ALBERTA PRECISION LABORATORIES

Leaders in Laboratory Medicine

Antibiotic % Susceptibility Patterns
Community - Calgary
January - December 2019

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

			n	Penicillin (IV)	Ampicillin / Amoxicillin	Cloxacillin	Amoxicillin- Clavulanate (PO)	Piperacillin-Tazobactam	Cephalexin (urine)	Cefazolin	Cefuroxime	Ceftriaxone	Ceftazidime	Azithromycin	Clindamycin	Trimethoprim-Sulfamethoxazole	Vancomycin	Tetracycline[b]	Nitrofurantoin	Fosfomycin	Ciprofloxacin[f,g]	Levofloxacin	Gentamicin	Tobramycin	Ertapenem	Meropenem
GP	*Enterococcus faecalis*		3095		100				R	R	R	R	R		R	R	100	21[c]	98		91[c]					
	Enterococcus faecium		136		50				R	R	R	R	R		R	R	85	52[c]	25		39[c]					
	Enterococcus species - other		41		98				R	R	R	R	R		R	R	88	56[c]	76[d]		93[c]					
	Staphylococcus aureus	All	3605			84				84					86	93	100	96								
		MSSA	3067			100				100					86	94	100	96								
		MRSA	584			R				R					80	89	100	92								
	Coagulase-negative *Staphylococcus*		176			58				58					77	76	100	82								
	Staphylococcus lugdunensis		378			96				96					88	100	100	98								
	Streptococcus anginosus group		103	87								100		73[a]	80		100	60								
	Group A *Streptococcus*		903	100						100		100		78[a]	84		100									
	Group B *Streptococcus*		302	100						100		100		53[a]	56		100									
	Streptococcus pneumoniae	meningitis	62	85								97[d]					100[d]									
		non-meningitis	62	98								98[d]		81				79				100				
GN	*Haemophilus influenzae*		76		67						93					66										
	Citrobacter freundii complex[e]		301		R		R		R	R	R					88			97		88		99	98	100	100
	Citrobacter koseri		365		R		99	100	99	98		99				99			90		98		100	100	100	100
	Enterobacter cloacae complex[e]		402		R		R		R	R						96			31		96		99	99	100	100
	Escherichia coli	All	20845		60		87	92	92	88		92				78			98		77		93	93	100	100
		ESBL	1449		R				R	R	R	R	R			44			93	97	14		69	64	100	100
	Klebsiella (Enterobacter) aerogenes[e]		232		R		R		R	R						99			14		97		100	99	100	100
	Klebsiella oxytoca		429		R		95	97	88	51		94				95			89		96		99	98	100	100
	Klebsiella pneumoniae complex		2288		R		95	97	95	95		96				91			39		90		97	97	100	100
	Morganella morganii[e]		106		R		R		R	R	R					73		R	R		79		92	94	100	100
	Pasteurella species		30	97										97		100		100								
	Proteus mirabilis		786		83		98	100	97	86		98				83		R	R		90		91	93	100	100
	Pseudomonas aeruginosa		420		R		R	98				R	98			R		R			84			98	R	95
	Serratia marcescens[e]		90		R		R		R	R	R					99			R		91		99	90	100	100
	Stenotrophomonas maltophilia		53		R		R	R				R	42			100						87	R	R	R	R

[a] As inferred from susceptibility to erythromycin

[b] Susceptibility to doxycycline can be inferred from susceptibility to tetracycline

[c] Urine isolates only

[d] Testing not performed for all isolates included. The %S statistic presented in the table is an adjusted estimate of %S based on the data available and an assumption that isolates not tested are susceptible.

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

[f] Revised (2019) CLSI Enterobacterales interpretive criteria for susceptible are being used for the first time to calculate %S; these are ≤ 0.25 µg/mL and ≥ 26 mm for ciprofloxacin. Previous CLSI interpretive criteria for susceptible were ≤ 1 µg/mL and ≥ 21 mm

[g] Revised (2019) CLSI Pseudomonas aeruginosa interpretive criteria for susceptible are being used for the first time to calculate %S; these are ≤ 0.5 µg/mL and ≥ 25 mm for ciprofloxacin. Previous CLSI interpretive criteria for susceptible were ≤ 1 µg/mL and ≥ 21 mm

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: GP - Gram-positive; GN - Gram-negative; MSSA - methicillin-susceptible Staphylococcus aureus; MRSA - methicillin-resistant Staphylococcus aureus; ESBL - extended spectrum beta-lactamase; R - intrinsic resistance