Gram-positive Streptococci and Enterococci % Susceptible	No. Tested	Ampicillin	Amoxicillin	Penicillin IV	Ceftriaxone	Meropenem	Clindamycin	Erythromycin[4]	Levofloxacin	Ciprofloxacin	Linezolid	Nitrofurantoin	Tetracycline	Trimeth-Sulfa	Vancomycin
Streptococci															
Grp. B Streptococcus agalactiae	276	100	SP	100	100	-	41	40	98	-	100	-	16	-	100
Grp. A Streptococcus pyogenes	80	100	SP	100	100	-	91	91	98	-	100	-	79	-	100
Grp. G Streptococci	61	100	SP	100	100	-	85	85	100	-	100	-	66	-	100
S. pneumoniae (Non-meningeal)	58	SP[1]	SP[1]	98	97	86	-	66	96	-	SP	-	59	91	SP
S. pneumoniae (Meningeal)	58	-	-	74	88	86	-	-	-	-	SP	-	-	-	SP
S. anginosus	83	100	SP[2]	99	99	-	81	68	99	-	100	-	43	-	100
S. constellatus	44	98	SP[2]	95	95	-	73	73	100	-	100	-	68	-	100
Enterococci															
Enterococcus faecalis	932	100	SP[2]	100	R	-	R	R	90[u]	88[u]	98	100[u]	30[u]	R	100
Enterococcus faecium	91	24	-	23	R	-	R	R	21[u]	16[u]	95	20[u]	27[u]	R	53

Gram-positive Staphylococci % Susceptible	No. Tested	Penicillin	Oxacillin[5]	Ceftaroline	Vancomycin	Erythromycin	Clindamycin	Gentamicin[3]	Trimeth-Sulfa	Linezolid	Daptomycin	Nitrofurantoin	Rifampin[3]	Tetracycline
Staphylococcus aureus	1693	0	74	100	100	62	78	99	95	100	100	100[u	100	90
Staphylococcus lugdunensis	182	3	91	-	100	85	85	100	100	100	100	100[u]	100	95
Staphylococcus epidermidis	206	-	36	-	100	33	67	94	56	100	100	100[u]	99	76
Staphylococcus intermedius	57	-	91	-	100	81	86	84	86	100	100	100[u]	100	58

Notes

[1] Based on susceptibility to standard dose IV penicillin, susceptibility to oral penicillin, and studies of clinical efficacy, nearly all non-meningeal pneumococcal infections can be effectively treated with IV ampicillin or with high dose oral amoxicillin (in children: 80-100 mg/kg/day divided TID; adult dose and maximum dose in children: 1 g TID)

[2] Susceptibility approximately equivalent to ampicillin

[3] Should only be used in combination with other active agents

[4] Erythromycin susceptibility predicts susceptibility to azithromycin and clarithromycin

[5] Oxacillin predicts susceptibility to anti-staphylococcal penicillins, beta-lactam/lactamase inhibitor combinations, oral cephems (e.g. cephalexin, cefprozil, cefuroxime), IV cephems (e.g. cefazolin, cefepime), and carbapenems.

[u] Use for uncomplicated cystitis ONLY

Susceptibility

<60%	60-89%	≥90%

Analysis Key

R	Isolate is resistant
-	Antimicrobial not routinely tested
SP	Susceptibility predicted

18725-011

SANFORD HEALTH
Marshfield Clinic

2025 Combined Antibiogram

Contact Information

For susceptibility test questions and data analysis please contact: Dr. Taylor Wahlig or Dr. Sophie Arbefeville at (715) 381-6300 or ext. 16300.

For antimicrobial stewardship questions please contact: Philip (Logan) Whitfield at (715) 387-7578 or ext. 77578.

For urgent questions regarding a specific patient case, please consult your local infectious diseases physician.

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*Inpatient and outpatient isolates have been combined without clinically or statistically significant differences.

