

Antibiotic % Susceptibility
Calgary Zone Rural Emergency Department
May -December 2023^a

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

	N	Penicillin	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin/Clavulanate	Piperacillin/Tazobactam	Cephalexin	Cefazolin	Cefixime	Ceftriaxone	Ceftazidime	Clindamycin	Trimethoprim-sulfamethoxazole	Vancomycin	Doxycycline ^b	Tetracycline ^c	Nitrofurantoin ^b	Fosfomycin(PO) ^b	Ciprofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
Gram Positive:																							
Enterococcus faecalis	146		100 ^d				R	R	R	R	R	R	R	100		27	100		93 ^b				
Staphylococcus aureus (all)	680			84			84	84				88	89	100		97	99		83				
MSSA	570			100			100	100				89	89	100		97	99		93				
MRSA	110			R			R	R				85	89	100		95	99		31				
Staphylococcus lugdunensis	64			98			98	98				95	100	100		97	100		100				
Streptococcus, group A	80	100	100				100	100				86		100									
Gram Negative:																							
Escherichia coli	1661		63		91	98	92 ^b	89	91	92			82				99		76	93	93	100	100
ESBL E. coli	117		R				R	R	R	R			50		42		92	98	19	69	65	100	100
Klebsiella pneumoniae complex	170		R		95	96	93 ^b	92	93	94			89				54		88	98	97	100	100
Proteus mirabilis	52		81		94	100	98 ^b	87	98	98			75		R	R	R		88	85	85	100	100
Pseudomonas aeruginosa	30		R		R	100	R	R	R	R	100		R		R	R			93		100	R	100

^aDue to launch of Connect Care in May 2023, data from Jan-April not included.

^bUrinary isolates only

^cSusceptibility to doxycycline can be inferred from susceptibility to tetracycline

^dFor Enterococci, results of ampicillin susceptibility testing can be used to predict the activity of amoxicillin, amoxicillin-clavulanate, piperacillin-tazobactam and for E. faecalis only, additionally imipenem.

Note: Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism recovered from a given patient during the time period analyzed.

Abbreviations: MSSA - methicillin-susceptible Staphylococcus aureus; ESBL - extended spectrum beta-lactamase; R - intrinsic resistance



ALBERTA PRECISION LABORATORIES

Leaders in Laboratory Medicine

Antibiotic % Susceptibility Patterns Calgary Zone Rural Emergency January - December 2022

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

LABORATORIES		Data derived from routine susceptibility tests performed by 78 Acute & Residency Laboratories																										
Leaders in Laboratory Medicine		N	Penicillin (IV)	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin-Clavulanate	Piperacillin-Tazobactam	Cephalexin	Cefazolin	Cefixime	Ceftriaxone	Ceftazidime	Azithromycin	Clindamycin	Trimethoprim-sulfamethoxazole	Vancomycin	Tetracycline ^e	Doxycycline ^b	Nitrofurantoin ^b	Fosfomycin (PO) ^b	Ciprofloxacin	Levofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem		
Gram-positive																												
Enterococcus faecalis		184		100				R	R	R	R	R	R	R	R	100	20		97		92 ^b							
Staphylococcus aureus	All	538			86			86	86					87	93	100	97											
	MSSA	461			100			100	100					86	93	100	97											
	MRSA	79			R			R	R					91	91	100	99											
Staphylococcus lugdunensis		64			100			100	100					92	100	100	97											
Streptococcus anginosus ^a		43	100								100			79		100												
Streptococcus, group A		53	100	100					100					91		100												
Streptococcus pneumoniae ^d	meningitis	33	85																									
	non-meningitis	33	100										82									100						
Gram-negative																												
Citrobacter freundii complex ^a		30		R		R		R	R						83									97	100	100	100	
Citrobacter koseri ^d		33		R		100	100		97	100	100				97						97			100	100			
Enterobacter cloacae complex ^a		44		R		R		R	R						100						95			100	100	100	100	
Escherichia coli	All	1555		66		89	94	93 ^b	89	93	94				85				37		98		80	94	94			
	ESBL	71		R				R	R	R	R	R			49				46	89	97	6		75	63	100	100	
Klebsiella (Enterobacter) aerogenes ^{a,d}		35		R		R		R	R						97				17		94			100	97	100	100	
Klebsiella oxytoca		32		R		97	97		75	97	97				100						94			100	97			
Klebsiella pneumoniae complex		145		R		95	95	96 ^b	94	95	95				92				41		90			99	99			
Proteus mirabilis		51		92		94	94	93 ^b	62	94	94				90			R	R	R		96			92	94	R	97
Pseudomonas aeruginosa		39		R		R	97				R	97			R			R	R	R		85				97	R	97

^a These organisms usually produce β-lactamase which can cause failure of 3rd generation cephalosporin therapy, despite in vitro susceptibility

^b Urine isolates only

^c Susceptibility to doxycycline can be inferred from susceptibility to tetracycline

^d Combined data (January - December 2021 and January - December 2022) due to the small number of isolates in 2022

Note: Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism recovered from a given patient during the time period analyzed.

Abbreviations: MSSA - methicillin-susceptible Staphylococcus aureus; MRSA - methicillin-resistant Staphylococcus aureus; ESBL - extended spectrum beta-lactamase; R - intrinsic resistance