Northern Health Authority Annual Antibiogram 2023*

Greater than or equal to 80% s	uscepti	bility =	GOO	D CH	DICE		L	ess t	han 8	0% su	scep	otibility = POOR CHOICE						
Northern Health Authority Gram Negative Organisms % Susceptible	# of isolates	Amoxicillin/ Clavulanate	Ampicillin	Piperacillin/ Tazobactam	Cefazolin	Cefuroxime	Cefixime	Cefotaxime or Ceftriaxone	Ceftazidime	Meropenem	Gentamicin	Tobramycin	TMP/SMX	Ciprofloxacin	Moxifloxacin	Nitrofurantoin ^U		
Escherichia coli	4807	85	64	94	88	-	93	94	-	100	95	96	86	82	-	97		
Citrobacter freundii	97	R	R	R	R	R	R	R	-	100	97	99	93	90	-	95		
Citrobacter koseri	46	26	R	24	24	-	-	26	26	100	100	100	100	100	-	94		
Enterobacter cloacae complex ^a	275	R	R	-	R	-	-	-	-	100	99	99	95	93	-	30		
Klebsiella aerogenes ^b	58	R	R	-	R	-	-	-	-	98	100	100	98	97	-	14		
Klebsiella oxytoca	162	93	R	97	55	-	96	96	98	99	99	98	92	97	-	88		
Klebsiella pneumoniae	498	93	R	95	91	-	95	95	95	100	98	97	93	91	-	43		
Morganella morganii	60	R	R	-	R	R	-	-	-	100	88	91	83	82	-	-		
Proteus mirabilis	244	93	75	98	74	-	96	97	-	100	96	98	87	94	-	-		
Serratia marcescens	46	R	R	-	R	R	-	-	-	100	100	96	100	100	-	R		
Pseudomonas aeruginosa	331	R	R	88	-	-	-	R	87	85	97	100	R	85	-	-		
Stenotrophomonas maltophilia °	25	R	R	R	-	-	-	R	R	R	-	-	88	-	-	-		
Haemophilus influenzae	60	79	75	-	-	93	-	100	-	-	-	-	56	-	100	-		

Notes

Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism encountered on a given patient.

Legend a Enterobacter cloacae complex includes Enterobacter asburiae, E. cloacae and E. hormaechei.

b Previously known as Enterobacter aerogenes. Reporting hasn't changed in LIS yet. c organisms with less than 30 isolates have decreased statistical validity

U Urinary tract infections only

R Intrinsic resistance

- Drug not tested or indicated



10-201-6002 (FF06439-IND-Rev.-03/23)

Northern Health Authority Annual Antibiogram 2023*

Greater than or equal to 80% s	uscepti	bility =	GOO	D CHO	DICE		Less than 80% susceptibility = POOR CHOICE											
Northern Health Authority Gram Negative Organisms % Susceptible	# of isolates	Amoxicillin/ Clavulanate	Ampicillin	Piperacillin/ Tazobactam	Cefazolin	Cefuroxime	Cefixime	Cefotaxime or Ceftriaxone	Ceftazidime	Meropenem	Gentamicin	Tobramycin	TMP/SMX	Ciprofloxacin	Moxifloxacin	Nitrofurantoin ^U		
Escherichia coli	4807	85	64	94	88	-	93	94	-	100	95	96	86	82	-	97		
Citrobacter freundii	97	R	R	R	R	R	R	R	-	100	97	99	93	90	-	95		
Citrobacter koseri	46	26	R	24	24	-	-	26	26	100	100	100	100	100	-	94		
Enterobacter cloacae complexª	275	R	R	-	R	-	-	-	-	100	99	99	95	93	-	30		
Klebsiella aerogenes b	58	R	R	-	R	-	-	-	-	98	100	100	98	97	-	14		
Klebsiella oxytoca	162	93	R	97	55	-	96	96	98	99	99	98	92	97	-	88		
Klebsiella pneumoniae	498	93	R	95	91	-	95	95	95	100	98	97	93	91	-	43		
Morganella morganii	60	R	R	-	R	R	-	-	-	100	88	91	83	82	-	-		
Proteus mirabilis	244	93	75	98	74	-	96	97	-	100	96	98	87	94	-	-		
Serratia marcescens	46	R	R	-	R	R	-	-	-	100	100	96	100	100	-	R		
Pseudomonas aeruginosa	331	R	R	88	-	-	-	R	87	85	97	100	R	85	-	-		
Stenotrophomonas maltophilia c	25	R	R	R	-	-	-	R	R	R	-	-	88	-	-	-		
Haemophilus influenzae	60	79	75	-	-	93	-	100	-	-	-	-	56	-	100	-		

Notes Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism encountered on a given patient.