Gram-negative Enterobacterales % Susceptible	No. Tested	Ampicillin	Amox-clav[2]	Ampicillin-sulb	Piperacillin-tazo	Cefazolin[1]	Cefuroxime	Cefpodoxime	Cefoxitin	Ceftriaxone	Cefepime	Aztreonam	Ertapenem	Meropenem	Amikacin	Gentamicin	Tobramycin	Ciprofloxacin	Levofloxacin	Trimeth-Sulfa
Citrobacter freundii complex	178	R	R	R	R	R	R	R	R	R	100	R	99	100	100	94	97	91	91	89
Citrobacter koseri	89	R	100	-	100	99	82	100	99	100	100	100	100	100	100	100	100	99	100	100
Enterobacter cloacae complex	281	R	R	R	R	R	R	R	R	R	98	R	95	100	100	100	99	95	95	93
Escherichia coli	6096	66	86	72	94	70	88	93	93	95	96	96	100	100	100	94	95	84	85	85
Klebsiella aerogenes	141	R	R	R	R	R	R	R	R	R	99	R	99	100	100	100	100	96	96	100
Klebsiella oxytoca	283	R	93	75	92	3	92	97	96	94	98	95	100	100	100	98	98	96	97	96
Klebsiella pneumoniae	991	R	94	86	91	81	92	96	97	96	97	96	100	100	100	97	97	90	90	94
Morganella morganii	80	R	R	25	99	R	R	-	R	93	-	99	100	100	100	95	95	94	94	93
Proteus mirabilis	476	84	85	92	100	11	97	98	98	98	98	100	100	100	100	93	95	89	89	87
Providencia rettgeri	39	R	R	77	97	R	92	95	100	100	100	97	100	100	-	100	97	92	82	95
Serratia marcescens	119	R	R	R	78	R	R	73	R	95	99	99	100	100	100	100	87	91	92	100

Gram-negative Non-Enterobacterales % Susceptible	No. Tested	Piperacillin-tazo	Ceftazidime	Cefepime	Meropenem	Tobramycin	Ciprofloxacin	Levofloxacin	Minocycline	Trimeth-Sulfa
P. aeruginosa	667	93	97	96	95	98	91	88	R	R
S. maltophilia	57	R	-	-	R	R	-	74	93	98

Gram-negative URINE ONLY* % Susceptible	No. Tested	Ampicillin	Amox-clav[2]	Ampicillin-sulb	Piperacillin-tazo	Cefazolin	Cefuroxime	Cefpodoxime	Ceftriaxone	Cefepime	Aztreonam	Ertapenem	Meropenem	Amikacin	Gentamicin	Tobramycin	Ciprofloxacin	Levofloxacin	Nitrofurantoin[U]	Trimeth-Sulfa
Citrobacter freundii complex	156	R	R	R	R	R	R	R	R	100	R	99	100	100	94	96	90	90	94†	88
Citrobacter koseri	80	R	100	-	96	99	81	100	99	100	100	100	100	100	100	100	99	100	92†	100
Enterobacter cloacae	187	R	R	R	R	R	R	R	R	98	R	94	100	99	99	99	94	94	31†	91
Escherichia coli	5863	66	86	73	94	93	88	93	95	96	96	100	100	100	94	95	84	85	98	85
Klebsiella aerogenes	120	R	R	R	R	R	R	R	R	99	R	99	100	100	100	100	97	96	7†	100
Klebsiella oxytoca	230	R	93	75	92	R	92	97	94	98	95	100	100	100	99	99	96	96	73†	97
Klebsiella pneumoniae	922	R	94	86	91	94	92	96	96	97	96	100	100	100	97	97	90	91	24†	94
Morganella morganii	55	R	R	25	98	R	R	-	90	-	99	100	100	100	96	96	93	93	R	95
Proteus mirabilis	413	84	85	92	100	96	98	98	98	98	100	100	100	100	94	95	91	90	R	89
Providencia rettgeri	32	R	R	78	97	R	94	97	100	100	97	100	100	-	100	100	94	81	R	89
Serratia marcescens	57	R	R	R	78	R	R	68	95	98	98	100	100	98	98	81	88	88	R	100

Analysis Key

R	Isolate is resistant
-	Antimicrobial not routinely tested

Susceptibility

≥90%
60-89%
<60%

Notes

[U] Use nitrofurantoin for uncomplicated cystitis ONLY

[1] Non-urine isolates only

[2] In the treatment of infections due to Enterobacterales, use amoxicillin-clavulanate only for uncomplicated cystitis or step-down therapy for systemic infection.

*Assess patient's previous urine culture and susceptibility results. In the absence of previous resistance, first-line agents for uncomplicated cystitis are TMP/SMX, nitrofurantoin, and cephalexin.

†Based on 2024 data