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.

1. C. difficile is suspected
   Outlines the steps involved in the initial care of a CDI patient.

2a. Patient assessment
   Outlines discipline specific care of patients with a positive CDI result.

2b. C. difficile Severity Criteria
   An assessment tool that assists in determining the patient’s treatment.

3. C. difficile Treatment by Severity
   Best practice treatment guidelines for antibiotic therapy.

4. Daily Monitoring
   Outlines discipline specific patient monitoring strategies.

5. Patient Response to 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

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
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<tbody>
<tr>
<td>1</td>
<td>Initiate contact precautions</td>
</tr>
<tr>
<td>2</td>
<td>Order <em>C. difficile</em> toxin assay</td>
</tr>
<tr>
<td>3</td>
<td>Primary physician or delegate to consider empiric therapy prior to test result if symptoms suggestive of severe or complicated/fulminant disease</td>
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</table>

What is *C. difficile* test result?

- **Negative**: *C. difficile* is unlikely
  - Primary physician or delegate to consider Gastroenterology and Infectious Disease consult

- **Not Available**: 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

- **Positive/Indeterminate**: Primary physician or delegate to consider Gastroenterology and Infectious Disease consult for indeterminate cases
  - Primary nurse to notify primary physician or delegate that *C. difficile* sample is not able to be obtained and discuss plan of care
  - Notify charge nurse/patient care coordinator
  - Implement additional precautions if not already implemented

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

Risk Factors for CDI

Continue to next page
2a. Patient Assessment

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 antiperistaltic agents
4. 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

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Primary nurse ensures MD notified of positive *C. difficile* result
MD or delegate to ensure severity assessment is completed within 2 hours of positive *C. difficile* result, and appropriate treatment started within 4 hours.
2b. *C. difficile* Severity Criteria

### 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

**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**: vancomycin 125 mg PO/NG four times daily for 14 days
  - +/- metronidazole 500 mg IV Q8H 1-14 days
- **Specialist Consultation**: Primary physician or delegate may consider specialist consultation:
  - General Surgery
  - Infectious Diseases
- **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:
  - General Surgery
  - AND
  - Infectious Diseases
- **Tests**: CT scan strongly recommended to assess for *C. difficile* infection
- **Palliative approach**: 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**

1. Complete daily assessment (including assessment of response to treatment and abdominal exam)

2. Order:
   - **☐** Vital Signs with appropriate frequency
   - **☐** Complete blood count (CBC), electrolytes, creatinine, lactate and albumin
   - **☐** Accurate intake and output monitoring
   - **☐** Consider Registered Dietitian consult

3. Reconsider diagnosis if rapid improvement of symptoms occurs within 24 hours

**Primary Nurse**

1. Complete abdominal assessment daily

2. Complete ongoing accurate stool charting including stool frequency and consistency

3. Document accurate input and output

Go to 4. Patient Response to Treatment
5. Patient Response to Treatment

Is patient responding to treatment?

Yes

Continue current treatment

Ongoing monitoring

No

Assess the following:

Patient deteriorating at any time
OR
Patient is failing to respond to therapy by end of day 4*, if any of the following:

- Frequency and volume of loose bowel movements by the end of day 4 (end of day 2 for immunocompromised patients)
- Fever greater than 38°C by the end of day 2
- High white blood cell (WBC) count greater than 15 x 10⁹/L
- Worsening symptoms/deteriorating at any point

* for immunocompromised patients reassessment for response to treatment should be completed at the end of day 2

Consult both:

- General Surgery
- Infectious Diseases

Reassess severity

Severity Assessment

3. C. difficile Treatment by Severity
4. Daily Monitoring