

**Antibiotic % Susceptibility
Calgary Zone Rural Community
May -December 2023^a**

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

	N	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin/Clavulanate	Piperacillin/Tazobactam	Cephalexin	Cefazolin	Cefixime	Ceftriaxone	Ceftazidime	Clindamycin	Trimethoprim-sulfamethoxazole	Vancomycin	Doxycycline ^c	Tetracycline	Nitrofurantoin ^b	Fosfomycin (PO) ^b	Ciprofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
Gram Positive:																						
Enterococcus faecalis	201	100 ^d				R	R	R	R	R	R	R	100		27	100		92 ^b				
Staphylococcus aureus (all)	154		90			90	90				86	96	100		96	100						
MSSA	138		100			100	100				87	96	100		96	100						
Gram Negative:																						
Escherichia coli	991	65		91	98	93 ^b	91	92	94			84				99		75	94	95		
ESBL E. coli	54	R		83	91	R	R	R	R	R		54		50		94	98	20	81	81	100	100
Klebsiella oxytoca	40	R		100	100			98	98			100				95		98	98	98		
Klebsiella pneumoniae complex	181	R		96	96	91 ^b	90	91	91			90				61		88	98	98		
Proteus mirabilis	39	82		97	100	92 ^b	89	95	95			82		R	R	R		87	92	95		
Pseudomonas aeruginosa	37	R		R	92	R	R	R	R	100		R		R	R			84		100	R	97

^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



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

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

N		Penicillin (IV)	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin-Clavulanate	Piperacillin-Tazobactam	Cephalexin	Cefazolin	Cefixime	Ceftriaxone	Ceftazidime	Clindamycin	Trimethoprim-sulfamethoxazole	Vancomycin	Tetracycline ^c	Doxycycline ^b	Nitrofurantoin ^b	Fosfomycin (PO) ^b	Ciprofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
Gram-positive																							
Enterococcus faecalis		294	100				R	R	R	R	R	R	R	100	29		100		94 ^b				
Enterococcus faecium ^d		34	62				R	R	R	R	R	R	R	88	50		18		47 ^b				
Staphylococcus aureus	All	327		89			89	89				84	94	100	97								
	MSSA	294		100			100	100				84	96	100	97								
	MRSA	39		R			R	R				87	82	100	92								
Staphylococcus lugdunensis		49		98			98	98				96	100	100	100								
Streptococcus, group A ^d		37	100	100				100				73		100									
Streptococcus, group B ^d		34	100	100				100				65		100									
Gram-negative																							
Citrobacter freundii complex ^a		30		R		R		R	R				93				97		100	100	100	100	100
Citrobacter koseri ^d		48		R		98	98	98 ^b	98	98	98		98				89		100	98	100		
Enterobacter cloacae complex ^a		39				R		R	R				97				39		100	100	100	100	100
Escherichia coli	All	1837		68		90	95	92 ^b	90	93	95		86				99		77	94	95		
	ESBL	82		R				R	R	R	R	R	50			52	94	99	15	65	62	100	100
Klebsiella (Enterobacter) aerogenes ^{a,d}		51		R		R		R	R				100				31		98	100	100	100	100
Klebsiella oxytoca		48		R		94	96	89 ^b	60	100	98		98				87		94	100	100		
Klebsiella pneumoniae complex		256		R		96	98	97 ^b	96	97	98		95				38		89	98	99		
Morganella morganii ^{a,d}		33		R		R		R	R				88				R		70	94	100	100	100
Proteus mirabilis		74		82		97	99	96 ^b	76	99	99		88		R	R	R		95	88	92		
Pseudomonas aeruginosa		41		R		R	93			R	93		R		R	R			80		100	R	88

^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