

First Episode *Clostridium* difficile Infection (CDI) Management Algorithm







Click orange buttons to navigate protocol.

Index: CDI Management Algorithm

Objective of the CDI Management Algorithm:

This algorithm has been developed with an interdisciplinary approach combined with antimicrobial stewardship strategies to act as a guideline for clinicians to intervene promptly, standardize care, and ensure appropriate monitoring of *C. difficile* patients.

Outlines the steps involved in the initial care of a CDI patient.

Best practice treatment guidelines for antibiotic therapy.

Outlines discipline specific care of patients with a positive CDI result.

Outlines discipline specific patient monitoring strategies.

An assessment tool that assists in determining the patient's treatment.

Summarizes the algorithm and assists in determining if the patient is responding to therapy.

CDI algorithm associated links:

- CDI algorithm FAQs
- CDI algorithm e-learning at Mt. Sinai Hospital
- CDI algorithm e-learning at the University Health Network









1. *C. difficile* is Suspected



Charge nurse/patient care coordinator to ensure algorithm is initiated and followed

1 Initiate contact precautions

Order *C. difficile* toxin assay

Primary physician or delegate to consider prior to test result if symptoms suggestive of severe or complicated/fulminant disease

What is *C. difficile* test result?



Negative

Not Available

Positive/Indeterminate

C. difficile is unlikely

Primary physician or delegate to consider Gastroenterology and Infectious Disease consult Unable to obtain sample within 6 hours

C. difficile not ruled out

Primary nurse to notify primary physician or delegate that C. difficile sample is not able to be obtained and discuss plan of care Primary nurse to:

- notify primary physician or delegate
- notify charge nurse/patient care coordinator
- implement additional precautions if not already implemented

Primary physician or delegate to consider Gastroenterology and Infectious Disease consult for indeterminate cases

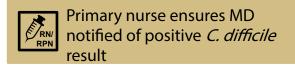








2a. Patient Assessment





MD or delegate to ensure severity assessment is completed within 2 hours of positive *C. difficile* result, and appropriate treatment started within 4 hours.

If *C. difficile* test result is positive



Primary Physician or Delegate

- 1 Complete history and physical exam
- 2 Discontinue/reassess current antimicrobials
- 3 Discontinue/reassess narcotics, bowel regimen, proton pump inhibitors/H2 receptor antagonists and antiperstaltic agents
- Order baseline CBC, electrolytes, creatinine, lactate, albumin if not available
- **5** Assess patients' severity



Primary Nurse

- 1 Obtain baseline set of vital signs
- 2 Complete ongoing accurate stool charting including stool frequency and consistency
- 3 Ensure education of patient and family







2b. *C. difficile* Severity Criteria

☐ Age greater than 65	
Immunosuppression (e.g. neutropenia, solid organ or stem cell transplantation, HIV with CD4 lymphocyte count	less
than 50 x 10 ⁶ /L, systemic corticosteroids with equivalent of prednisone 20 mg daily	
☐ Temperature greater than 38°C	
☐ Increase in serum creatinine greater than 50% from baseline OR significantly reduced urine output	
\square White blood cell (WBC) count greater than 15 x 10 9 /L	
☐ Albumin less than 30 g/dL	
Abdominal examination consistent with peritonitis	



Severity

Mild to Moderate Disease

Patient has less than 2 severity criteria



Patient is hemodynamically stable with no signs of shock*

Severe Disease

Patient has 2 or more severity criteria



Patient is hemodynamically stable with no signs of shock*

Complicated/Fulminant Disease

Patient is hemodynamically unstable or has signs of shock*



Patient has ileus or toxic megacolon

* Shock: SBP less than 90 mm Hg or SBP decrease greater than 40 mm Hg from baseline, urine output less than 0.5 mL/kg/h, decreased level of consciousness, serum lactate greater than 2 mmol/L







3. *C. difficile* Treatment by Severity



MD or delegate to prescribe treatment based on severity of disease assessment



Primary nurse to administer medication within 4 hours

Mild/Moderate Disease

Treatment

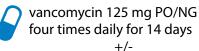


metronidazole 500 mg PO/NG three times daily for 14 days

*IV if unable to take enteral medication, PO/NG is preferred

Severe Disease

Treatment





metronidazole 500 mg IV Q8H 1-14 days

Specialist Consultation



Primary physician or delegate may consider specialist consultation:

- General Surgery
- Infectious Diseases

3 Tests



Consider CT scan to assess for C. difficile infection

Complicated/ **Fulminant** Disease

Treatment



vancomycin 125 mg PO/NG four times daily for 14 days AND

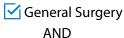


metronidazole 500 mg IV Q8H for up to 14 days

Specialist Consultation



Primary physician or delegate must consult both:





✓ Infectious Diseases

3 Tests



CT scan strongly recommended to assess for *C. difficile* infection



If a palliative care is being considered, steps 1-3 may not be appropriate. Consider Palliative Care consult



Where applicable please complete Exceptional Access Program (EAP) documentation for PO vancomycin prior to patient discharge







4. Daily Monitoring

Primary Physician or Delegate **Primary Nurse** Complete daily assessment Complete abdominal (including assessment of assessment daily response to treatment and abdominal exam) Complete ongoing accurate stool charting including stool frequency and consistency 2 Order: ■ Vital Signs with appropriate frequency ■ Complete blood count (CBC), electrolytes, creatinine, lactate and Document accurate input and albumin output Accurate intake and output monitoring Consider Registered Dietitian consult Reconsider diagnosis if rapid improvement of symptoms occurs within 24 hours







5. Patient Response to Treatment

