

Antibiotic Commonsense

"An investment in knowledge always pays the best interest." Benjamin Franklin



Volume 6, Issue 4

November 2012



Editor: Lois Lux (llux@tpchd.org)

2011 Antimicrobial Susceptibility Summary Pierce County, Washington

All civilian and military hospital laboratories within Pierce County reported antibiotic susceptibility testing results to the Tacoma-Pierce County Health Department for the time period between Jan. 1 and Dec. 31, 2011. Inpatient and outpatient data have been included. Data represents only bacterial isolates collected for diagnostic purposes; no surveillance cultures are included.

Starting in 2008, all isolates were reported as long as there were ≥ 3 days separating isolates. Previous to 2008, hospitals had not agreed on a standard mechanism for eliminating duplicate isolates, which may have negatively impacted the reliability of percent susceptible data.

A county-wide antibiogram may be useful in providing context to individual hospital susceptibility trends. This would be especially important when individual facilities report small numbers of certain pathogens making the percent susceptible/resistant appear artificially inflated because of the small denominators (e.g., *S. pneumoniae*).

Percent (%) Susceptible

Gram Negative Organisms [†]	No. Tested [†]	Amikacin	Ampicillin	Pip/Taz	Cefazolin	Ceftriaxone	Ceftazidime	Imipenem	Gentamicin	Tobramycin	Nitrofurantoin	Ciprofloxacin	Levofloxacin	Trimeth/sulfa
<i>Citrobacter freundii</i>	400	100	x	↑↑ 93	x	87	85	98	93	97	86	↑↑ 93	90	↑↑ 84
<i>Enterobacte aerogenes</i>	457	100	x	↓↓ 78	x	↓ 84	↓ 83	99	100	100	↑↑↑ 15	98	97	98
<i>Enterobacter cloacae</i>	785	100	x	83	x	79	↑ 77	100	98	95	↑↑↑ 30	↑ 90	88	↑ 86
<i>Escherichia coli</i>	22,737	100	↓ 57	95	91	96	95	100	93	93	95	82	80	78
<i>Klebsiella pneumoniae</i>	3,348	99	x	↓ 92	↓↓↓ 62	95	93	100	91	91	↑↑↑ 34	↑ 82	81	83
<i>Proteus mirabilis</i>	1,741	100	66	99	90	96	94	100	86	87	x	↑↑ 67	65	60
<i>Serratia marcescens</i>	336	100	x	96	x	98	98	99	97	92	x	↑ 93	92	96
<i>Acinetobacter baumannii</i>	264		x	↑ 61	x	x	↑ 51	↑↑ 78	↑↑ 85	87	x	↑↑↑ 59	↑↑↑ 52	↑↑↑ 74
<i>Pseudomonas aeruginosa</i>	2,431	95		89			87	85	80	92		69	↓ 56	x
<i>Haemophilus influenzae</i> ^{††}	168		↓ 57			100								

[†] The actual number of isolates tested against each agent may vary. Blank indicates not tested against that drug.

^{††} Includes susceptibility data from MAMC and Franciscan Health Systems only.

x Susceptibility is 30% or less.

Susceptibility change from 2010	
	Decrease
5-9%	↓
10-14%	↓↓
15-25%	↓↓↓
26+%	↓↓↓↓
	Increase
	↑
	↑↑
	↑↑↑
	↑↑↑↑

2011 Antimicrobial Susceptibility Summary

Pierce County, Washington

Percent (%) Susceptible

Gram Positive Organism†	No. Tested†	Penicillin	Oxacillin	Clindamycin	Erythromycin	Gentamicin	Nitrofurantoin	Levofloxacin	Tetracycline	Rifampin	Trimeth/sulfa	Vancomycin
<i>Enterococcus species</i>	2,300	↑↑ 94					↑↑ 98	↑↑↑↑ 88				92
<i>Staphylococcus aureus</i> ††	11,873	×	↑ 55	82	44	98	99	59	95		98	100
<i>Staphylococcus coagulase neg.</i>	1,210	↓↓ ×	41	60	↑ 40	89	99	52	83		↓↓ 60	100

† The actual number of isolates tested against each agent may vary. Blank indicates not tested against that drug.

†† Staph aureus isolates not sensitive to oxacillin are considered resistant to other beta-lactams, including cephalosporins.

× Susceptibility is 30% or less.

Susceptibility change from 2010		
	Decrease	Increase
5-9%	↓	↑
10-14%	↓↓	↑↑
15-25%	↓↓↓	↑↑↑
26+%	↓↓↓↓	↑↑↑↑

Streptococcus pneumoniae

Invasive isolates (blood, CSF)	No. Tested†	% Susceptible	% Intermediate	% Resistant
Penicillin	94	85.11% [↑]	11.70%	3.19%
3rd gen Cephalosporin	64	98.44%	1.56%	0.00%
Macrolide††	79	81.01%	0.00%	18.99%
Levofloxacin	93	100.00%	0.00%	0.00%
Trimeth-Sulfa	62	90.32% [↑]	1.61%	8.06% [↑]
Vancomycin	64	100.00%	0.00%	0.00%

††Macrolides include erythromycin and azithromycin

Susceptibility change from 2010		
	Decrease	Increase
5-9%	↓	↑
10-14%	↓↓	↑↑
15-25%	↓↓↓	↑↑↑
26+%	↓↓↓↓	↑↑↑↑