

CLINICAL PATHWAY:

Suspected *Clostridioides difficile* (*C. difficile*) Infection Evaluation and Management

THIS PATHWAY
SERVES AS A GUIDE
AND DOES NOT
REPLACE CLINICAL
JUDGMENT.

Inclusion Criteria:

Suspected *Clostridioides difficile* (*C. difficile*) infection due to:

- (1) prolonged or worsening diarrhea (at least 3 liquid stools in 24 hours; see [Appendix A](#)) **AND**
- (2) risk factors for *C. difficile* infection (antibiotics in prior 3 months, hospitalization in prior 3 months, immunocompromised patients due to chemotherapy/humoral immunodeficiency/solid organ transplant, chronic inflammatory bowel disease, G-tube or J-tube need, use of acid suppressive therapies – PPI or H2 blockers, prior *C. difficile* infection, or at the discretion of the provider)

Exclusion Criteria:

Soft or formed stools (see [Appendix A](#)), <3 liquid stools in 24 hours (*testing for C. difficile is NOT recommended in these cases*)

Place on Contact Precautions. Only send *C. difficile* testing if criteria met (see below).

Clinical Evaluation:

- When evaluating for possible *C. difficile* infection, note the age of the patient, number of liquid stools in the last 24 hours, presence of risk factors for *C. difficile* infection, relevant symptoms (e.g., abdominal pain, cramps, fever), vitals, WBC, and presence of tube feedings
- Vomiting is not characteristic of *C. difficile* infection and may signify an alternative diagnosis (e.g., viral gastroenteritis)
- Studies have shown that there is no characteristic odor of stool from patients with *C. difficile*

Considerations for testing for *C. difficile*:

- <1 years of age: Represents colonization
 - DO NOT test; treating for *C. difficile* is not indicated
- 1-2 years of age: High likelihood of colonization; in rare circumstances, *C. difficile* infection may be possible – consider consulting Infectious Diseases
 - Evaluate/empirically treat for other infectious/non-infectious causes before testing for *C. difficile*
 - Add fiber to the formula of tube-fed patients
 - Stop medications associated with diarrhea (see [Appendix A](#)); laxatives/stool softeners should be stopped at least 48 hours prior to testing
- >2 years of age:
 - Test ONLY if patient has not received laxatives or other medications associated with diarrhea (or diarrhea persists after 48 hours of stopping the medication) **AND** if no alternative reason for diarrhea exists (see [Appendix A](#) for examples of medications)

Confirmed *C. difficile* infection:

- Testing algorithms may differ by lab – refer to the individual lab interpretation of results to determine if *C. difficile* infection exists [the test must include a positive toxin assay: PCR and/or enzyme assay (e.g., EIA)].
- Repeat testing of the same episode is NOT recommended.

Initial Disease

(1st episode, or repeat episode
>8 weeks from prior
episode)

Recurrent Disease

(repeat episode ≤8 weeks from prior
episode)

Treatment Options

Non-Severe Infection:

[diarrhea may contain some blood, WBC and Scr normal for age]

- <18 yrs old:
 - Vancomycin PO:** 10 mg/kg/dose QID (max 125 mg/dose) **or**
 - Metronidazole PO:** 7.5 mg/kg/dose TID (max 500 mg/dose) x10 days
- ≥18 yrs old:
 - Preferred: **Fidaxomicin** 200 mg/dose BID x10 days
 - Alternatives:
 - Vancomycin PO:** 10 mg/kg/dose QID (max 125 mg/dose) **or**
 - Metronidazole PO:** 7.5 mg/kg/dose TID (max 500 mg/dose) x10 days
 - If no improvement within 5-7 days: considered treatment failure. Follow guidelines under "Recurrent Disease".

