

Pathology and Laboratory Medicine Memorandum

To: Central Zone Healthcare Providers and Health Service Directors

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Message: Changes to testing for bacterial stool pathogens

Starting on November 4, 2024, the Central Zone Microbiology Laboratory will be transitioning testing for bacterial stool pathogens causing community-acquired diarrhea from traditional culture-based detection to molecular testing by PCR.

The new PCR test is a more sensitive assay and will detect *Shigella*, *Campylobacter*, *Salmonella*, and shiga toxin producing strains of *E. coli* (e.g. O157:H7). For patients with a travel history or on special request, an extended panel will be available that also detects *Plesiomonas*, *Yersinia*, and *Vibrio* species in addition to the standard pathogens. All stools with positive PCR results will continue to be cultured allowing for antibiotic testing (if indicated), and to facilitate reporting to public health (i.e. typing).

Are there any changes to stool collection for bacterial pathogens?

No. Continue to submit stool samples in Cary-Blair media (enteric transport media) as you currently do for traditional stool cultures other than *C. difficile*.

*Are there any changes to testing for other stool pathogens (*C. difficile*, viruses and parasites)?*

No. Continue to use the collection containers that you currently use for *C. difficile* (dry, sterile container), viruses (dry, sterile container), and parasites (SAF media).

What does a positive PCR but a negative culture mean?

PCR is more sensitive than culture and can detect organisms that fail to grow. A positive PCR result indicates the presence of the pathogen identified.

Please ensure that stool tests are ordered only when indicated by symptoms and be sure to include relevant patient information like travel history and duration of symptoms. If you have any questions, please contact the Microbiology Laboratory at 902-473-2120.