

2023 Raleigh Campus Antibiogram Inpatient

Antibiogram 2023 Raleigh Campus Inpatient	* Anaerobic coverage	Citrobacter koseri	Citrobacter freundii	Enterobacter cloacae	E. coli	Klebsiella (Enterobacter) aerogenes	Klebsiella pneumoniae	Klebsiella oxytoca	Morganella morganii	Proteus mirabilis	Pseudomonas aeruginosa	Serratia marcescens	Steno. Maltophilia	
Location														
# of Isolates analyzed		32	33	105	1556	93	516	62	38	325	418	73	63	
Amikacin											100%			
Amoxicillin/Clavulanate	*	91%	0%	0%	81%	0%	89%	89%	0%	100%		0%		
Ampicillin	*				52%		0%	0%	0%	81%				
Ampicillin/Sulbactam	*				62%		77%	68%	24%	94%				
Cefazolin Uncomplicated UTI					79%		84%			93%				
Cefepime		100%	97%	99%	86%	97%	87%	95%	100%	96%	90%	99%		
Ceftazidime		94%	58%	71%	85%	70%	86%	94%	84%	95%	89%	99%		
Ceftriaxone		94%	52%	67%	85%	67%	87%	90%	84%	95%		95%		
Ceftolozane/tazobactam											98%			
Ciprofloxacin		100%	91%	97%	76%	99%	91%	100%	89%	81%	88%	99%		
Ertapenem	*	100%	84%	82%	100%	80%	97%	100%	95%	99%		100%		
Gentamicin		100%	91%	96%	92%	99%	93%	98%	97%	93%	95%	95%		
Imipenem/Cilastatin	*	100%	84%	82%	100%	74%	97%	100%	63%		90%			
Levofloxacin		100%	88%	97%	76%	99%	93%	100%	84%	82%	85%	99%	90%	
Meropenem	*										89%			
Nitrofurantoin		91%	94%	65%	97%	31%	32%	89%	0%	0%		0%		
Piperacillin /Tazobactam	*	97%	64%	74%	96%	67%	93%	92%	92%	100%	90%			
Tobramycin		100%	88%	96%	91%	96%	92%	97%	97%	94%	98%	94%		
Trimethoprim-sulfa		97%	91%	95%	75%	95%	86%	95%	84%	85%		100%	92%	
Carbapenemase Resistant Enterobacteriaceae (CRE) - Inpatients only					17 total isolates			Multi-Drug Resistant Gram Negative Rods - Inpatients only					5 total isolates	
E. coli					1 isolate			Multi-Drug Resistant Acinetobacter baumannii					1 isolate	
Enterobacter cloacae					6 isolates			Multi-Drug Resistant Klebsiella pneumoniae					3 isolates	
Klebsiella aerogenes					3 isolates			Multi-Drug Resistant Pseudomonas aeruginosa					1 isolate	
Klebsiella pneumoniae					5 isolates			ESBL Producing Organisms - Inpatients only					294 total isolates	
Citrobacter freundii					1 isolate			E. coli					222 isolates	
Morganell morganii					1 isolate			Klebsiella pneumoniae					69 isolates	
Carbapenemase Producing Enterobacteriaceae (CP-CRE)- Inpatients only					9 total isolates			Klebsiella oxytoca					3 isolates	
Enterobacter cloacae - KPC					5 isolates			This antibiogram has been prepared from SCC SOFT LIS and contains organisms encountered for INPATIENTS only in 2022. Only the first isolate per patient is included in this data.						
Klebsiella pneumoniae - KPC					1 isolate			* Denotes activity against anaerobes. Anaerobes are not tested for susceptibility profiles at WakeMed.						
Klebsiella pneumoniae - OXA-48					1 isolate									
E. coli - KPC					1 isolate									
Citrobacter freundii - KPC					1 isolate									

Antibiograms are published annually for WakeMed Raleigh, WakeMed Cary and WakeMed North by the Microbiology Lab and the Antimicrobial Stewardship Program. 919-350-8075

