

The following antibiogram is a profile of antibiotic susceptibility results from bacterial pathogens isolated from stool cultures submitted to LifeLabs British Columbia from January 1, 2021 to December 31, 2021. Calculations are performed as per the Clinical and Laboratory Standards Institute (CLSI) document M39-A4. For pathogens where <30 isolates were available, results for the 3 years of 2019-2021 were included to generate a larger sample size; these isolates are highlighted in grey.

Many bacterial gastrointestinal pathogens are self-limiting and do not require treatment with antibiotics. Please see the notes below the table for additional details.

ORGANISM	# isolates tested	Comments	Antibiotic (% susceptible)						
			Ampicillin/ Amoxicillin	TMP-SMX	Ciprofloxacin	Tetracycline	Azithromycin	Cefixime	Ceftriaxone
<i>Aeromonas</i> spp.*	260		R	96	99	94			98
<i>Campylobacter jejuni</i> *	65		R	R	48	54	95		
Shiga-toxin producing <i>E. coli</i> (ETEC) including 0157:H7	Susceptibility testing is not performed. Antibiotics should be avoided/stopped since antibiotic treatment may increase the risk of hemolytic uremic syndrome (HUS).								
<i>Salmonella</i> § (non-typhoidal)	158		96	99	95		@	99	99
<i>Salmonella</i> – typhoidal ( <i>S. typhi</i> and <i>paratyphi</i> )	37	49% of isolates were <i>S. typhi</i> and 51% were <i>S. paratyphi</i> A.	95 (81% if blood isolates included)	100	25		@		100
<i>Shigella</i> spp.	55	60% of isolates were <i>S. sonnei</i> ; 40% were <i>S. flexneri</i> .	6	5	4		@	95	98
<i>Vibrio</i> spp.#	58	Included <i>V. cholerae</i> (n=4), <i>V. fluvialis</i> (n=6) and <i>V. parahaemolyticus</i> (n=48)	R	100	98	100	@		100
<i>Yersinia enterocolitica</i> *	365		R	99	99	98	R		100

\*Gastrointestinal infection with these organisms tends to be self-limited so routine antibiotic treatment may not be required except in severe illness or in patients who are immunocompromised or frail.

§ Treatment of gastroenteritis caused by non-typhoidal *Salmonella* is not typically recommended for healthy people >6 months or <50 years of age. Treatment is recommended in older patients/patients with vascular grafts to reduce the risk of endovascular infection, or in those with severe symptoms.

# Treatment of gastroenteritis caused by *Vibrio cholerae* is typically recommended. Treatment of infection caused by other *Vibrio* species is often self-limited so routine antibiotic treatment may not be required except in severe illness or in patients who are immunocompromised or frail.

@ Azithromycin may be a reasonable treatment option for *Salmonella*, *Shigella*, and *Vibrio* infections when clinically indicated; however, LifeLabs does not currently perform routine susceptibility testing for this drug.

	90-100% of isolates are susceptible to the antibiotic indicated ( <b>GOOD CHOICE</b> )
	51-89% of isolates are susceptible to the antibiotic indicated ( <b>INTERMEDIATE CHOICE</b> )
	0-50% of isolates are susceptible to the antibiotic indicated ( <b>POOR CHOICE</b> )
R	The organism is inherently resistant to the antibiotic indicated <b>OR</b> is not recommended due to poor clinical response and/or poor activity
	Antimicrobial susceptibility testing not performed

TMP-SMX = Trimethoprim-Sulfamethoxazole