Gastrointestinal Pathogen Testing

testing by molecular methods
at ARUP Laboratories
The various pathogens—bacteria, parasites, and viruses—that can cause GI infections have historically required an assortment of classical detection methods (e.g., culture, antigen EIA, stool parasite microscopy) to target and identify the causative agent. Many of these methods suffer from variable specificity and sensitivity, and are often poorly utilized by physicians who don’t understand each method’s intended use. Multiplex molecular tests allow for several of the most common GI pathogens to be tested at once, while providing improved analytical specificity and sensitivity versus most classical methodologies.

When to Order Testing
- Persistent or chronic diarrhea
- Bloody diarrhea
- Diarrhea in association with systemic illness
- Immunocompromised status
- Returned traveler
- Hospitalized patient
- Outbreak identification

In healthcare settings and in specific populations (newborns/infants, elderly or immunocompromised patients), these infections are potentially serious. Rapid diagnosis is important for appropriate treatment and infection control measures.

Benefits of ARUP’s Gastrointestinal PCR Testing
- Superior sensitivity and specificity for detection of the most common enteric pathogens.
- Faster diagnosis of gastrointestinal infections with fewer tests and reduced costs.
- Easy specimen submission with no required transport media, allowing for other add-on stool testing.
- Co-infections determined by one multi-pathogen panel versus multiple tests.
- No cross-reactivity seen for 43 organisms (bacteria, viruses, and parasites) tested.

Laboratory Testing

<table>
<thead>
<tr>
<th>ARUP test code and name</th>
<th>Description</th>
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<tbody>
<tr>
<td>2002838 Clostridium difficile Toxin B Gene (tcdB) by PCR</td>
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<tr>
<td>2011660 Gastrointestinal Parasite and Microsporidia by PCR</td>
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<td>2012678 Gastrointestinal Bacterial Panel by PCR</td>
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<tr>
<td>2011150 Gastrointestinal Parasite Panel by PCR</td>
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<td>2013577 Gastrointestinal Viral Panel by PCR</td>
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<td>2011626 Microsporidia by PCR</td>
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<td>0051281 Norovirus Group 1 and 2 Detection by RT-PCR</td>
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Specific Supplies
Available online through eSupply using ARUP Connect™ or contact ARUP Client Services at (800) 522-2787.

All tests: Transfer 1 mL (minimum: 0.5 mL) stool to an unpreserved stool transport vial (ARUP supply #40910).

>200 MM

More than than 200 million episodes of infectious gastroenteritis occur annually in the United States.

These tests detect infections that would otherwise have been undiagnosed.

3–6 MM

Worldwide, 3–6 million children die from infectious gastroenteritis each year.