

Salt Lake City, UT

Antibiograms summarize local antimicrobial resistance profiles, supporting clinicians in selecting appropriate empiric antibiotics prior to the availability of organism-specific susceptibility. The tables below show the **percentage of microbial isolates susceptible to various antibiotics**. The data was collected in 2024 from Intermountain Health emergency departments and inpatient facilities within the stated geographical region.

Definitive antibiotic therapy should be based on the causative organism(s) susceptibility profile and clinical context once identified.

Susceptibility Rates (%) of Gram-Negative Isolates to Common Antimicrobials

N (#)	Species / Organism	Amoxicillin/ Clavulanate	Ampicillin / Sulbactam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Ciprofloxacin	Ertapenem	Gentamicin	Levofloxacin	Meropenem	Nitrofurantoin *	Piperacillin / Tazobactam	Tetracycline	Tobramycin	TMP/SMX
525	<i>Escherichia coli</i>	78	56	77	86	87	86	74	99	89	78	99	96	97	70	89	67
126	<i>Klebsiella pneumoniae</i>	80	72	78	83	83	82	76	98	87	91	98	54	96	74	88	73
86	<i>Pseudomonas aeruginosa</i>				97	98		81			79	95		99		94	
48	<i>Enterobacter cloacae</i> complx				94	81	71	94	90	98	96	96	38	90	93	94	81
41	<i>Proteus mirabilis</i>	95	80	80	98	100	98	71	100	76	73	100		100		73	68
22	<i>Klebsiella oxytoca</i>	81	64	23	95	91	86	95	95	91	100	95	83	91	89	91	95
18	<i>Klebsiella aerogenes</i> (Entero)				100	61	61	89	94	100	89	100	22	83	89	100	100
15	<i>Citrobacter freundii</i> complex				87	73	73	93	87	93	93	93	80	87	79	93	80
14	<i>Citrobacter koseri</i>	100	100	100	100	100	100	100	100	100	100	100	86	100	100	100	100

Susceptibility Rates (%) of Gram-Positive Isolates to Common Antimicrobials

N (#)	Species / Organism	Ampicillin	Ceftriaxone	Clindamycin <i>Not For UTI</i>	Daptomycin	Levofloxacin	Linezolid	Nafcillin	Nitrofurantoin *	Penicillin	Tetracycline	TMP/SMX	Vancomycin
173	MSSA			81	100		100	100	100	92	99	100	
131	MRSA			83	96		100		100	68	92	100	
128	<i>Enterococcus faecalis</i>	100			59	79	99		100	23		100	
73	<i>Staphylococcus epidermidis</i>			61	100		100	30	100	78	49	100	
68	<i>Streptococcus anginosus</i> group	100	100	85		100	100		99			100	
36	<i>Streptococcus viridans</i> Group		97	91		100	100		42			100	
35	<i>Staphylococcus</i> sp coag neg			72	100		100	74	100	89	84	100	
30	<i>Enterococcus faecium</i>	27			77	27	100		88	33	43	57	

* For cystitis only

TMP/SMX=
trimethoprim/
sulfamethoxazole

Interpret the data
cautiously in organisms
with ≤ 30 isolates,
as they may not be
accurate.

- In 2024, 12% of *E. coli*, 5% of *K. oxytoca*, and 13% of *K. pneumoniae* screened positive for extended spectrum β -lactamase (ESBL).
- Aminoglycoside monotherapy is not recommended for most infections. Gentamicin is no longer recommended for *P. aeruginosa*.
- Certain organisms, including *Enterobacter cloacae*, *Klebsiella aerogenes*, and *Citrobacter freundii* can become resistant to 3rd-generation cephalosporins (ceftriaxone, cefotaxime, ceftazidime) during treatment of severe infections despite initial *in vitro* susceptibility. Cefepime may be an alternative option and higher doses may be required.
- Enterococcus* spp. are intrinsically resistant to cephalosporins. Fluoroquinolones (e.g., ciprofloxacin, levofloxacin) should not be used to treat any enterococcal infection except uncomplicated cystitis in patients with severe penicillin allergy.
- Ertapenem is not active against *Pseudomonas*, *Acinetobacter*, or *Enterococcus* spp.
- Beta-lactamase positive *Haemophilus* spp. are resistant to penicillin, ampicillin, and amoxicillin.
- Beta-hemolytic streptococci (Groups A, B, C, G) are universally susceptible to β -lactams (penicillins, cephalosporins) and vancomycin; therefore routine susceptibility testing is not needed for these agents. However, resistance to clindamycin and azithromycin can be present.
- Methicillin-susceptible *Staphylococcus aureus* (MSSA) are resistant to penicillin, ampicillin, and amoxicillin. First-line agents are nafcillin/dicloxacillin and cefazolin/cephalexin. Second-line agents include: amoxicillin/clavulanate, ampicillin/sulbactam, cefuroxime, and ceftriaxone.
- S. aureus* bacteremia in adults must be treated with intravenous antibiotics and infectious diseases should be consulted. Outcomes with β -lactam treatment for MSSA are better than vancomycin. ***S. aureus* in the blood is never a contaminant.**