efficacy and considering site of infection and appropriate dosing, oxacillin-susceptible staphylococci can be considered susceptible to: 1) β-lactam combination agents (amoxicillin-clavulanate, ampicillin-sulbactam, piperacillin-tazobactam); 2) oral cephalosporins (cefaclor, cefdinir, cephalexin, cefpodoxime, cefprozil, cefuroxime); 3) IV cephalosporins (cefazolin, cefepime, ceftriaxone); and 4) carbapenems (ertapenem, imipenem, meropenem)

ⁱ Organisms that are susceptible to tetracycline are also considered susceptible to doxycycline and minocycline. However, some organisms that are intermediate or resistant to tetracycline may be susceptible to doxycycline, minocycline, or both.

Abbreviations: %S, percent susceptible; SDD, susceptible-dose-dependent

30 isolate threshold

Blank boxes indicate organism has intrinsic resistance to corresponding antimicrobial or resistance testing is not applicable

When risk for mortality or significant morbidity is high (eg. meningitis, sepsis, ICU patients) agents with %S at least 90-95% should be selected.

Less significant concerns for mortality within the next 24 to 48 hours (eg. uncomplicated UTIs or community-acquired infections), %S of 80-85% may be appropriate.

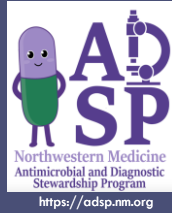
Antibiogram Guidance (CLSI M100-Ed33)

When risk for mortality or significant morbidity is high (eg. meningitis, sepsis, ICU patients) agents with %S at least 90-95% should be selected.

Less significant concerns for mortality within the next 24 to 48 hours (eg. uncomplicated UTIs or community-acquired infections), %S of 80-85% may be appropriate.

Antibiogram Guidance (CLSI M100-Ed33)

Palos 2022 ED Antibiogram



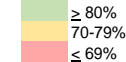
Isolates	Amikacin	Ampicillin	Ampicillin/Sulbactam	Aztreonam	Cefepime	Ceftriaxone	Ciprofloxacin	Clindamycin	Daptomycin	Gentamicin	Linezolid	Meropenem ^{e,h}	Oxacillin	Piperacillin/Tazobactam	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
GRAM POSITIVES																		
Enterococcus faecalis	178	100 ^b					72		58 ^f		99							100
Enterococcus faecium	44	32 ^b							100 ^g		100							25
Vancomycin-Resistant Enterococci	32	34 ^b							100 ^g		100							
Staphylococcus coagulase negative	51							63	100		100		47 ⁱ		65	86 ^j		100
Staphylococcus aureus	228							57	99		100		53 ⁱ		85	78 ⁱ		100
Methicillin-resistant Staphylococcus aureus	120							48	99		100				74	69 ⁱ		100
GRAM NEGATIVES																		
Citrobacter species	32	97		90	100	88	100			100	100			94	97			100
Enterobacter species	52	100		85	96	77	96			100	100			85	94			98
Escherichia coli	1037	97	53 ^c	63	87	88	86	70		92	100			95	77			91
Klebsiella species	334	99		69 ^d	84	88	85	83		95	98			86	87			93
Proteus species	176	95	73 ^c	82	91	92	92	70		88	100			100	81			90
Pseudomonas aeruginosa	134	100 ^a			73	93		84			89			89				98

Antibiogram data helps guide clinicians to choose appropriate empiric antibiotics for many infectious syndromes.

[See protocol for multi-drug resistant gram-negative agents for guidance](#)

Page ADSP with questions: 55955

% Susceptibility



^a %S using MIC breakpoint for urine sources (≤ 16 mcg/ml). If amikacin is preferred for *P. aeruginosa*, recommend using in combination empirically for sources outside the urine.

^b Results of ampicillin susceptibility tests should be used to predict the activity of amoxicillin.

Ampicillin may be used to predict susceptibility to amoxicillin-clavulanate, ampicillin-sulbactam, and piperacillin-tazobactam among non- β -lactamase-producing enterococci in clinically stable/non-immunocompromised patients.

^c Results of ampicillin can predict results for amoxicillin.

^d Klebsiella (formerly Enterobacter) aerogenes is intrinsically resistant to ampicillin/sulbactam and ceftazidime. If final culture results in Klebsiella aerogenes, empiric therapy with ampicillin/sulbactam or ceftazidime should be changed to a susceptible definitive agent.

^e Required infectious diseases consultation or ICU status for ongoing use

^f %S based on dosage regimen of 6 mg/kg every 24 hours for daptomycin

^g %SDD based on a dosage regimen of 8-12 mg/kg every 24 hours for daptomycin intended for serious infections due to *E. faecium*. Consultation with an infectious diseases specialist recommended.

^h Should be reserved for patients who are intolerant to penicillins and cephalosporins or in patients who are suspected of having a drug-resistant bacteria.

ⁱ For agents with established clinical efficacy and considering site of infection and appropriate dosing, oxacillin-susceptible staphylococci can be considered susceptible to: 1) β -lactam combination agents (amoxicillin-clavulanate, ampicillin-sulbactam, piperacillin-tazobactam); 2) oral cephalosporins (cefaclor, cefdinir, cephalexin, cefpodoxime, cefprozil, cefuroxime); 3) IV cephalosporins (cefazolin, cefepime, ceftriaxone); and 4) carbapenems (ertapenem, imipenem, meropenem)

^j Organisms that are susceptible to tetracycline are also considered susceptible to doxycycline and minocycline. However, some organisms that are intermediate or resistant to tetracycline may be susceptible to doxycycline, minocycline, or both.

Abbreviations: %S, percent susceptible; SDD, susceptible-dose-dependent

30 isolate threshold

Blank boxes indicate organism has intrinsic resistance to corresponding antimicrobial or resistance testing is not applicable

When risk for mortality or significant morbidity is high (eg. meningitis, sepsis, ICU patients) agents with %S at least 90-95% should be selected.

Less significant concerns for mortality within the next 24 to 48 hours (eg. uncomplicated UTIs or community-acquired infections), %S of 80-85% may be appropriate.

Antibiogram Guidance (CLSI M100-Ed33)