WakeMed Health and Hospitals
Raleigh, NC

2023 Raleigh Campus Antibioqram Inpatient

GRAM POSITIVE								
Antibiogram 2023 Raleigh Campus Inpatient	*Anaerobic coverage	Enterococcus faecalis	Enterococcus faecium	Staphylococcus epidermidis	Staphylococcus hominis	Staph aureus (MSSA)	Staph aureus (MRSA)	Staphylococcus lugdunensis
Location		INPATIENTS						
# of isolates analyzed		462	57	206	31	591	480	32
		% Susceptible						
Ampicillin	*	100%	26%					
Ceftaroline						100%	100%	
Clindamycin	*			61%	72%	78%	76%	78%
Daptomycin						100%	99%	
Erythromycin Base, Enteric	*			33%	48%	64%	14%	78%
Gentamicin Synergy (high level)		85%	96%					
Levofloxacin		82%	28%					
Linezolid		98%	93%	99%	100%	100%	100%	100%
Nitrofurantoin		99%	23%	100%	97%	100%	100%	100%
Oxacillin				40%	45%	100%	0%	72%
Penicillin G	*	98%	25%	0%	0%	0%	0%	0%
Streptomycin Synergy (high level)		92%	67%					
Tetracycline/Doxycycline	*			78%	81%	96%	84%	100%
Trimethoprim-sulfa				63%	73%	97%	83%	100%
Vancomycin		98%	49%	100%	100%	100%	100%	100%

This antibiogram has been prepared from SCC SOFT LIS.

This antibiogram contains organisms isolated in 2022.

Only the first isolate per patient is included in this data.

* Denotes activity against anaerobes. Anaerobes are not tested for susceptibility profiles at WakeMed.

19 % of Inpatient MSSA are Clindmycin Inducible Resistant

4% of Inpatient MRSA are Clindamycin Inducible Resistant

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**WakeMed Health and Hospitals
Raleigh, NC**

2023 Raleigh Campus Antibiogram Outpatient

GRAM POSITIVE									
Antibiogram 2023 Raleigh Campus Outpatient	* Anaerobic coverage	Enterococcus faecalis	Enterococcus faecium	Staphylococcus epidermidis	Staphylococcus haemolyticus	Staphylococcus lugdunensis	Staphylococcus saprophyticus	Staph aureus (MSSA)	Staph aureus (MRSA)
Location		OUTPATIENTS							
# of isolates analyzed		976	46	414	47	61	268	574	379
		% Susceptible							
Ampicillin	*	100%	35%						
Ceftaroline								100%	100%
Clindamycin	*			73%	55%	89%	74%	75%	75%
Daptomycin								100%	99%
Erythromycin Base, Enteric	*			47%	30%			59%	14%
Gentamicin Synergy (high level)		87%	88%						
Levofloxacin		90%	37%						
Linezolid		98%	89%	100%	100%	100%	100%	100%	100%
Nitrofurantoin		100%	13%	99%	94%	100%	100%	100%	98%
Oxacillin				54%	47%	89%	47%	100%	0%
Penicillin G	*	99%	33%	0%	0%	0%	0%	0%	0%
Streptomycin Synergy (high level)		93%	67%						
Tetracycline/Doxycycline	*			79%	72%	98%	91%	92%	85%
Trimethoprim-sulfa				73%	83%	98%	98%	94%	88%
Vancomycin		98%	83%	100%	100%	100%	100%	100%	100%

<p>This antibiogram has been prepared from SCC SOFT LIS. This antibiogram contains organisms isolated in 2022. Only the first isolate per patient is included in this data. * Denotes activity against anaerobes. Anaerobes are not tested for susceptibility profiles at WakeMed.</p>	<p>22 % of Outpatient MSSA are Clindmycin Inducible Resistant 5% of Outpatient MRSA are Clindamycin Inducible Resistant</p>
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2023 Cary Campus Antibioqram

