

Guidance to Providers: Testing for *C. difficile* Infection

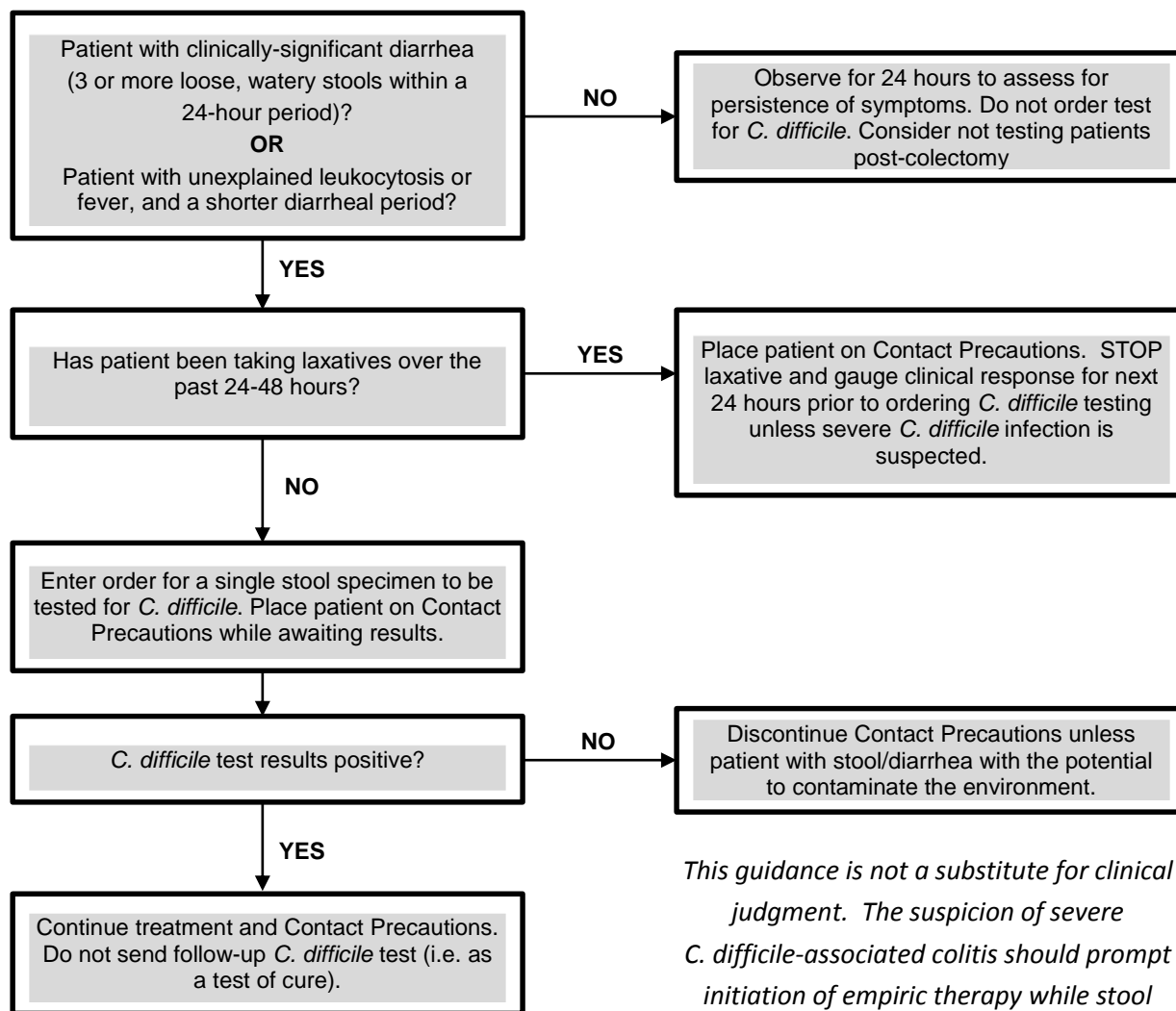
The diagnosis of Clostridium difficile infection (CDI) requires the detection of bacterial toxin or the gene for the presence of toxin (PCR).

Selecting the most appropriate patient population for testing will enhance the positive predictive value of the CDI testing algorithm.

