

Washington County, 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
1559	<i>Escherichia coli</i>	82	64	82	90	90	89	79	100	91	82	100	92	98	72	92	76
421	<i>Klebsiella pneumoniae</i>	85	78	85	88	88	87	82	99	95	88	100	40	98	82	93	85
302	<i>Pseudomonas aeruginosa</i>				89	88		74			74	90		88		98	
147	<i>Proteus mirabilis</i>	93	88	84	96	95	94	63	100	80	65	100		100		80	69
111	<i>Enterobacter cloacae</i> complex				89	72	64	95	86	100	96	99	42	82	94	100	92
96	<i>Klebsiella oxytoca</i>	85	74	15	92	91	89	90	99	91	96	99	82	95	93	92	86
58	<i>Klebsiella aerogenes</i> (Entero)				91	62	59	98	94	97	100	100	31	84	95	100	95
33	<i>Serratia marcescens</i>				85	55	52	79	97	97	88	97		76	17	73	87
33	<i>Citrobacter freundii</i> complex				97	91	94	94	100	97	100	100	92	100	87	97	88

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

N (#)	Species/Organism	Ampicillin	Azithromycin	Ceftriaxone†	Clindamycin	Not For UTI	Daptomycin	Levofloxacin	Linezolid	Nafcillin	Nitrofurantoin*	Penicillin†	Tetracycline	TMP/SMX	Vancomycin
494	MSSA				81	99		100	100	100		94	100	100	
480	<i>Enterococcus faecalis</i>	100			50	88*	99	100	99	100	99	26		99	
236	MRSA				61	100	50	100		100		72	93	100	
133	<i>Staphylococcus epidermidis</i>				63	100		100	28	100		80	52	100	
101	<i>Staphylococcus</i> sp. coagulase neg				72	100		100	77	100		88	90	100	
100	<i>Streptococcus anginosus</i> group	83	83	99	88		100	100			97			98	
47	<i>Enterococcus faecium</i>	47			71	27*	96		54	43	55			77	
39	<i>Streptococcus anginosus</i>	67	100	97	86		100	100			95			95	
37	<i>Staphylococcus lugdunensis</i>				88	100		100	92	100		92	100	100	
32	<i>Streptococcus viridans</i> group	33	67	97	84						75			100	

* For cystitis only

† Not for meningitis

- In 2024, 9% of *E. coli*, 8% of *K. oxytoca*, 4% of *P. mirabilis*, and 11% 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.**