

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	Azithromycin ^f	Clindamycin	Trimethoprim-sulfamethoxazole	Vancomycin	Doxycycline	Tetracycline ^d	Nitrofurantoin ^c	Fosfomycin (PO) ^c	Ciprofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
Gram Positive:																								
Enterococcus faecalis	271		100 ^b				R	R	R	R	R		R	R	100		25	99		89 ^c				
Enterococcus faecium	113		16 ^b				R	R	R	R	R		R	R	69		21	16		13 ^c				
Staphylococcus aureus (all)	331			86			86	86					84	93	100		97							
MSSA	287			100			100	100					85	94	100		98							
MRSA	47			R			R	R					77	89	98		87							
Staphylococcus, coagulase-negative	109			41			41	41					63	62	100		91							
Streptococcus anginosus group	51	100								100			76		100									
Gram Negative:																								
Citrobacter freundii complex ^e	39		R		R		R	R						74				97		79	82	82	85	85
Enterobacter cloacae complex ^e	100		R		R		R	R						90				43		89	94	93	90	100
Escherichia coli	485		53		82	81	80 ^c	69	79	81				75				97		61	90	90		
ESBL E. coli	86		R				R	R	R	R	R			38		37		90	92	8	65	64	100	100
Haemophilus influenzae	40		73							100		95		72			95							
Klebsiella (Enterobacter) aerogenes ^e	37		R		R		R	R						97				30		89	100	100	100	100
Klebsiella oxytoca	56		R		91	87		15	91	87				89				95		89	96	93		
Klebsiella pneumoniae complex	186		R		92	91	90 ^c	87	91	91				87				49		85	97	97		
Proteus mirabilis	56		88		96	96	95 ^c	79	96	96				86		R	R	R		91	93	96	100	100
Pseudomonas aeruginosa	157		R		R	87			R	R	91			R		R	R	R		88		97	R	92
Serratia marcescens ^e	33		R		R		R	R						100				R		94	100	94	94	97

^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 Foothills Hospital 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	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		421	100				R	R	R	R	R			R	R	100	24			99		90 ^b					
Enterococcus faecium		135	22				R	R	R	R	R			R	R	74	38			16		19 ^b					
Enterococcus species, other ^d		37	86				R	R	R	R	R			R	R	78	53					94 ^b					
Staphylococcus aureus	All	401		85			85	85						83	96	100	97										
	MSSA	345		100			100	100						85	97	100	98										
	MRSA	65					R	R						70	91	100	94										
Staphylococcus, coagulase-negative		113		39			39	39						67	65	100	87										
Staphylococcus lugdunensis ^d		48		90			90	90						79	100	100	94										
Streptococcus anginosus group		86	99							98				87		100											
Streptococcus viridans group ^d		42	68							97				85		100											
Streptococcus pneumoniae	meningitis	37	72																								
	non-meningitis	37	94									69											100				
Gram-negative																											
Acinetobacter baumannii complex ^d		39		R		R	97					100			92							92		92	92	R	100
Citrobacter freundii complex ^a		54		R		R		R	R					70						97		67		85	87	91	91
Citrobacter koseri ^d		46		R		93	98	93 ^b	96	100	98			100						93		96		100	100		
Enterobacter cloacae complex ^a		128		R		R		R	R					93						39		91		97	96	93	98
Escherichia coli	All	749	59		85	85	86 ^b	77	84	85				78						98		69		92	93		
	ESBL	92		R				R	R	R	R	R		42				42		96	96	7		73	73	100	100
Haemophilus influenzae		48	88										85	75													
Klebsiella (Enterobacter) aerogenes ^a		30		R		R		R	R					100								100		100	100	93	100
Klebsiella oxytoca		74		R		93	93	92 ^b	42	99	93			95						92		97		99	99		
Klebsiella pneumoniae complex	All	232		R		90	90	92 ^b	85	90	90			88						42		80		96	95		
	ESBL ^d	42						R	R	R	R	R		43								7		52	60	100	100
Morganella morganii ^{a,d}		52		R		R		R	R					73						R		71		88	90	100	100
Proteus mirabilis		84	82		96	96	95 ^b	64	98	96				83		R	R	R	R			88		95	95		
Pseudomonas aeruginosa		214		R		R	89				R	R	91		R		R	R	R			83			97	R	88
Serratia marcescens ^a		46		R		R		R	R					100						R		98		98	89	100	100
Stenotrophomonas maltophilia ^{a,d}		70		R		R	R				R	44			100			100					84	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