Legend a Enterobacter cloacae complex includes Enterobacter asburiae, E. cloacae and E. hormaechei.

b Previously known as Enterobacter aerogenes. Reporting hasn't changed in LIS yet.

c organisms with less than 30 isolates have decreased statistical validity U Urinary tract infections only

R Intrinsic resistance

- Drug not tested or indicated



Northern Health Authority Annual Antibiogram 2023*

Greater than or equal to 80%	suscep	otibilit	y = G0	OOD C	CHOIC	Ε	Less than 80% susceptibility =POOR CHOICE												
Northern Health Authority Gram Positive Organisms % Susceptible	# of isolates	Amoxicillin	Ampicillin	Cloxacillin	Penicillin	Cefazolin ^A	Cefotaxime or Ceftriaxone	Erythromycin	Clindamycin	Ciprofloxacin	Moxifloxacin	Gent Synergy	TMP-SMX	Tetracycline	Nitrofurantoin ^U	Vancomycin	Linezolid		
Staphylococcus aureus†	2012	-	-	73	-	73	-	73	85	-	-	-	92	97	-	100	-		
S. aureus (MRSA)‡	535	R	R	R	R	R	R	R	83	-	-	-	91	95	-	100	100		
Staphylococcus epidermidis	186	-	-	47	-	48	-	42	78	-	-	-	76	89	-	100	-		
Staphylococcus lugdunensis	84	-	-	88	-	87	-	100	90	-	-	-	100	99	-	100	100		
Enterococcus faecalis	786	100 ^B	100	R	-	-	R	R	R	87	-	87	-	-	99	99	-		
Enterococcus faecium	136	R	R	R	-	-	R	R	R	16	-	88	-	-	-	46‡	98		
Group A Streptococcus	553	100 ^c	100 ^c	-	100	-	100	79	77	-	-	-	R	-	-	100	-		
Group B Streptococcus	189	100 ^c	100	-	99	-	100 ^s	55	56	-	-	-	R	-	-	100	-		
Group C & G Streptococcus	230	100 ^c	100°	-	100	-	100 ^s	70	78	-	-	-	R	-	-	100	-		
Streptococcus pneumoniae	107	100	-	-	100 ² 75 ³	-	100 ² 91 ³	72	-	-	100	-	76	-	-	100	-		

Notes

Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism encountered on a given patient. Organisms with less than 30 isolates have decreased statistical validity MRSA rate = 27%

- Legend Drug not tested or indicated
 - \$ Insufficient data to provide interpretable susceptibility result
 - U Urinary tract infections only
 - R Intrinsic resistance
 - A Extrapolated from Cloxacillin
 - C Extrapolated from Penicillin

- † Total Staphylococcus aureus isolates (includes MSSA and MRSA)
- ‡ Represents clinical isolates excludes colonization/screens
- 2 non-meningitis
- 3 meningitis
- B Extrapolated from Ampicillin

*Prepared by Ally King, Microbiology Quality Resource Technologist, January 2023 based on 2022 cumulative AST data from Jan. 1 2022 to Dec. 31 2022, As per CLSÍ document M39-A4 Analysis and presentation of cumulative antimicrobial susceptibility tests data – approved guideline – 4th edition

Northern Health Authority Annual Antibiogram 2023*

Greater than or equal to 80% s	uscep	otibility	y = G(OOD (CHOIC	E		Less	than	80%	susc	eptib	ility =	POO	R CH	OICE	
Northern Health Authority Gram Positive Organisms % Susceptible	# of isolates	Amoxicillin	Ampicillin	Cloxacillin	Penicillin	Cefazolin ^A	Cefotaxime or Ceftriaxone	Erythromycin	Clindamycin	Ciprofloxacin	Moxifloxacin	Gent Synergy	TMP-SMX	Tetracycline	Nitrofurantoin ^U	Vancomycin	Linezolid
Staphylococcus aureus†	2012	-	-	73	-	73	-	73	85	-	-	-	92	97	-	100	-
S. aureus (MRSA)‡	535	R	R	R	R	R	R	R	83	-	-	-	91	95	-	100	100
Staphylococcus epidermidis	186	-	-	47	-	48	-	42	78	-	-	-	76	89	-	100	-
Staphylococcus lugdunensis	84	-	-	88	-	87	-	100	90	-	-	-	100	99	-	100	100
Enterococcus faecalis	786	100 ^B	100	R	-	-	R	R	R	87	-	87	-	-	99	99	-
Enterococcus faecium	136	R	R	R	-	-	R	R	R	16	-	88	-	-	-	46‡	98
Group A Streptococcus	553	100 ^c	100 ^c	-	100	-	100	79	77	-	-	-	R	-	-	100	-
Group B Streptococcus	189	100 ^c	100	-	99	-	100 ^s	55	56	-	-	-	R	-	-	100	-
Group C & G Streptococcus	230	100 ^c	100 ^c	-	100	-	100 ^s	70	78	-	-	-	R	-	-	100	-
Streptococcus pneumoniae	107	100	-	-	100 ² 75 ³	-	100 ²	72	-	-	100	-	76	-	-	100	-

Notes

Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism encountered on a given patient. Organisms with less than 30 isolates have decreased statistical validity MRSA rate = 27%

- **Legend** Drug not tested or indicated
 - \$ Insufficient data to provide interpretable susceptibility result
 - U U Urinary tract infections only
 - R Intrinsic resistance
 - A Extrapolated from Cloxacillin
 - C Extrapolated from Penicillin

- † Total Staphylococcus aureus isolates (includes MSSA and MRSA)
- ‡ Represents clinical isolates excludes colonization/screens
- 2 non-meningitis
- 3 meningitis
- B Extrapolated from Ampicillin

^{*}Prepared by Ally King, Microbiology Quality Resource Technologist, January 2023 based on 2022 cumulative AST data from Jan. 1 2022 to Dec. 31 2022, As per CLSI document M39-A4 Analysis and presentation of cumulative antimicrobial susceptibility tests data – approved guideline – 4th edition