

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	Azithromycin ^d	Clindamycin	Trimethoprim-sulfamethoxazole	Vancomycin	Doxycycline	Minocycline	Tetracycline ^d	Nitrofurantoin ^c	Fosfomycin (PO) ^f	Ciprofloxacin	Levofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
Gram Positive:																											
Enterococcus faecalis		3668		100 ^b				R	R	R	R	R		R	R	100			23	99		92 ^c					
Enterococcus faecium		172		47 ^b				R	R	R	R	R		R	R	87			40	24		36 ^c					
Staphylococcus aureus	all	3858			85			85	85					85	90	100			96								
	MSSA	3285			100			100	100					87	90	100			97								
	MRSA	613			R			R	R					73	89	100			91								
Staphylococcus, coagulase-negative		62			64			66	66					82	75	100			89								
Staphylococcus intermedius/pseudointermedius		42			88			88	88					86	81	100			71								
Staphylococcus lugdunensis		314			97			98	98					91	100	100			97								
Streptococcus anginosus group		76	99								99			86		100											
Streptococcus, group A		385	100	100				100	100					89		100											
Streptococcus pneumoniae, non-meningitis		35	95										46										100				
Gram Negative:																											
Acinetobacter baumannii complex		40		R		R	88					100			98						98		100	100	R	100	
Citrobacter freundii complex ^a		241		R		R		R	R						89				98		87		95	97	99	100	
Citrobacter koseri		287		R		98	100	98 ^c	91	98	99				100				93		99		100	100	100	100	
Enterobacter cloacae complex ^a		416		R		R		R	R						94				52		94		98	98	97	100	
Escherichia coli	all	15783		62		90	93	89 ^c	87	89	91								99		72		93	94			
	ESBL	1342		R				R	R	R	R	R			51		50		96	97	19		76	70	100	100	
Haemophilus influenzae		42		74											71				91								
Klebsiella (Enterobacter) aerogenes ^a		204		R		R		R	R						100					33		98		100	100	100	100
Klebsiella oxytoca		456		R		95	96	81 ^c	18	99	96				97				98		95		99	99			
Klebsiella pneumoniae complex	all	2191		R		97	95	94 ^c	93	95	95				91				56		89		98	98			
	ESBL	116		R				R	R	R	R	R			28		40		36		28		77	76	100	100	
Morganella morganii ^a		122		R		R		R	R						84					R		82	94	95	100	100	
Proteus mirabilis		736		85		97	97	96 ^c	90	97	97				84		R	R	R	R		91		94	95		
Providencia species ^a		41		R		R		R	R						98		R	R	R	R		95		95	95	100	100
Pseudomonas aeruginosa		479		R		R	96				R	R	97								86				99	R	91
Serratia marcescens ^a		88		R		R		R	R						100					R				100	99	98	97
Stenotrophomonas maltophilia		33		R		R	R				R	31			97			100					91	R	R	R	R

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

^bFor 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.

^cUrinary isolates only

^dSusceptibility to doxycycline can be inferred from susceptibility to tetracycline

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

^fRespiratory specimens only

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 Community - Calgary January - December 2022

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

LABORATORIES Leaders in Laboratory Medicine		Data derived from routine susceptibility tests performed by Alberta Health Services Laboratories																											
		N	Penicillin (IV)	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin-Clavulanate	Piperacillin-Tazobactam	Cephalexin	Cefazolin	Cefixime	Ceftriaxone	Ceftazidime	Azithromycin	Clarithromycin	Clindamycin	Trimethoprim-sulfamethoxazole	Vancomycin	Tetracycline ^c	Minocycline	Doxycycline ^b	Nitrofurantoin ^b	Fosfomycin (PO) ^b	Ciprofloxacin	Levofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem	
Gram-positive																													
Enterococcus faecalis		3422		100				R	R	R	R	R			R	R	100	23			99		93 ^b						
Enterococcus faecium		126		54				R	R	R	R	R			R	R	90	48			27		38 ^b						
Enterococcus species - other		30		93				R	R	R	R	R			R	R	57	30					93 ^b						
Staphylococcus aureus	All	2991		86			86	86							84	92	100	97											
	MSSA	2582		100			100	100							85	93	100	97											
	MRSA	447					R	R							80	88	100	94											
Staphylococcus, coagulase-negative		72		60			60	60							72	74	100	82											
Staphylococcus intermedius/pseudointermedius ^d		68		93			93	93							85	87	100	84											
Staphylococcus lugdunensis		385		97			97	97							88	100	100	97											
Streptococcus anginosus group		133	100								100				79		100												
Streptococcus, group A		588	100	100				100							86		100												
Streptococcus, group B		217	100	100				100							56		100												
Streptococcus, group C/G ^d		38	100	100				100							61		100												
Streptococcus pneumoniae	meningitis	47	85																										
	non-meningitis	47	100									87												100					
Gram-negative																													
Acinetobacter baumannii complex		47		R		R	94					98				91					R	96		96	100	R	100		
Citrobacter freundii complex ^a		252		R		R		R	R						87					96		86		94	95	99	99		
Citrobacter koseri		323		R		99	99	98 ^b	98	100	100				99					90		99		100	100				
Eikenella corrodens ^d		51		100											96								100						
Enterobacter cloacae complex ^a		445		R		R		R	R						92					34		93		99	99	99	100		
Escherichia coli	All	17855		64		89	92	90 ^b	87	91	92				82					99		73		93	93				
	ESBL	1214		R				R	R	R	R	R			49				52	94	98	8		72	67	100	100		
Haemophilus influenzae		48		79									83		73														
Klebsiella (Enterobacter) aerogenes ^a		245		R		R		R	R						98					21		97		100	100	100	100		
Klebsiella oxytoca		451		R		91	93	88 ^b	48	98	93				95					92		95		99	99				
Klebsiella pneumoniae complex	All	2172		R		95	96	96 ^b	95	96	96				92					33		89		98	98				
	ESBL	69		R				R	R	R	R	R			29				30	17		10		67	62	97	99		
Morganella morganii ^a		140		R		R		R	R						73					R		73		89	91	99	100		
Pasteurella species		35	100									100			100		100												
Proteus mirabilis		786		84		98	98	97 ^b	78	98	98				85		R	R	R	R		91		92	94				
Proteus vulgaris ^{a,d}		37		R				R	R						86		R	R	R	R		100		95	100	100	100		
Providencia species		33		R		R		R	R						100		R	R	R	R		100					100	100	
Pseudomonas aeruginosa		464		R		R	97			R	R	98			R		R	R	R			83				97	R	93	
Serratia marcescens ^a		110		R		R		R	R						99							93		100	98	100	100		
Stenotrophomonas maltophilia ^a		47		R		R	R					R	28		96				96				85	R	R	R	R	R	

^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