

Gram-positive Streptococci and Enterococci % Susceptible	No. Tested	Ampicillin	Amoxicillin	Penicillin	Ceftriaxone	Meropenem	Clindamycin	Erythromycin	Levofloxacin	Ciprofloxacin	Linezolid	Nitrofurantoin	Tetracycline	Trimeth-Sulfa	Vancomycin
Streptococci															
<i>Grp. B Streptococcus agalactiae</i>	374	100	SP	100	SP	-	41	40	98	-	100	-	16	-	100
<i>Grp. A Streptococcus pyogenes</i>	69	100	SP	100	SP	-	87	87	100	-	100	-	84	-	100
<i>Grp. G Streptococci</i>	74	100	SP	100	SP	-	76	77	96	-	100	-	72	-	100
<i>S. pneumoniae (Non-meningeal)</i>	64	SP[1]	SP[1]	98	97	92	-	77	98	-	-	-	55	82	SP
<i>S. pneumoniae (Meningeal)</i>	64	-	-	80	92	92	-	-	-	-	-	-	-	-	SP
<i>S. anginosus</i>	92	100	SP[2]	100	SP	-	79	70	94	-	100	-	53	-	100
<i>S. constellatus</i>	54	93	SP[2]	98	SP	-	74	74	100	-	100	-	80	-	100
Enterococci															
<i>Enterococcus faecalis</i>	971	100	SP[2]	100	R	-	R	13	89[U]	87[U]	98	100[U]	29[U]	R	100
<i>Enterococcus faecium</i>	96	30	-	29	R	-	R	R	21[U]	22[U]	98	25[U]	24[U]	R	53

Gram-positive Staphylococci % Susceptible	No. Tested	Penicillin	Oxacillin	Ceftaroline	Vancomycin	Erythromycin	Clindamycin	Gentamicin[3]	Trimeth-Sulfa	Linezolid	Daptomycin	Nitrofurantoin	Rifampin[3]	Tetracycline
<i>Staphylococcus aureus</i>	1699	5	71	100	100	61	81	99	95	100	100	100[U]	100	91
<i>Staphylococcus lugdunensis</i>	205	-	92	-	100	84	83	100	100	100	100	100[U]	100	95
<i>Staphylococcus epidermidis</i>	318	-	29	-	100	26	60	91	58	100	100	100[U]	99	73
<i>Staphylococcus intermedius</i>	48	-	90	-	100	73	75	79	83	100	100	100[U]	100	54

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

[U] Use for uncomplicated cystitis ONLY

Susceptibility

<60%	60-89%	≥90%
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Analysis Key

R	Intrinsically resistant
-	Antimicrobial is not tested
SP	Susceptibility predicted



2024 Combined Antibiogram

Contact Information

- For susceptibility test questions and data analysis please contact: **Dr. Taylor Wahlig** or **Dr. Sophie Arbefeville** at **715-221-6141** or ext. 16141
- 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