Severe Infection:

[ill-appearing, diarrhea usually bloody, elevated WBC likely due to *C. difficile*]

- If <18 years old: **Vancomycin PO:** 10 mg/kg/dose QID (max 125 mg/dose) x10 days
- If ≥18 years old:
 - Preferred: **Fidaxomicin** 200 mg/dose BID x10 days
 - Alternative: **Vancomycin PO:** 10 mg/kg/dose QID (max 500 mg/dose) x10 days
- If no improvement within 5-7 days: consult GI and Infectious Diseases

Fulminant Infection:

[hypotension/shock due to *C. difficile*, ileus, mega colon; adults with serum lactate ≥5 mmol/L and peripheral WBC ≥50,000 had higher rates of mortality]

- Metronidazole IV:** 7.5 mg/kg/dose q8hr (max 500 mg/dose) **and**
- Vancomycin PO** 10 mg/kg/dose QID (max 500 mg/dose) **and/or**
Vancomycin PR 4x/day via retention enema (through foley catheter clamped for 30-60 min retention time)
 - Do not use PR vancomycin if neutropenic
 - 1-4 yrs old: 250 mg in 50 mL normal saline
 - 4-11 yrs old: 375 mg in 75 mL normal saline
 - ≥12 yrs old: 500 mg in 100 mL normal saline
- Duration of treatment: 10 days
- Consults:
 - GI and Infectious Diseases
 - Consider Surgery consultation as needed

Treatment Options

[See disease severity under "Initial Disease" for clarification.]

1st recurrence:

- <18 yrs old:
 - Metronidazole PO** 7.5 mg/kg/dose TID (max 500 mg/dose) x10 days **or**
 - Vancomycin PO** 10 mg/kg/dose QID (max 125 mg/dose for non-severe infection; max 500 mg/dose for severe and fulminant infection) x10 days
- If ≥18 years old:
 - Preferred: **Fidaxomicin** 200 mg/dose BID x10 days
 - Alternative: **Vancomycin PO** (max 125 mg/dose for non-severe infection; max 500 mg/dose for severe and fulminant infection) x10 days

If second or more recurrence:

- Consult GI and Infectious Diseases
- If <18 years old:
 - Begin **Vancomycin with taper:** Vancomycin PO 10 mg/kg/dose QID (max 125 mg/dose for non-severe/severe infection, max 500 mg/dose for fulminant infection) x10 days **followed by taper**
 - Example of a vancomycin taper:**
 - Vancomycin PO 10 mg/kg/dose (max 125 mg/dose) BID x7 days **followed by**
 - Vancomycin PO 10 mg/kg/dose (max 125 mg/dose) once daily for 7 days **followed by**
 - Vancomycin PO 10 mg/kg/dose (max 125 mg/dose) every 2-3 days for 2-8 weeks as directed by GI
- If ≥18 years old:
 - Preferred: **Fidaxomicin** 200 mg/dose BID x10 days
- If failure with above:
 - Consider options such as vancomycin + rifaximin, vancomycin + nitazoxanide, fidaxomicin, or fecal microbiota transplantation in consultation with GI and ID

Discharge Criteria: clinically stable, cleared by GI (and surgery/Infectious Diseases, if involved), ensure availability and insurance coverage of medication prior to discharge

Discharge Instructions: follow up with PCP and/or GI (if involved in hospitalization)

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Appendix A: Bristol Stool Chart and Medications That Can Cause Diarrhea

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Bowel Consistency – Bristol Stool Chart

FORMED	1		Separate hard lumps, like nuts (hard to pass)
	2		Sausage-shaped but lumpy
	3		Like a sausage but with cracks on its surface
SOFT	4		Like a sausage or snake, smooth and soft
	5		Soft blobs with clear-cut edges
LIQUID	6		Fluffy pieces with ragged edges, a mushy stool
	7		Watery, no solid pieces, entirely liquid

Examples of Medications That Can Cause Diarrhea

- Laxatives:
 - Lactulose, bisacodyl, magnesium citrate, docusate, Go-lytely, Senna, polyethylene glycol, sorbitol, etc.
- Enemas and suppositories
- Others:
 - Kayexalate
 - Colchicine
 - Octreotide
 - Metformin and other diabetic medications
 - Antibiotics
 - Antineoplastics
 - Magnesium containing antacids