Community Antibiograms

Intermountain Health

Boulder County, CO

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
720	*Escherichia coli*	89	66	87	92	91	91	76	99	92	83	100	99	98	79	92	81
165	*Klebsiella pneumoniae*	95	82	89	92	92	92	85	99	93	89	100	43	95	84	95	87
165	*Pseudomonas aeruginosa*				95	93		87			87	95		89		92	
80	*Proteus mirabilis*	100	92	62	98	100	98	85	100	90	85			100		92	90
62	*Klebsiella oxytoca*	85	50	33	95	96	83	95	96	95	98	100	94	87	91	95	93
60	*Enterobacter cloacae* complex				93	70	65	91	78	92	92	100	21	71	90	96	91
42	*Citrobacter freundii* complex				95	66	64	88	95	95	92	100	86	73	83	97	88
29	*Klebsiella aerogenes*				100	75	72	100	100	100	100	100	21	75	100	100	100
21	*Serratia marcescens*				100	100	100	90	100	95	100	100		100		80	100

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

N (#)	Species/Organism	Ampicillin	Ceftriaxone	Clindamycin Not For UTI	Daptomycin	Doxycycline	Levofloxacin	Linezolid	Nafcillin	Nitrofurantoin*	Penicillin	TMP/SMX	Vancomycin
227	MSSA			81	100	98	93	100	100	100		98	100
208	*Enterococcus faecalis*	100			71		90	100		99	100		99
119	*Staphylococcus epidermidis*			67	100	93	84	100	48	100		70	100
87	MRSA			70	100	80	38	100		100		95	100
53	*Streptococcus viridans*		100	90			98	100			100		100
31	*Staphylococcus lugdunensis*			92	100	100	100	100	96	100		100	100
26	*Streptococcus pneumoniae*		96	88			96	100			73	80	100
25	*Enterococcus faecium*	76			95		71	100			100		88
23	Coagulase negative staphylococci			76	100	95	77	100	60	100		87	100

* For cystitis only

TMP/SMX= trimethoprim sulfamethoxazole

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

- In 2024, 7% of *E. coli* and 3% 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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