ALBERTA PRECISION LABORATORIES
Leaders in Laboratory Medicine

Antibiotic % Susceptibility
Calgary Zone, Urine - Females 16-40yrs
May -December 2023[d]

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

	N	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin/Clavulanate	Piperacillin/Tazobactam	Cephalexin (Urine)	Cefazolin	Cefixime	Ceftriaxone	Trimethoprim-sulfamethoxazole	Vancomycin	Doxycycline	Tetracycline	Nitrofurantoin	Fosfomycin	Ciprofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
Gram Positive:																				
Enterococcus faecalis	**1067**	100[e]				R	R	R	R	R	100		22[c]	99		94	R	R		
Staphylococcus aureus (all)[a]	**68**		91				90			96	100	94		97		90				
MSSA[a]	**62**		100				100			97	100	97		98		92				
Gram negative:																				
Citrobacter koseri	**72**	R		99	100	97		99	97	100				92		100	100	100	100	100
Enterobacter cloacae complex[b]	**46**	R		R		R	R			98				37		98	100	100	98	100
Escherichia coli (All)	**5238**	62		90	98	89	87	89	91	80				99		74	94	94		
Escherichia coli (ESBL)	**448**	R		76		R	R	R	R	54		55		96	98	22	76	71	100	100
Klebsiella (Enterobacter) aerogenes[b]	**64**	R		R		R	R			100				25		98	100	100	100	100
Klebsiella oxytoca	**31**	R		97	97			97	97	100				100		97	100	97	100	100
Klebsiella pneumoniae complex	**366**	R		97	96	95	95	96	96	92				49		92	98	97	100	100
Proteus mirabilis	**108**	87		97	100	97	94	97	97	87		R	R	R		97	97	99	100	100

[a]Staphylococcus aureus bacteriuria may be associated with blood stream or other systemic infection. Clinical correlation required

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

[c]Organisms susceptible to tetracycline are also considered suscetible to doxycycline and minocycline

[d]Due to launch of Connect Care in May 2023, data from Jan-April not included.

[e]For Enterococci, results of ampicillin susceptiblity 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: Urine - Females 16 - 40 years
Emergency and Community Patients
January - December 2022

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

		N	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin-Clavulanate	Piperacillin-Tazobactam	Cephalexin	Cefazolin	Cefixime	Ceftriaxone	Ceftazidime	Trimethoprim-sulfamethoxazole	Vancomycin	Tetracycline[c]	Doxycycline	Nitrofurantoin	Fosfomycin (PO)	Ciprofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
Gram-positive																						
Enterococcus faecalis		958	**100**				R	R	R	R	R	R	**100**	**23**		**99**		**95**				
Enterococcus faecium[d]		33	**82**				R	R	R	R	R	R	**91**	**70**		**21**		**73**				
Staphylococcus aureus[a]	All	89		**92**				**92**					**100**									
	MSSA	82		**100**				**100**					**100**									
Gram-negative																						
Citrobacter freundii complex[b,d]		58	R		R		R	R				**97**				**98**		**93**	**100**	**98**	**100**	**100**
Citrobacter koseri		96	R		**100**	**99**	**100**	**99**	**100**	**100**		**99**				**92**		**100**	**100**	**100**		
Enterobacter cloacae complex[b]		47	R		R		R	R				**98**				**38**		**100**	**100**	**100**	**100**	**100**
Escherichia coli	All	6866	**63**		**89**	**93**	**92**	**88**	**92**	**93**		**81**				**99**		**76**	**94**	**94**		
	ESBL	401	R				R	R	R	R	R	**47**			**49**	**94**	**99**	**9**	**74**	**71**	**100**	**100**
Klebsiella (Enterobacter) aerogenes[b]		76	R		R		R	R				**99**				**13**		**100**	**100**	**100**	**100**	**100**
Klebsiella oxytoca		41	R		**93**	**93**	**88**	**49**	**98**	**93**		**98**				**98**		**98**	**98**	**98**		
Klebsiella pneumoniae complex		462	R		**96**	**96**	**97**	**96**	**97**	**97**		**93**				**25**		**93**	**98**	**98**		
Proteus mirabilis		144	**88**		**98**	**100**	**99**	**81**	**99**	**99**		**87**		R	R	R		**94**	**92**	**92**		
Pseudomonas aeruginosa[d]		38	R		R	**97**			R	R	**97**	R		R	R			**87**	**97**	**100**	R	**95**

[a] Staphylococcus aureus bacteriuria may be associated with blood stream or other systemic infection. Clinical correlation required.
[b] These organisms usually produce β-lactamase which can cause failure of 3rd generation cephalosporin therapy, despite in vitro susceptibility
[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; ESBL - extended spectrum beta-lactamase; R - intrinsic resistance