

➤ Antimicrobial Stewardship and Laboratory Services



Find antimicrobial stewardship resources.

- **The Antimicrobial Stewardship Website** — A single source for the latest guidelines, care process models, and other resources. Go to intermountain.net, and find “**Antimicrobial Stewardship**” in the A-to-Z Index or by typing “[abx/](#)” in the address bar. From the left navigation, select:
 - “Tracking and Reporting” for online antibiograms
 - “Guidelines and Education” for related care process models
- **GermWatch** — The best resource for finding out “what’s going around.” Click on “**GermWatch**” in the A-to-Z Index on intermountain.net. Scroll down to select “Antibiogram Pocket Cards” under Resources.
- **Formulary** — Go to intermountain.net, hover over “Clinical,” and click on “Pharmacy” listed under Clinical Support Services. Select “Formulary Resources” within the left navigation.
- **Antibiogram Tool** — Access this online, interactive reporting tool by typing “[antibiogram/](#)” in the address bar of either your Google or Internet Explorer browser.



Consult with infectious disease experts.

Infectious diseases experts can answer your patient-related questions. Consider a full infectious diseases consult for:

- Home IV antibiotic therapy
- *S. aureus* and Candida bloodstream infections
Note: never bloodstream contaminants
- Endocarditis
- Central nervous system infections
- Resistant organisms
- Herpes simplex virus in children < 60 days old
- Pediatric bone and joint infections
- Non-formulary and these restricted antimicrobials (see formulary):
 - Ceftazidime/avibactam
 - Ceftolozane/tazobactam
 - Isavuconazole
 - Posaconazole
 - Voriconazole

Contact information:

Stewardship Pharmacists

Gavin Gardner – Heber Valley
Breanne Chipman – Park City

Infectious Diseases Pharmacist

John Veillette (385) 228-9549

ID Telehealth Consults

(801) 50-SCORE

Micro Lab Supervisor

(technical questions)

Andy Baggs (801) 507-2230

Micro Lab (801) 507-2244

Antibiograms are internal tools for inpatient use only and represent all sample types. Please do not share with commercial vendors.

For organisms with less than 30 isolates, interpret cautiously as they may not be accurate.

2018 Antibiogram

Park City & Heber Valley Hospitals

Antibiograms help clinicians select empiric antibiotics until organism susceptibility has been determined. Percentages are based on isolates processed in the microbiology lab over the previous one-year period. Determine definitive antibiotic therapy based on the susceptibility profile of the identified organism(s) and the infection site.

Gram-Negative Bacilli % Susceptible																	
# Tests	Species / Organism	Amikacin	Ampicillin/Sulbactam	Aztreonam	Cefazolin	Cefepime	Ceftazidime	Ceftioxone	Cefuroxime	Ciprofloxacin	Gentamicin	Levofloxacin	Meropenem	Nitrofurantoin (CYSTITIS ONLY)	Piperacillin/Tazobactam	Tobramycin	Trimethoprim/Sulfamethoxazole
274	<i>Escherichia coli</i>	99	58	95	85	94	93	93	89	86	93	86	100	99	98	95	77
45	<i>Klebsiella</i> species	100	80	98	84	98	98	98	95	95	98	100	100	60	100	98	96
The organisms below have < 30 isolates, interpret cautiously as they may be inaccurate.																	
15	<i>Pseudomonas aeruginosa</i>	100	0	93	0	100	100	0	0	100	100	100	100	0	100	100	0
14	<i>Enterobacter cloacae</i>	100	0	93	0	100	79	86	0	100	100	100	100	33	100	100	100
13	<i>Proteus mirabilis</i>	100	69	100	77	100	100	92	92	62	100	77	100	0	100	100	77
8	<i>Citrobacter</i> species	100	0	100	0	100	88	88	0	100	100	100	100	100	100	100	100

BASIC COVERAGE TIPS

- Aminoglycoside monotherapy is not recommended to treat any infection except for plague and tularemia.
- Certain organisms, including *Serratia* spp., *Citrobacter* spp., *Enterobacter* spp., and *Klebsiella aerogenes* can become resistant to 3rd-generation cephalosporins (ceftriaxone, cefotaxime, ceftazidime) during treatment for severe infections despite initial in vitro susceptibilities. Consult infectious diseases or antibiotic stewardship if use is desired.
- *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.

Gram-Positive Cocci % Susceptible															
# Tests	Species / Organism	Ampicillin	Ceftriaxone	Clindamycin (NOT FOR UTI)	Daptomycin	Levofloxacin (CYSTITIS ONLY)	Linezolid	Nafcillin	Nitrofurantoin (CYSTITIS ONLY)	Penicillin	Tetracycline	Trimethoprim/Sulfamethoxazole	Vancomycin		
100	<i>Staphylococcus aureus</i>							62							
38	<i>Staphylococcus aureus</i> MRSA	0	0	91	100		100	0	100	0	100	95	100		
61	<i>Staphylococcus aureus</i> MSSA	0	100	87	100		100	100	100	0	98	100	100		
45	<i>Enterococcus faecalis</i>	100	0	0	98	90	100	0	100	98	21	0	100		
The organisms below have < 30 isolates, interpret cautiously as they may be inaccurate.															
13	<i>Staphylococcus epidermidis</i>	0	46	71	100		100	46	100	0	92	50	100		

- Beta-lactamase positive *Haemophilus* spp. are resistant to penicillin, ampicillin, and amoxicillin.
- β -hemolytic streptococci (Groups A, B, C, G) are universally susceptible to β -lactams (penicillins, cephalosporins) and vancomycin, so routine susceptibility testing is not indicated. Resistance to clindamycin and azithromycin can be present.
- Methicillin-susceptible *Staphylococcus aureus* (MSSA) are resistant to penicillin and ampicillin/amoxicillin. First-line agents are nafcillin/dicloxacillin and cefazolin/cephalexin. Second-line agents include: amoxicillin/clavulanate, ampicillin/sulbactam, cefuroxime, ceftriaxone, cefepime, piperacillin/tazobactam, and carbapenems. *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.**