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

Gram-negative Enterobacterales % Susceptible	No. Tested	Ampicillin	Amoxicillin-clav	Piperacillin-tazo	Cefazolin[1]	Cefuroxime	Cefpodoxime	Cefoxitin	Ceftriaxone	Cefepime	Aztreonam	Ertapenem	Meropenem	Amikacin	Gentamicin	Tobramycin	Ciprofloxacin	Levofloxacin	Doxycycline	Trimeth-Sulfa
<i>Citrobacter freundii</i> complex	204	R	R	R	R	R	R	R	R	100	R	99	100	100	95	98	93	89	87	89
<i>Citrobacter koseri</i>	91	R	99	96	-	-	-	96	99	99	-	99	99	99	99	99	97	98	99	99
<i>Enterobacter cloacae</i> complex	307	R	R	R	R	R	R	R	R	97	R	91	100	100	99	99	95	94	95	92
<i>Escherichia coli</i>	6239	66	89	96	71	87	92	95	95	98	97	100	100	100	94	95	88	85	86	85
<i>Klebsiella aerogenes</i>	134	R	R	R	R	R	R	R	R	100	R	99	100	100	100	100	99	96	94	99
<i>Klebsiella oxytoca</i>	304	R	94	93	-	91	96	99	95	99	94	100	100	100	98	98	97	97	96	96
<i>Klebsiella pneumoniae</i>	1007	R	95	92	79	88	90	96	95	98	91	100	100	100	98	97	91	90	85	93
<i>Morganella morganii</i>	74	R	R	99	R	R	-	R	92	98	-	100	100	100	91	97	78	78	58	81
<i>Proteus mirabilis</i>	460	87	92	100	11	99	99	98	99	99	100	95	100	100	91	93	89	88	R	86
<i>Proteus vulgaris</i>	44	R	70	100	R	R	-	100	-	95	-	98	100	100	100	95	98	95	R	93
<i>Providencia rettgeri</i>	32	R	R	100	R	-	-	91	97	100	-	84	100	-	97	97	84	75	R	91
<i>Serratia marcescens</i>	113	R	R	-	R	R	-	R	98	100	-	96	100	99	99	92	96	95	33	100

Gram-negative Non-Enterobacterales % Susceptible	No. Tested	Piperacillin-tazo	Ceftazidime	Cefepime	Meropenem	Tobramycin	Ciprofloxacin	Levofloxacin	Minocycline	Trimeth-Sulfa
<i>P. aeruginosa</i>	558	94	97	97	97	99	90	82	R	R
<i>S. maltophilia</i>	42	R	-	-	R	R	-	90	93	100

Analysis Key

R	Isolate is resistant
-	Antimicrobial is not tested

Susceptibility

≥90%
60-89%
<60%

Notes

[U] Use for uncomplicated cystitis only

[1] Non-urine isolates only

Gram-negative URINE ONLY % Susceptible	No. Tested	Ampicillin	Amoxicillin-clav	Piperacillin-tazo	Cefazolin[U]	Cefuroxime	Cefpodoxime	Ceftriaxone	Cefepime	Aztreonam	Ertapenem	Meropenem	Amikacin	Gentamicin	Tobramycin	Ciprofloxacin	Levofloxacin	Doxycycline	Nitrofuantion[U]	Trimeth-Sulfa
<i>Citrobacter freundii</i> complex	181	R	R	R	R	R	R	R	100	R	99	100	100	96	99	93	88	87	94	89
<i>Citrobacter koseri</i>	83	R	100	96	R	-	-	100	100	-	100	100	100	100	100	98	99	99	92	100
<i>Enterobacter cloacae</i> complex	226	R	R	R	R	R	R	R	96	R	92	100	100	99	96	96	95	94	31	89
<i>Escherichia coli</i>	5972	66	89	96	93	87	93	95	98	97	100	100	100	94	95	88	85	86	97	85
<i>Klebsiella aerogenes</i>	119	R	R	R	R	R	R	R	100	R	98	100	100	100	100	98	96	95	7	99
<i>Klebsiella oxytoca</i>	263	R	95	94	R	90	97	95	99	95	100	100	100	98	98	97	97	97	73	96
<i>Klebsiella pneumoniae</i>	937	R	95	93	95	88	90	95	98	92	100	100	100	98	97	92	90	85	24	93
<i>Morganella morganii</i>	38	R	R	98	R	R	-	92	97	-	100	100	100	91	96	80	80	42	R	82
<i>Proteus mirabilis</i>	392	87	92	100	99	100	100	99	99	100	95	100	99	92	94	90	89	R	R	88
<i>Proteus vulgaris</i>	35	R	77	100	R	R	-	-	97	-	97	100	-	100	97	97	94	R	R	94
<i>Serratia marcescens</i>	51	R	R	-	R	R	-	98	100	-	94	100	98	98	88	94	92	32	R	100

<-- 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.