Community Antibiograms

Intermountain Health

Summit and Wasatch Counties, 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	Trimethoprim/Sulfamethoxazole
311	*Escherichia coli*	79	64	81	89	89	89	80	100	91	84	100	93	97	69	92	77
55	*Klebsiella pneumoniae*	91	78	91	95	91	93	95	98	98	98	98	43	96	92	98	96
32	*Pseudomonas aeruginosa*				91	97		78			75	97		97		100	
18	*Enterobacter cloacae* cmplx				89	89	78	94	100	100	94	100	50	89	100	100	94
16	*Klebsiella oxytoca*	67	50	38	75	75	75	69	100	81	81	100	80	94	78	75	75
16	*Proteus mirabilis*	94	50	63	94	88	94	44	100	50	44	100		94		50	31

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

N (#)	Species / Organism	Ampicillin	Ceftriaxone	Clindamycin Not For UTI	Daptomycin	Levofloxacin	Linezolid	Nafcillin	Nitrofurantoin *	Penicillin	Tetracycline	Trimethoprim/Sulfamethoxazole	Vancomycin
91	MSSA			70	100		100	100	100		87	99	100
73	*Enterococcus faecalis*	99			49	90*	100		94	99	31		97
34	*Streptococcus anginosus* group		100	85						100			97
29	*Staphylococcus epidermidis*			64	100		100	48	100		97	58	100
19	MRSA			100	100		100		100		82	76	100

* For cystitis only

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

- In 2024, 10% of *E. coli*, 25% of *K. oxytoca*, 6% of *P. mirabilis*, and 5% 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.**

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