

Gastroenteritis (aka “stomach flu”) is characterized by watery diarrhea, vomiting, cramping and, in some cases, fever. In the United States, these infections are commonly caused by viruses and are usually self-limiting. In those cases caused by bacteria, the most commonly identified pathogens are *Salmonella*, *Campylobacter*, *Shigella* and *E. coli* (especially O157:H7). Treatment is not recommended in all cases of bacterial gastroenteritis. Antimicrobials should only be initiated in certain clinical scenarios and once a pathogen is identified. Using traditional culture methods, this can delay initiation of antibiotic therapy by up to 4 days.<sup>1</sup>

**Effective August 9, 2016, TriCore Reference Laboratories will introduce a new PCR-based test for bacterial pathogens.** This new testing is being implemented to **decrease turnaround time and increase accuracy and sensitivity to aid in both patient treatment and antimicrobial stewardship.** This assay will be available for any samples previously ordered as a stool culture (CST). There will be no changes in sample type or collection requirements. Please continue to order *Clostridium difficile* or enteric parasite testing as currently recommended in the TriCore Test Directory.

For a limited time, two stool pathogen tests will be available to order. **Stool PCR (STLPCR)** will function as the primary test for stool pathogens and has a turnaround time of **24 hours** upon receipt in the lab. This PCR-based test is the FDA approved Becton Dickinson Enteric Bacterial Panel. The panel tests for:

- *Salmonella* spp.
- *Campylobacter* spp. (*jejuni* and *coli*)
- *Shigella* spp. / Enteroinvasive *E. coli* (EIEC)
- Shiga toxin 1 (*stx1*) / Shiga toxin 2 (*stx2*) genes found in Shiga toxin-producing *E. coli* (STEC) as well as *Shigella dysenteriae*, which can possess a Shiga toxin gene (*stx*) that is identical to the *stx1* gene of STEC.<sup>2</sup>

**Traditional Stool Culture (CST)** will remain an orderable test. This test should **not** be ordered concurrently with STLPCR. If a pathogen is suspected that is not detected by the PCR-based testing, please be sure to indicate your required testing in the special requests/comments/remarks area. Any test that does not specify PCR will currently be ordered as a traditional stool culture.

TEST CODE	METHODOLOGY	TARGETS	RESULTED	BENEFITS
STLPCR	PCR	<i>Salmonella</i> , <i>Shigella</i> , <i>Campylobacter</i> and Shiga toxin	Within 24 hours upon receipt in the lab	<ul style="list-style-type: none"> <li>■ increased diagnostic accuracy</li> <li>■ improved TAT</li> </ul>
CST	Culture	Traditional and special requests ( <i>Yersinia</i> , <i>Vibrio</i> , <i>Aeromonas</i> , <i>Plesiomonas</i> )	Final positive within 4 days	For detection of specific pathogens not included in STLPCR

Please be advised that additional changes to our enteric pathogens testing menu are scheduled for later in 2016. Please consult with your TriCore account executive regarding your patients’ cost for STLPCR.

#### References

<sup>1</sup> ASM Poster 2013; *Evaluation of costs, technologists’ time and turn-around time for conventional stool cultures.*

<sup>2</sup> Becton, Dickinson and Company, Sparks, MD 21152. BD MAX™ Enteric Bacterial Panel 443378. 2014-05.