To facilitate enhanced diagnostic practices, the following recommendations are made:

- 1) Testing for *C. difficile* should be performed on patients with clinically-significant diarrhea, defined as 3 or more loose stools within a 24-hour period.^{1,2} Providers should ensure that the patient has not been administered laxatives in the prior 24-48hrs as a possible explanation of diarrheal symptoms. Providers should ensure that the patient is not receiving tube feedings which could contribute to loose or watery stools.
- 2) Testing is **only performed on loose or watery stool** specimens.^{2,3} The UMC microbiology lab will reject any formed stools sent for testing.
- 3) **Repeat Testing to Diagnose CDI**: Multiple studies have demonstrated that repeat stool testing is ineffective for the diagnosis of CDI.⁴⁻⁶ **With rare exception, only one test should be ordered to rule in or out CDI**, given the test's very high negative predictive value.
- 4) **Do not order multiple tests** for *C. difficile* on a single patient (i.e. "*C. diff* x 3") but instead wait for the results of a single test to return before considering whether to test again. (**NOTE**: Once a patient tests positive for *C. difficile*, the laboratory **will not perform repeat testing**.)
- 5) **Repeat stool testing** for test of cure is **NOT** recommended.^{2,3} *C. difficile* toxin may persist despite a clinical response to treatment. In addition, a positive test at the end of a course of therapy does not predict who will develop a recurrence or relapse.
- 6) **Do not test colectomy patients** for *C. difficile* unless infection is strongly suspected.
- 7) Patients for whom a *C. difficile* test is ordered are placed on Contact Precautions. If the test is negative, Contact Precautions can be discontinued provided diarrheal symptoms have resolved. Patients with loose/watery stools with the potential to contaminate the environment should remain on isolation precautions.
- 8) Patients placed on Contact Precautions for *C. difficile* infection stay on isolation until there is no loose stools/diarrhea for 48 hours. Please call Infection Prevention and Control for patients with a prolonged stay (i.e. greater than two weeks) and still on Contact Precautions.
- 9) **External Transfer of *C. difficile* Infected Patients**: On occasion, accepting facilities (e.g. nursing homes, rehabilitation centers) will request 1 or more negative stool tests for *C. difficile* prior to allowing transfer. LTC, Rehab, and LTAC facilities have been notified by UMC that repeat testing for *C. difficile* at the time of discharge will not be performed.
- 10) As infectivity is guided primarily by the presence of symptoms, and many individuals with carriage of *C. difficile* are not at risk for transmission to other persons, such testing is **not recommended**.² Please call Infection Prevention and Control when *C. difficile* testing is requested by a facility. Do not order test for *C. difficile*.
- 11) **All *C. difficile* pending screening orders will be reviewed by the Infection Prevention and Control nursing staff. If the order was submitted by way of the *C. difficile* Standing Delegation Orders AND the criteria for testing are not met, the *C. difficile* screening order will be cancelled.**
- 12) **All *C. difficile* pending screening orders by physician will be reviewed by the Infection Prevention and Control nursing staff AND if the criteria for testing are not met, the ordering physician will be notified so the pending order can be cancelled.**
- 13) **Once the *C. difficile* screening order has been initiated, the stool specimen must be collected within 48 hours of the time the test was ordered. If the patient has not produced a stool specimen within the 48 hour timeframe the order will be cancelled.**

Diagnostic Algorithm for *C. difficile* Infection:



*This guidance is not a substitute for clinical judgment. The suspicion of severe *C. difficile*-associated colitis should prompt initiation of empiric therapy while stool testing is pending.*

References:

1. Peterson LR, Robicsek A. Does my patient have *Clostridium difficile* infection? *Annals of internal medicine* 2009;151(3):176-9.
2. Cohen SH, Gerding DN, Johnson S, et al. Clinical practice guidelines for *Clostridium difficile* infection in adults: 2010 update by the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Diseases Society of America (IDSA). *Infect Control Hosp. Epidemiology* 2010;31(5):431-55.
3. Dubberke ER, Gerding DN, Classen D, et al. Strategies to prevent clostridium difficile infections in acute care hospitals. *Infect Control Hosp. Epidemiology* 2008;29 Suppl 1:S81-92.
4. Aichinger E, Schleck CD, Harmsen WS, Nyre LM, Patel R. Nonutility of repeat laboratory testing for detection of *Clostridium difficile* by use of PCR or enzyme immunoassay. *Journal of clinical microbiology* 2008;46(11):3795-7.
5. Drees M, Snyderman DR, O'Sullivan CE. Repeated enzyme immunoassays have limited utility in diagnosing *Clostridium difficile*. *Eur J Clin Microbiol Infect Dis* 2008;27(5):397-9.
6. Mohan SS, McDermott BP, Parchuri S, Cunha BA. Lack of value of repeat stool testing for *Clostridium difficile* toxin. *The American journal of medicine* 2006;119(4):356 e7-8.

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