Gram Negative Organisms									
Antibioqram 2023 Cary Campus	* Anaerobic coverage	Enterobacter cloacae	Escherichia coli	Klebsiella aerogenes	Klebsiella pneumoniae	Klebsiella oxytoca	Proteus mirabilis	Pseudo. aeruginosa	Serratia marcescens
# of isolates analyzed		61	1205	45	366	34	148	150	30
% Susceptible									
Amikacin								99%	
Amoxicillin/Clavulanate	*	0%	85%	0%	89%	76%	100%		0%
Ampicillin	*		54%		0%	0%	80%		
Ampicillin/Sulbactam	*		64%		76%	62%	95%		
Cefazolin Uncomplicated UTI			83%		87%		95%		
Cefepime		93%	89%	100%	89%	82%	97%	90%	100%
Ceftazidime		57%	88%	80%	89%	82%	97%	87%	100%
Ceftriaxone		57%	88%	80%	89%	76%	97%		93%
Ceftolozane/tazobactam								98%	
Ciprofloxacin		98%	80%	100%	93%	88%	85%	87%	93%
Ertapenem	*	87%	100%	94%	98%	89%	99%		97%
Gentamicin		90%	92%	100%	92%	82%	97%	93%	100%
Imipenem/Cilastatin	*	87%	100%	76%	99%	94%		90%	
Levofloxacin		98%	80%	100%	93%	91%	86%	85%	83%
Meropenem	*							90%	
Nitrofurantoin		64%	96%	29%	30%	91%	0%		0%
Piperacillin /Tazobactam	*	66%	97%	78%	94%	82%	100%	91%	100%
Tobramycin		90%	92%	100%	91%	82%	97%	99%	83%
Trimethoprim-sulfa		84%	78%	100%	87%	76%	91%		100%

<p>Drug Resistant Organisms Encountered in 2022:</p> <p>Carbapemem Resistant Enterobacteriaceae (CRE) 8 total isolates</p> <ul style="list-style-type: none"> E. coli 2 isolates Enterobacter cloacae 2 isolates Hafnia alvei 1 isolate Klebsiella aerogenes 2 isolates Klebsiella pneumoniae 1 isolate 	<p style="text-align: center;">This antibioqram has been prepare from SCC SOFT LIS and contains isolates from 2022. Only the first isolate per patient is included in this data. *Denotes activity against anaerobes. Anaerobes are not tested for susceptibility profiles at WakeMed.</p> <p>ESBL Producing Organisms: 157 total isolates</p> <ul style="list-style-type: none"> E. coli 113 isolates Klebsiella pneumoniae 40 isolates Klebsiella oxytoca 4 isolates
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<p>Carbapenemase Producing Enterobacteriaceae (CP-CRE) 1 total isolates</p> <ul style="list-style-type: none"> Klebsiella pneumoniae - KPC 1 isolate 	<p>Multi-Drug Resistant Gram Negative Rods: 2 total isolates</p> <ul style="list-style-type: none"> Pseudomonas aeruginosa 1 isolate Klebsiella pneumoniae 1 isolate
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2023 Cary Campus Antibiogram

GRAM POSITIVE ORGANISMS						
Antibiogram 2023 Cary Campus	*Anaerobic coverage	Enterococcus faecalis	Enterococcus faecium <small>* Low number of isolates Interpret with caution</small>	Staphylococcus epidermidis	Staph aureus (MSSA)	Staph aureus (MRSA)
# of isolates analyzed		277	23	88	200	137
% Susceptible						
Ampicillin	*	100%	48%			
Ceftaroline					100%	100%
Clindamycin	*			57%	81%	70%
Daptomycin					100%	99%
Erythromycin Base, Enteric	*			31%	66%	12%
Gentamicin Synergy		85%	100%			
Levofloxacin		84%	35%			
Linezolid		99%	91%	100%	100%	100%
Nitrofurantoin		100%	13%	100%	99%	98%
Oxacillin				39%	98%	0%
Penicillin G		97%	39%	0%	0%	0%
Streptomycin Synergy		95%				
Tetracycline/Doxycycline	*			82%	87%	78%
Trimethoprim-sulfa				52%	96%	87%
Vancomycin		97%	65%	100%	100%	100%

