

Technical Bulletin

Clostridioides difficile Test Change

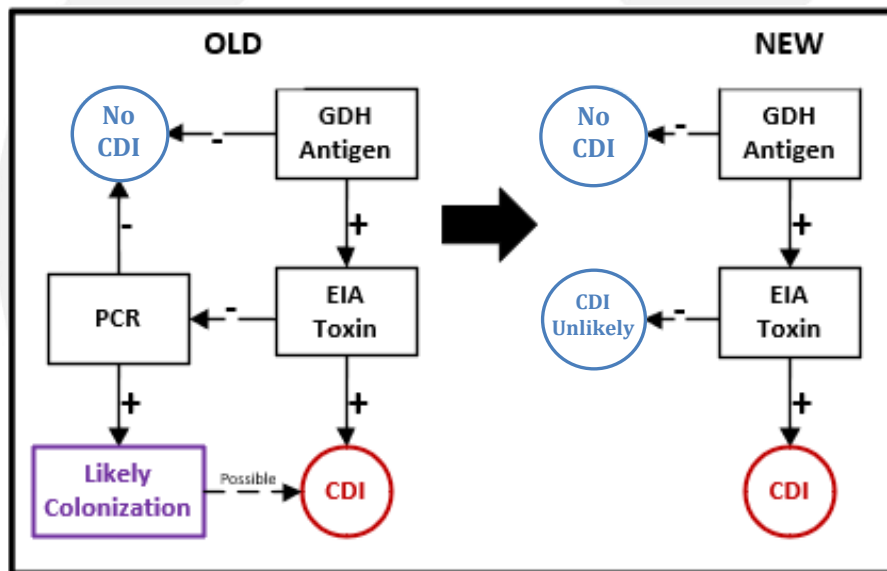
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Effective July 1, 2025, the Methodist Health System will be updating their testing algorithm for *C. difficile* infection (CDI) testing. All laboratories will utilize the same combined GDH antigen and toxin testing screen. However, cases that are GDH antigen positive and toxin negative will not automatically reflex to PCR.

Change:

- The CDI testing algorithm modified from an auto-reflex PCR to a clinician-ordered PCR for GDH+/Toxin- cases.
- PCR testing is still available if clinically indicated. The clinicians will notify the lab to add on the C.diff by PCR test



Background:

- Asymptomatic colonization occurs in up to 50% of patients admitted to the hospital. A PCR cannot differentiate between colonization and actual toxin-production/clinical disease.
- Clinically, in the setting of a negative toxin test, a positive PCR most often reflects colonization as opposed to infection (ie CDI).
- This change is intended to improve diagnostic stewardship, reduce overdiagnosis, and avoid treatment of colonization in asymptomatic carriers.

Order: Toxigenic *Clostridioides Difficile* by EIA

Reporting/Interpretation:

- **GDH antigen+/Toxin+:** Toxin Producing *C. difficile* **Present. CDI is likely** in the appropriate clinical setting. Initiate CDI therapy. Discontinue antimicrobials thought to be causing CDI if clinically appropriate. Consider discontinuing concomitant H₂RAs & PPIs. Initiate enhanced contact isolation.
- **GDH antigen-/Toxin-:** **Negative** Toxin producing *C. difficile*/CDI **NOT PRESENT.** CDI therapy and/or isolation not indicated. Evaluate for other causes of diarrhea
- **GDH antigen+/Toxin-:** **Colonization likely / CDI unlikely** but **MAY BE PRESENT.** CDI therapy and/or isolation generally NOT indicated. Evaluate for other causes of diarrhea.

In patients with severe, non-resolving diarrhea, or otherwise strongly suspected CDI, *may* consider additional testing with PCR, or empiric treatment as CDI without additional testing. All positive PCR results (when performed) will be accompanied by a comment noting the intended use for diagnostic confirmation in GDH+/toxin- cases and that clinical correlation is essential.

Please direct any questions to Nagarjuna Cheemarla, Director of Microbiology, at 402-354-4560.