POLK MEDICAL CENTER
POLICY AND PROCEDURE MANUAL
ENVIRONMENT OF CARE
Infection Prevention

TITLE: *Clostridium difficile* Diagnostic Stewardship	**Policy No.: P - EC-05-021**
Purpose: To ensure patients are tested appropriately for *Clostridium difficile* to ensure proper diagnosis and treatment.	**Developed Date:** 10/18 **Review Date:** **Revised Date:** **Review Responsibility:** Director of Infection Prevention, Antibiotic Stewardship Committee, ID Consultant, Director of Laboratory Services

References:

1. Georgia Healthcare Associated Infections: Advisory Committee Policy Statement
2. Duke Center for Antimicrobial Stewardship and Infection Prevention. Diagnostic Testing for Clostridium difficile Infection. Published June 2015. https://dicon.medicine.duke.edu/sites/default/files/june2015_dason_newsletter_diagnostic_testing_for_clostridium_difficile_infection_final.pdf
3. University of Michigan, Michigan Medicine. *Clostridium difficile* Infection in Adults and Children. Published December 2016. http://www.med.umich.edu/1info/FHP/practiceguides/InptCDiff/C-Diff.pdf%20
4. Clinical Practice Guidelines for *Clostridium difficile* Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA). *Clinical Infectious Diseases*, Volume 66, Issue 7, 19 March 2018, Pages e1–e48, https://academic.oup.com/cid/article/66/7/e1/4855916

Introduction

Clostridium difficile infection (CDI) is one of the most common causes of healthcare-associated infection (HAI) in community hospitals and early and accurate diagnosis of CDI is paramount to providing optimal care for patients with this infection and decreasing risk of transmission to other hospitalized patients.

Antimicrobial exposure is one of the most important risk factors predisposing to CDI. Use of single dose of any type of antimicrobials in previous 90 days has been associated with CDI. High risk antimicrobials associated with CDI include clindamycin, cephalosporins, ampicillin, fluoroquinolones. Restriction of fluoroquinolones has been most essential due to risk of acquisition of hypervirulent BI/NAP1/027 strain of *C.difficile*. Hospital interventions with use of antimicrobial restriction or antimicrobial stewardship practice will help reduce incidence of CDI.

1. Restriction of antimicrobial agents associated with high risk for CDI is an important strategy to reduce exposure to these agents.

2. From stewardship aspect, monitoring appropriate indications for antimicrobial use and avoiding use of unnecessary antimicrobial agents is crucial to reduce incidence of CDI.

3. Another stewardship practice includes verification of appropriate treatment of CDI based on severity. If applicable, avoidance of use of concomitant non-CDI antimicrobial agents during CDI treatment.

Clinical Evaluation

The primary method to determine if a patient may have *Clostridium difficile* infection (CDI) is a clinical evaluation. Clinical evaluation is used to determine if laboratory testing for CDI is appropriate.

1. Do not test asymptomatic patients for CDI.

2. Only test patients who are clinically likely to have CDI. Patient has 3 or more unformed, diarrheal stools in a 24 hour period without an underlying condition (inflammatory colitis, constipation with overflow diarrhea) or therapy (stool softeners/laxatives, chemotherapy, enteral feeding, oral contrast).

3. Only perform diagnostic tests on diarrheal stool specimens. Diarrheal stools are those that take the shape of the container.

4. Do not repeat testing during the same episode of diarrhea.

5. Do not perform test of cure as the assay may be positive after clinical cure.

6. Consult a pediatric specialist before testing children under 2 years of age.

7. On the rare occasion where an ileus due to *C. difficile* (which occurs in less than 1% of CDI cases) is suspected, the provider must specifically request testing on a formed stool specimen via verbal communication with lab personnel prior to specimen submission.

Laboratory Rejection Rules for Stool Specimens Sent for *Clostridium difficile NAAT*

1. Formed stool
2. Hard stool
3. Swab specimens
4. Patient has positive NAAT within last 14 days

Recommended laboratory test

Nucleic acid amplification test (NAAT)

Consider using laboratory results indicating colonization to implement infection prevention strategies, such as contact precautions. Colonized patients are those who have tested positive for the *Clostridium difficile* organism or genome, but do not have clinical symptoms. These patients may have a role in *Clostridium difficile* transmission.

Inpatient Treatment Recommendations

Clinical Definition	Supportive Clinical Data	Recommended Treatment
Initial episode, non-severe[1]	Leukocytosis with WBC < or = 15000 cells/mL and serum creatinine < 1.5 mg/dL	Vancomycin 125 mg orally 4 times daily for 10 days
Initial episode, severe (GI and/or ID consultation recommended)	Leukocytosis with WBC > or = 15000 cells/mL or a serum creatinine > 1.5 mg/dL	Vancomycin 125 mg orally 4 times daily 10 days **OR** Fidaxomicin 200 mg twice daily for 10 days
Initial episode, fulminant (GI and/or ID consultation recommended)	Hypotension or shock, ileus, megacolon	Vancomycin 500 mg orally 4 times daily or by nasogastric tube. If ileus, consider adding rectal instillation of vancomycin. IV metronidazole (500 mg every 8 hours) should be given together with PO or rectal vancomycin particularly if ileus is present.
First Recurrence	If metronidazole used initially	Vancomycin 125 mg orally 4 times daily for 10 days
	If vancomycin used initially	Fidaxomicin 200 mg twice daily for 10 days **OR** vancomycin pulsed-tapered regimen[2]
Second and subsequent recurrences	(GI and/or ID consultation recommended)	As prescribed by GI or ID

[1] Metronidazole (alone) should only be used when vancomycin or fidaxomicin are unavailable
[2] Vancomycin pulsed-tapered regimen available for selection in **MED Clostridium difficile (C.diff) Order set** in Cerner Powerchart.

Vancomycin Pulsed-tapered regimen:

125 mg orally 4 times daily for 14 days,
then 125 mg twice daily for 7 days,
then 125 mg once daily for 7 days,
then 125 mg every other day for 2 weeks