

PACIFIC DIAGNOSTIC LABORATORIES
PDC (Outreach Lab Only)
Antimicrobial Susceptibility Profile January – December 2022
Percent Susceptible¹

ORGANISM ¹ <i>(*low number of isolates tested (<30) reduces the statistical power.)</i>	SAMPLE SIZE	AMPICILLIN	AMP / SUL	NAFCIL / OXACIL (2)	PIP / TAZO	DOXYCYCLINE	CEFZOLIN (2)	CEFTRAXONE	CEFTAZIDIME	CEFEPIME	CIPROFLOXACIN	LEVOFLOXACIN	GENTAMICIN	IMIPENEM	ERTAPENEM	TRIMETH / SULFA	NITROFURAN (3)	CLINDAMYCIN	ERYTHROMYCIN	VANCOMYCIN	LINEZOLID	RIFAMPIN (4)	MEROPENEM*
<i>Escherichia coli</i> (all)	10743	60	67		97		89	92	92	99	82	80	92	100	100	77	97						99
<i>Escherichia coli</i> ESBL ⁷ (all)	816	0	0		90		0	0	0	86	28	24	72	100	100	56	94						94
<i>Escherichia coli</i> (Urines)	9663	60	67		97		90	92	92	99	82	80	92	100	100	77	97						
<i>Escherichia coli</i> ESBL ⁷ (Urines)	779	0	0		90		0	0	0	86	28	24	72	100	100	56	94						
<i>Klebsiella pneumoniae</i>	1576		85		95		90	94	94	100	94	92	97	99	100	91	25						95
<i>Klebsiella oxytoca</i>	298		65		94		41	95	95	99	96	96	96	99	100	93	83						100
<i>Klebsiella aerogenes</i> (formerly known as <i>Enterobacter aerogenes</i>)	286		0		86					99	98	95	100	67	99	99	11						100
<i>Klebsiella sp.</i> ESBL ⁷	106		0		62		0	0	0	91	38	43	60	98	98	29	18						100
<i>Pseudomonas aeruginosa</i>	966				87				92	90	87	83	92	93									90
<i>Stenotrophomonas maltophilia</i>	80											76				91	0						
<i>Enterobacter cloacae</i> complex	358				79					97	94	93	98	94	97	89	35						92
<i>Proteus mirabilis</i>	831	80	90		99		91	97	98	99	91	91	94	12	100	84	0						100
<i>Citrobacter freundii</i> complex	193				84			82	82	100	93	92	94	96	99	85	91						100
<i>Citrobacter koseri</i> (<i>diversus</i>)	272				97		50	99	99	100	99	99	100	100	100	100	86						100
<i>Serratia marcescens</i>	137				95			94	98	99	94	91	100	81	98	99	0						91

<i>Staphylococcus aureus</i>	3462			72		98	(2)				71 ⁶	72 ⁶	98			93	97	81	57	100	100	100	
<i>Staphylococcus aureus</i> (MSSA)	2484			100		99	(2)				90 ⁶	91 ⁶	98			95	97	80	71	100	100	100	
<i>Staphylococcus aureus</i> (MRSA)	978			0		97	(2)				23 ⁶	24 ⁶	96			88	98	83	22	100	99	98	
Coagulase Negative (CN) Staph.(all)	264			57		90	(2)				79 ⁶	80 ⁶	92			80	96	73	47	99	100	99	
CN Staph. (Staph Epidermidis)	152			46		98	(2)				70 ⁶	71 ⁶	88			68	96	68	37	98	100	98	
<i>Enterococcus spp.</i> (all)	1404	99									91 ⁵	92 ⁵					96			99	100		
<i>Enterococcus faecalis</i> (all)	1358	100									92 ⁵	93 ⁵					98			99	100		
<i>Enterococcus faecalis</i> (VRE)	11*	100															100			0	100		
<i>Enterococcus faecium</i> (all)	46	73									57 ⁵	63 ⁵								91	100		
<i>Enterococcus faecium</i> (VRE)	4*	0															50			0	100		
<i>Streptococcus pneumoniae</i> ⁸	80			100				95				100				44		93	67	100			

≥-5% difference compared to 2021	≥-10% difference compared to 2021	≥+5% difference compared to 2021
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Footnotes:

1. Profiles include data from disk diffusion, automated testing, and gradient diffusion MIC. Intermediate results have been interpreted as resistant to this tabulation. All isolates were not tested against each antibiotic in the profile.
2. Refer to oxacillin results. Oxacillin susceptible staphylococci can be considered susceptible to:
 - β lactam combination agents (e.g., piperacillin/tazobactam)
 - Oral cepheems (e.g., cefdinir, cephalexin, cefpodoxime, cefuroxime)
 - Parenteral cepheems, including cephalosporins I, II, III, and IV (e.g., cefazolin, Cefepime, cefotaxime, cefotetan, ceftriaxone, cefuroxime, ceftaroline)
 - Carbapenems (e.g., Ertapenem, Imipenem, Meropenem)Oxacillin-resistant strains may not respond to beta-lactam antibiotics such as penicillins, cephalosporins, and carbapenems. (CLSI M100, 32nded, 2022)
3. Data apply only to organisms isolated from the urinary tract.
4. Rifampin should not be used as a sole agent for antimicrobial therapy.
5. Fluoroquinolones are generally not an appropriate therapy against enterococcus infections from sites other than urine.
6. Staphylococcus isolates may develop resistance during prolonged therapy with quinolones. Therefore, isolates that are initially susceptible may become resistant within 3 to 4 days after initiation of therapy. (CLSI M100, 32nd ed, 2022)
7. PDL ESBL rate

	2019	2020	2021	2022
<i>E. coli</i>	6.6%	7.1%	6.8%	7.6%
<i>Klebsiella</i> sp.	6.1%	6.8%	4.7%	5.7%

8. In 2022, 45 *Streptococcus pneumoniae* samples were tested with Penicillin G. susceptibility rate is 100%
9. Fosfomycin susceptibility test is only available for *E. coli* and *Enterococcus faecalis* from urine sources. (CLSI M100, 32nd ed, 2022). The fosfomycin/*E.coli* susceptibility rate is below

	Tested Sample Size	Susceptibility Rate
<i>E. coli (all)</i>	236	98
<i>E. coli ESBL</i>	37	92

**PACIFIC DIAGNOSTIC LABORATORIES
SANTA BARBARA, CA**

**ANTIBIOTIC SUSCEPTIBILITY PROFILES
2022**

PDL Out Patients only

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