

Gastroenteritis:

A Serious Medical and Economic Burden

A variety of bacterial, viral, and parasitic organisms may cause infectious gastroenteritis.

- Diagnostically, it's difficult to differentiate due to similar symptoms.^{1,2}
- 80% of all causes of diarrhea are currently unidentified.²

Diarrhea inflicts a significant toll on the health care system and can result in a high degree of morbidity and mortality in select populations.³

- Globally, there are an estimated 2 billion cases of diarrheal disease every year, which kill approximately 1.8 million people annually.⁴
- In 2014, the U.S. associated cost for the 128,000+ patients hospitalize for diarrheal diseases was over \$6.2 billion.⁵

Hospital outbreaks of gastroenteritis may have undesirable consequences.6

• Outbreaks may lead to hospital ward closures or major disruption in routine hospital activity.

Diarrhea can also have a major impact in society.

• Significant number of days can be lost at school or work.

Inappropriate use of therapeutics provides favorable conditions for the emergence of resistant organisms.

- When infections become resistant to first-line therapeutics, more expensive therapies must be used.
- Prolonged and severe illness may lead to increased health care costs and financial burden.⁷



Same Day Results for 14 of the Most Common Causes of Infectious Diarrhea

xTAG® Gastrointestinal Pathogen Panel (GPP)

Get fast, comprehensive results: Detect and identify >90% of the causative bacterial, viral and parasitic agents of gastroenteritis within 5 hours^{2,8}

- Simplify your detection process: One test provides answers for 14 pathogens
- Provides accurate data for better patient management and outbreak investigations
- 99% NPV provides confidence in a negative result

Bacteria & Bacterial Toxins	Viruses	Parasites
Campylobacter (C. jejuni, C. coli, and C. lari only)	Adenovirus 40/41	Cryptosporidium (C. parvum and C. hominis only)
Clostridium difficile (C. difficile) Toxin A/B	Norovirus GI/GII	Entamoeba histolytica (E. histolytica)
Escherichia coli (E. coli) O157	Rotavirus A	Giardia lamblia (G. lamblia only, also known as G. intes- tinalis and G. duodenalis)
Enterotoxigenic <i>E. coli</i> (ETEC) LT/ST		
Salmonella		
Shiga-like Toxin producing <i>E. coli</i> (STEC) <i>stx1/stx2</i>		
Shigella (S. boydii, S. sonnei, S. flexneri, and S. dysenteriae)		
Vibrio cholerae, cholera toxin gene (ctx)		

xTAG® GPP: Transforming GI Diagnostics

Method	Tests For	Turnaround Time ^{9, 10, 11}
Stool culture	Single bacterial pathogen per test	2-3 days
Ova and parasite (O&P) exam	Parasitic pathogens	Several days-sample must be collected over multiple days
Rapid Tests (Rapid Immunoassays-lateral- flow, immunochromatography, dot blot)	Single pathogen per test	20-30 minutes
Real-time PCR	1–3 pathogens per test	Under 5 hours
ELISA	Single antigen/antibody per test	6-24 hours
xTAG° GPP	14 bacterial, viral, and parasitic pathogens in a single test	Under 5 hours*

^{*}Time includes extraction steps and is for 24 samples. Does not include sample pretreatment.

Ask your laboratory for xTAG GPP, and realize how accurate detection of GI pathogens may help you improve patient outcomes and use of isolation facilities.

xTAG GPP positive results are presumptive and must be confirmed by FDA cleared tests or other acceptable reference methods. xTAG GPP is not intended to monitor or guide treatment for *C. difficile* infections. Please refer to the IVD package insert for the complete intended use and indications for uses.

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To learn more, please visit: www.luminexcorp.com/gpp

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