

# Community Antibiograms



## Iron 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		Antimicrobials																																											
		Escherichia coli		Klebsiella pneumoniae		Pseudomonas aeruginosa		Proteus mirabilis		Klebsiella oxytoca		Enterobacter cloacae compl.		Ampicillin/Clavulanate		Ampicillin/Subactam		Cefazolin		Cefepime		Ceftazidime		Ceftriaxone		Ciprofloxacin		Ertapenem		Gentamicin		Levofloxacin		Meropenem		Nitrofurantoin*		Piperacillin/Tazobactam		Tetracycline		Tobramycin		Trimethoprim/Sulfamethoxazole	
330	Escherichia coli	85	65	87	94	93	93	80	100	93	82	100	94	98	81	93	79																												
68	Klebsiella pneumoniae	93	84	95	96	96	96	90	99	94	97	99	41	99	91	94	90																												
25	Pseudomonas aeruginosa				96	100		68			76	96		100																															
22	Proteus mirabilis	82	82	79	91	82	86	77	100	86	77	100		100																															
17	Klebsiella oxytoca	94	71	12	94	94	94	94	100	94	100	100	83	100	100	94	88																												
14	Enterobacter cloacae compl.				100	100	86	100	100	100	100	100	25	100	90	100	86																												

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

N (#) Species/Organism		Antimicrobials														Ampicillin		Clindamycin Not For UTI		Daptomycin		Levofloxacin		Linezolid		Nafcillin		Nitrofurantoin*		Penicillin		Tetracycline		Trimethoprim/Sulfamethoxazole		Vancomycin	
		Enterococcus faecalis		MSSA		Streptococcus anginosus group		Staphylococcus epidermidis		MRSA		Staphylococcus sp coag neg																									
77	Enterococcus faecalis	100		51	90*	95		100	100	100		100	99	22																							
41	MSSA		82	100		100		100	100	100		100	97	97	100																						
17	Streptococcus anginosus group		71									100							100																		
13	Staphylococcus epidermidis		71	100				100	38	100			85	75	100																						
12	MRSA		55	100				100		100		100	100	91	100																						
10	Staphylococcus sp coag neg		83	100				100	80	100		100	100	100																							

\* For cystitis only

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

- In 2024, 6% of *E. coli*, 9% of *P. mirabilis*, 6% of *K. oxytoca*, and 4% 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 (ceftaxime, 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* bacteraemia 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.