

UNIVERSITY OF CINCINNATI MEDICAL CENTER
UC Health, Cincinnati, Ohio
2023 Antibiogram Preparation Information

General

- The UCMC Antibigrams for 2023 have been compiled using WHONET software from the World Health Organization.
- Only first isolates from patients in UCMC inpatient locations or from the UCEC are included in these antibiograms.
- The primary susceptibility platform employed for testing in 2023 was the Biomerieux Vitek® 2 System.
- The drugs included in this antibiogram report are the drugs routinely tested and reported at UC Health. These drugs are selected based on a combination of the following: CLSI recommendations, the UC Health formulary, and availability of these drugs on the commercial susceptibility panels.
- Drugs not tested or not indicated for a given source or organism are left blank.
- Only organisms with 20 or more isolates are included on the antibiogram. CLSI recommends using 30 isolates as the cutoff, so those between 20 and 30 are shaded gray.
- If the percentage of susceptible isolates increased by $\geq 10\%$ compared to the previous year's data, the table cell has been shaded green; a decrease by $\geq 10\%$ compared to the previous year's data has been shaded red.
- Gram Positive Antibiogram Notes:
 - Results for *Staphylococcus aureus* are presented in aggregate and broken down based upon MRSA/MSSA.
 - Staphylococci may possess a resistance mechanism to lincosamides that is induced by exposure to macrolides. All *Staphylococcus* species are routinely screened for inducible clindamycin resistance. When this resistance is found, the interpretive result is modified to Resistant and no MIC value is reported.
 - Results listed for *Staphylococcus epidermidis* are based on isolates identified to species; this does not represent an aggregation of results for all coagulase-negative staphylococci.

Gram Positive Organism (# of patient isolates)	Ampicillin	Cefotaxime	Ceftriaxone	Clindamycin	Doxycycline	Erythromycin	Levofloxacin	Linezolid	Oxacillin	Penicillin G	Tetracycline	Trimethoprim/ Sulfamethoxazole	Vancomycin
<i>Enterococcus faecalis</i> (227)	100				32	15	82	96			30		97
<i>Enterococcus faecium</i> (155)	10				12	7	7	96			11		26
<i>Staphylococcus aureus</i> (679)				72	96	41	83	100	51		90	93	100
<i>S. aureus</i> - MRSA (339)				66	93	17	42	100	0		85	89	100
<i>S. aureus</i> - MSSA (353)				78	98	65	92	100	100		94	96	100
<i>Staphylococcus epidermidis</i> (157)				53	88	33	44	100	23		83	49	99
<i>Staphylococcus lugdunensis</i> (33)				70	100	67	100	100	64		97	100	100
<i>Streptococcus pneumoniae</i> (46)				85		57	98	100			100	80	100
non-meningitis therapy interpretations (46)		98	98							98			
meningitis therapy interpretations (46)		96	94							67			

**Streptococcus pneumoniae* MIC interpretations for Cefotaxime, Ceftriaxone, and Penicillin-G vary based on achievable drug levels in the CSF versus blood. Percentages were calculated by applying both sets of interpretations to all 86 isolates.

If the percentage of susceptible isolates increased by $\geq 10\%$ compared to the previous year's data, the table cell has been shaded green; a decrease by $\geq 10\%$ compared to the previous year's data has been shaded red.

Gram Negative Organisms

Emergency & Inpatient

Percent Susceptible

Gram Negative Organism (# of patient isolates)	Ampicillin/ Sulbactam	Ampicillin	Cefazolin*	Cefepime	Ceftriaxone	Ciprofloxacin	Gentamicin	Levofloxacin	Meropenem	Piperacillin/ Tazobactam	Tobramycin	Trimethoprim/ Sulfamethoxazole
<i>Acinetobacter baumannii</i> (35)	56			66	22	44	97	44	47	38	97	44
<i>Citrobacter freundii</i> (26)				96	77	89	92	85	96	92	92	92
<i>Citrobacter koseri (diversus)</i> (38)			92	92	92	95	95	92	95	92	92	100
<i>Enterobacter cloacae complex</i> (158)				85	65	90	92	87	98	69	90	85
<i>Escherichia coli</i> (929)	60	47	78	91	87	71	91	67	99	96	90	70
<i>Klebsiella aerogenes</i> (46)				98	78	93	98	91	100	76	100	100
<i>Klebsiella oxytoca</i> (62)	63		40	95	82	95	95	87	97	84	94	92
<i>Klebsiella pneumoniae</i> (419)	70		75	84	77	77	91	69	99	90	89	78
<i>Morganella morganii</i> (26)	12			100	89	65	96	62	100	96	96	81
<i>Proteus mirabilis</i> (188)	89	70	64	95	89	71	93	70	100	100	92	78
<i>Pseudomonas aeruginosa</i> (416)				88		82	92	78	89	80	95	
<i>Serratia marcescens</i> (74)				100	95	91	97	87	100		95	100
<i>Stenotrophomonas maltophilia</i> (68)								95				89

*Cefazolin values reflect the percentage of Non-Resistant isolates using an MIC breakpoint of ≤ 4 $\mu\text{g/mL}$

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