PACIFIC DIAGNOSTIC LABORATORIES

PDC (Outreach Lab Only)

Antimicrobial Susceptibility Profile January – December 2020

Percent Susceptible¹

| | AVG. SAMPLE SIZE | AMPICILLIN | AMP / SUL | NAFCIL / OXACIL | PIP / TAZO | TETRACYCLINE | CEFAZOLIN | CEFTRIAXONE | CEFTAZIDIME | CEFEPIME | CIPROFLOXACIN | LEVOFLOXACIN | GENTAMICIN | IMIPENEM | ERTAPENEM | TRIMETH / SULFA | NITROFURAN (3) | CLINDAMYCIN | ERYTHROMYCIN | VANCOMYCIN | LINEZOLID | RIFAMPIN (4) | MEROPENEM |
|---|---------------------|------------|-----------|-----------------|------------|--------------|-----------|-------------|-------------|----------|---------------|-----------------|------------|----------|-----------|-----------------|----------------|-------------|--------------|------------|-----------|--------------|-----------|
| ORGANISM¹ | | | | _ | | | | | | | | | | 400 | | | | | | | | | |
| Escherichia coli (all) | 8989 | 59 | 65 | | 97 | | 88 | 92 | 92 | 99 | 84 | 84 | 91 | 100 | 100 | 77 | 96 | | | | | | 100 |
| Escherichia coli ESBL ⁷ (all) | 640 | 0 | 0 | | 87 | | 0 | 0 | 0 | 82 | 27 | 27 | 60 | 100 | 100 | 52 | 89 | | | | | | 100 |
| Escherichia coli (Urines) | 8690 | 60 | 66 | | 97 | | 88 | 92 | 92 | 99 | 84 | 84 | 91 | 100 | 100 | 78 | 97 | | | | | | |
| Escherichia coli ESBL ⁷ (Urines) | 603 | 0 | 0 | | 88 | | 0 | 0 | 0 | 82 | 27 | 28 | 60 | 100 | 100 | 52 | 89 | | | | | | |
| Klebsiella pneumoniae | 1339 | | 84 | | 96 | | 91 | 93 | 93 | 99 | 95 | 97 | 96 | 99 | 100 | 90 | 26 | | | | | | 98 |
| Klebsiella oxytoca | 225 | | 66 | | 96 | | 68 | 93 | 94 | 100 | 98 | 98 | 96 | 100 | 100 | 90 | 73 | | | | | | 100 |
| Klebsiella aerogenes (formerly known as Enterobacter aerogenes) | 224 | | 0 | | 89 | | | 91 | 91 | 99 | 100 | 100 | 99 | 61 | 99 | 98 | 10 | | | | | | 75 |
| Klebsiella sp. ESBL ⁷ | 107 | | 0 | | 71 | | 0 | 0 | 0 | 90 | 53 | 73 | 59 | 98 | 99 | 23 | 18 | | | | | | |
| Pseudomonas aeruginosa | 973 | | | | 91 | | | | 95 | | 90 | 85 | 95 | 94 | | | | | | | | | 84 |
| Stenotrophomonas maltophilia | 58 | | | | | | | | | | | 89 | | | | 93 | | | | | | | |
| Enterobacter cloacae complex | 292 | | | | 83 | | | 78 | 81 | 97 | 98 | 98 | 97 | 93 | 97 | 93 | 29 | | | | | | 100 |
| Proteus mirabilis | 713 | 75 | 88 | | 100 | | 92 | 96 | 96 | 100 | 90 | 92 | 93 | 10 | 100 | 82 | | | | | | | 100 |
| Citrobacter freundii complex | 160 | | | | | | | 75 | 77 | 99 | 93 | 92 | 96 | 98 | 100 | 83 | 94 | | | | | | 100 |
| Citrobacter koseri (diversus) | 218 | | | | 99 | | 98 | 99 | 99 | 100 | 99 | 99 | 100 | 99 | 100 | 98 | 74 | | | | | | 100 |
| Serratia marcescens | 128 | | | | 96 | | | 97 | 99 | 100 | 97 | 96 | 100 | 77 | 100 | 100 | | | | | | | 100 |
| Haemophilus influenza | 3 | 66 | | | | | | 100 | | | | | | | | | | | | | | | 100 |
| Staphylococcus aureus | 3324 | | | 72 | | 91 | (2) | | | | 68 | 70 | 97 | | | 96 | 99 | 81 | 56 | 100 | 100 | 99 | |
| Staphylococcus aureus (MSSA) | 2316 | | | 100 | | 93 | (2) | | | | 88 | 89 | 98 | | | 97 | 99 | 83 | 72 | 100 | 100 | 100 | |
| Staphylococcus aureus (MRSA) | 908 | | | 0 | | 84 | (2) | | | | 20 | 20 | 94 | | | 92 | 99 | 76 | 16 | 99 | 100 | 98 | |
| Coagulase Negative Staph. | 201 | | | 52 | | 81 | (2) | | | | 71 | 72 ⁶ | | | | 80 | 100 | 75 | 47 | 100 | 100 | | |
| Enterococcus spp. | 1404 | 99 | | | | | | | | | 90 | 91 ⁵ | | | | | 96 | | | 98 | 100 | | |
| Enterococcus faecalis | 1350 | 100 | | | | | | | | | 91 | 93 ⁵ | | | | | 99 | | | 99 | 99 | | |
| Enterococcus faecalis (VRE) | 6 | 100 | | | | | | | | | 20 | 16⁵ | | | | | 100 | | | 0 | 100 | | |
| Enterococcus faecium | 49 | 67 | | | | | | | | | 49 | 48 ⁵ | | | | | 15 | | | 82 | 100 | | |
| Enterococcus faecium (VRE) | 9 | 11 | | | | | | | | | 0 | 0 | | | | | 0 | | | 0 | 100 | | |
| Streptococcus pneumoniae | 59 | | | 100 | | | | 95 | | | | 100 | | | | 50 | | 100 | 62 | 100 | | | |

Footnotes:

- Profiles include data from disk diffusion, automated testing and gradient diffusion MIC. Intermediate results have been interpreted as resistant for 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. piperacillintazobactam)
 - Oral cephems (e.g. cefdinir, cephalexin, cefpodoxime, cefuroxime)
 - Parenteral cephems 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, 30th ed, 2020)

- 3. Data apply only to organisms isolated from urinary tract.
- 4. Rifampin should not be used as a sole agent for antimicrobial therapy.
- Fluoroquinolones are generally not an appropriate therapy against enterococcus infections from sites other than urine.
- Staphylococcus isolates may develop resistance during prolonged therapy with quinolones. Therefore, isolates that are initially susceptible may become resistant within 3-4 days after initiation of therapy. (CLSI M100, 30th ed, 2020)

7. ESBL rate

| | 2018 | 2019 | 2020 |
|----------------|------|------|------|
| E. coli | 6.0% | 6.6% | 7.1% |
| Klebsiella sp. | 4.9% | 6.1% | 6.8% |

PACIFIC DIAGNOSTIC LABORATORIES SANTA BARBARA, CA

ANTIBIOTIC SUSCEPTIBILITY PROFILES 2020

PDL Out Patients only

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