

Laboratory News

VOL. 48, NO. 2 – February 11, 2025

Implementing a reverse two-step algorithm for the testing of *Clostridioides difficile*

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Effective February 24th, 2025 the Microbiology and Molecular Pathology laboratory will implement a reverse two-step algorithm for the testing of *Clostridioides difficile*.

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Updated Algorithm and Interpretation

All *Clostridioides difficile* samples will be tested by PCR. Samples that are PCR positive will be tested by lateral flow enzyme immunoassay (EIA) for the presence of GDH and Toxin A/B. For PCR positive tests, PCR and EIA results will be released together. GDH and Toxin A/B results should be interpreted in conjunction with PCR results and should not be considered confirmatory tests. The interpretative comments shown below will be included with patient results. This reverse two-step algorithm provides a more complete diagnostic picture for *C. difficile* infection and aligns with [IDSA guidance](#). Analytical time will be 24 hours.

Interpretative Comments

PCR	GDH	Toxin A/B	Comment
Positive	Positive	Positive	Positive for <i>Clostridioides difficile</i> infection (CDI)
Positive	Positive	Negative	A PCR-Positive sample that is GDH-positive and toxin A/B negative by enzyme immunoassay (EIA) may indicate true <i>Clostridioides difficile</i> infection (CDI). Correlation with clinical symptoms is advised.
Positive	Negative	Negative	A PCR-Positive sample with no GDH or toxin A/B detected by enzyme immunoassay (EIA) may indicate colonization. However, if clinical symptoms are consistent with <i>Clostridioides difficile</i> infection (CDI), treat according to guidelines.
Negative	N/A	N/A	Negative for <i>Clostridioides difficile</i> infection (CDI).

Questions

For questions, please contact Dr. Taylor Wahlig or Dr. Sophie Arbefeville in the Microbiology and Molecular Pathology laboratory at 715-221-6141.