

PACIFIC DIAGNOSTIC LABORATORIES
PDC (Outreach Lab Only)
Antimicrobial Susceptibility Profile June 2022 – June 2023
Percent Susceptible¹

ORGANISM ¹ <i>(*low number of isolates tested (<30) reduce the statistical power.)</i>	SAMPLE SIZE	AMPICILLIN	AMP / SUL	NAFCIL / OXACIL (2)	PIP / TAZO	DOXYCYCLINE	CEFZOLIN (2)	CEFTRAXONE	CEFTAZIDIME	CEFEPIME	CIPROFLOXACIN	LEVOFLOXACIN	GENTAMICIN	IMPENEM	ERTAPENEM	TRIMETH / SULFA	NITROFURAN (3)	CLINDAMYCIN	ERYTHROMYCIN	VANCOMYCIN	LINEZOLID	RIFAMPIN (4)	MEROPENEM*	
<i>Escherichia coli</i> (all)	12235	58	66		96		87	91	91	100	80	75	91	100	100	76	97							99
<i>Escherichia coli</i> ESBL ⁷ (all)	987	(7)	(7)		(7)		(7)	(7)	(7)	(7)	22	15	72	100	100	54	94							96
<i>Escherichia coli</i> (Urines)	10986	58	66		96		90	91	91	100	80	75	91	100	100	76	97							
<i>Escherichia coli</i> ESBL ⁷ (Urines)	941	(7)	(7)		(7)		(7)	(7)	(7)	(7)	22	15	72	100	100	54	94							
<i>Klebsiella pneumoniae</i>	1845		84		93		86	93	93	100	91	89	97	99	100	91	26							95
<i>Klebsiella oxytoca</i>	344		65		93			94	94	100	94	95	97	100	100	93	85							100
<i>Klebsiella aerogenes</i> (formerly known as <i>Enterobacter aerogenes</i>)	285		0		84					99	98	95	99	63	98	98	13							100
<i>Klebsiella sp.</i> ESBL ⁷	136	(7)	(7)		(7)		(7)	(7)	(7)	(7)	26	26	63	98	98	27	24							90
<i>Pseudomonas aeruginosa</i>	1075				87				91	90	85	81	94	93										91
<i>Stenotrophomonas maltophilia</i>	83											87				90								
<i>Enterobacter cloacae</i> complex	407				81					97	94	92	98	95	97	93	41							89
<i>Proteus mirabilis</i>	947	83	90		99		88	97	97	99	89	89	95	10	100	84	0							100
<i>Citrobacter freundii</i> complex	222				82			81	82	100	92	90	95	96	99	85	90							100
<i>Citrobacter koseri</i> (<i>diversus</i>)	319				96			100	100	100	99	99	100	100	100	99	88							100
<i>Serratia marcescens</i>	139				94			92	100	100	92	90	100	76	98	99								88
<i>Staphylococcus aureus</i>	3856			72		99	(2)				72 ⁶	73 ⁶	98			93	99	81	58	100	100	100		
<i>Staphylococcus aureus</i> (MSSA)	2789			100		99	(2)				90 ⁶	91 ⁶	98			95	99	81	72	100	100	100		
<i>Staphylococcus aureus</i> (MRSA)	1067			0		97	(2)				24 ⁶	25 ⁶	96			87	98	81	21	100	100	98		
<i>Coagulase Negative (CN) Staph.</i> (all)	327			57		91	(2)				79 ⁶	80 ⁶	93			82	97	77	52	100	100	100		
Staph Epidermidis (CN Staph.)	199			48		86	(2)				72 ⁶	73 ⁶	91			74	98	74	44	99	100	99		
<i>Enterococcus spp.</i> (all)	1720	98									90 ⁵	92 ⁵					97			99	100			
<i>Enterococcus faecalis</i> (all)	1661	100									92 ⁵	94 ⁵					99			99	100			
<i>Enterococcus faecalis</i> (VRE)	10*	100															100			0	100			
<i>Enterococcus faecium</i> (all)	59	59									46 ⁵	51 ⁵					23			83	100			
<i>Enterococcus faecium</i> (VRE)	10*	0															100			0	100			
<i>Streptococcus pneumoniae</i> ⁸	85			100				95				100				64	0	94	73	100				
≥-5% difference compared to 2022	≥-10% difference compared to 2022		≥+5% difference compared to 2022																					

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, 33rdED, 2023)
3. Data apply only to organisms isolated from the urinary tract.
4. Rifampin should not be used as a sole agent for antimicrobial therapy. (CLSI M100, 33rdED, 2023)
5. Fluoroquinolones are generally not an appropriate therapy against enterococcus infections from sites other than urine. (CLSI M100, 33rdED, 2023)
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, 33rdED, 2023)
7. PDL ESBL rate

	2020	2021	2022	2023
<i>E. coli</i>	7.1%	6.8%	7.6%	8.1%
<i>Klebsiella sp.</i>	6.8%	4.7%	5.7%	5.8%

ESBLs are enzymes that inactivate most penicillins, cephalosporins, and aztreonam. (IDSA guideline 2023)

8. In 2023, 46 *Streptococcus pneumoniae* samples were tested with Penicillin G. susceptibility rate is 97%
9. Fosfomycin susceptibility test is only available for *E. coli* and *Enterococcus faecalis* from urine sources. (CLSI M100, 33rdED, 2023). The fosfomycin/*E. coli* susceptibility rate is below

	Tested Sample Size	Susceptibility Rate
<i>E. coli (all)</i>	178	99%
<i>E. coli ESBL</i>	49	98%

**PACIFIC DIAGNOSTIC LABORATORIES
SANTA BARBARA, CA
ANTIBIOTIC SUSCEPTIBILITY PROFILES
2023**

PDL Out Patients only

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