<p>This antibiogram has been prepared from SCC SOFT LIS This antibiogram contains organisms isolated in 2022. Only the first isolate per patient is included in this data. *Denotes activity against anaerobes. Anaerobes are not tested for susceptibility profiles at WakeMed.</p>	<p>12% of Cary MSSA isolates are positive for Clindamycin Inducible Resistance. 7% of Cary MRSA isolates are positive for Clindamycin Inducible Resistance</p>
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2023 North Campus Antibioqram

GRAM NEGATIVE ORGANISMS						
Antibiogram 2023 North Campus	* Anaerobic coverage	Escherichia coli	Klebsiella (Enterobacter) aerogenes	Klebsiella pneumoniae	Proteus mirabilis	Pseudo. aeruginosa
# of isolates analyzed		954	32	211	94	64
		% Susceptible				
Amikacin						100%
Amoxicillin/Clavulanate	*	85%	0%	91%	100%	
Ampicillin	*	54%		0%	83%	
Ampicillin/Sulbactam	*	64%		81%	97%	
Cefazolin Uncomplicated UTI		85%		86%	98%	
Cefepime		92%	100%	87%	100%	95%
Ceftazidime		91%	81%	87%	100%	94%
Ceftriaxone		91%	81%	87%	100%	
Ceftolozane/tazobactam						98%
Ciprofloxacin		82%	97%	92%	84%	88%
Ertapenem	*	100%	100%	99%	100%	
Gentamicin		92%	100%	90%	96%	94%
Imipenem/Cilastatin	*	100%	89%	99%		91%
Levofloxacin		82%	97%	93%	86%	83%
Meropenem	*					91%
Nitrofurantoin		96%	31%	36%	0%	
Piperacillin /Tazobactam	*	97%	78%	92%	100%	94%
Tobramycin		92%	100%	92%	97%	100%
Trimethoprim-sulfa		78%	97%	86%	89%	

Organisms are reported when 30 or more are encountered per calendar year.

This antibiogram contains organisms isolated in 2022 and has been prepared from SCC SOFT LIS.

Only the first isolate per patient is included in the data per CLSI guidelines.

*Denotes activity against anaerobes. Anaerobes are not tested for susceptibility profiles at WakeMed.

** 11% of North MSSA isolates are positive for Clindamycin Inducible Resistance.

***2% of North MRSA isolates are positive for Clindamycin Inducible Resistance.

Resistant Organisms:

ESBL E. coli 80 isolates

ESBL K. pneumoniae 29 isolates

ESBL K. oxytoca 2 isolates

Carbapenem Resistant (CRE):

Klebsiella pneumoniae 1 isolate

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2023 North Campus Antibioqram

Gram Positive Organisms					
Antibiogram 2023 North Campus	*Anaerobic coverage	Enterococcus faecalis	Staphylococcus epidermidis	Staph aureus (MSSA)	Staph aureus (MRSA)
# of isolates analyzed		127	81	104	89
		% Susceptible			
Ampicillin	*	100%			
Ceftaroline				100%	100%
Clindamycin	*		69%	71% **	74% ***
Daptomycin				100%	100%
Erythromycin Base, Enteric	*		40%	57%	6%
Gentamicin Synergy		83%			
Levofloxacin		83%			
Linezolid		95%	100%	100%	100%
Nitrofurantoin		98%	100%	100%	97%
Oxacillin			43%	100%	0%
Penicillin G		100%	0%	0%	0%
Streptomycin Synergy		86%			
Tetracycline/Doxycycline	*		72%	94%	83%
Trimethoprim-sulfa			58%	99%	85%
Vancomycin		98%	100%	100%	100%

Organisms are reported when 30 or more are encountered per calendar year.

This antibiogram contains organisms isolated in 2022 and has been prepared from SCC SOFT LIS.
 Only the first isolate per patient is included in the data per CLSI guidelines.
 *Denotes activity against anaerobes. Anaerobes are not tested for susceptibility profiles at WakeMed.
 ** 18% of North MSSA isolates are positive for Clindamycin Inducible Resistance.
 ***5% of North MRSA isolates are positive for Clindamycin Inducible Resistance.

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