Clostridioides difficile Infection (CDI)

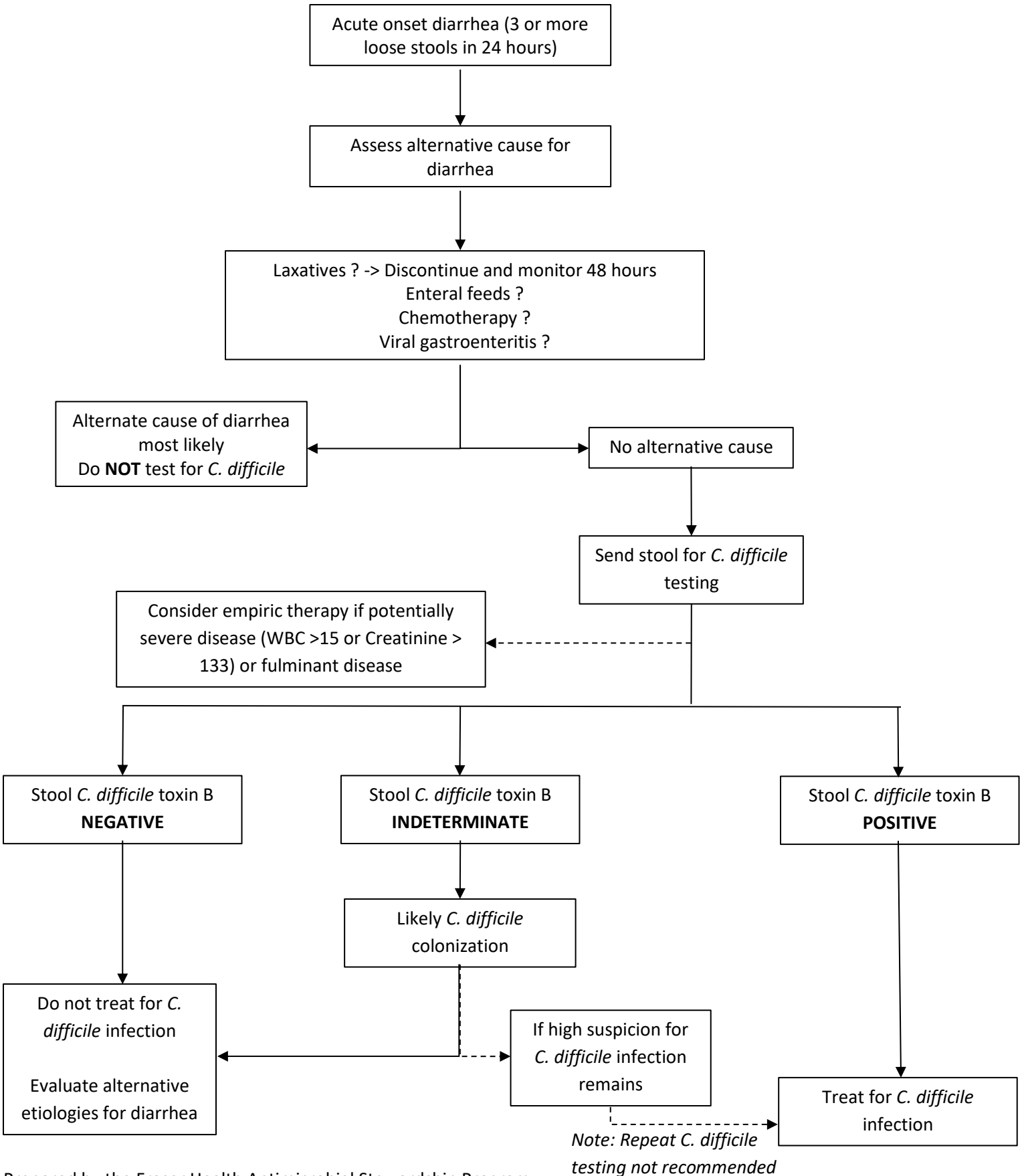
LAB TESTING

- Two-step testing algorithm is used for *C. difficile*
  - Molecular assay for *C. difficile* toxin B gene – highly sensitive for presence of toxigenic *C. difficile*
  - Immunoassay for *C. difficile* toxin A/B protein – improves specificity for active toxin production
- *C. difficile* toxin B POSITIVE: both molecular testing for *C. difficile* toxin B gene and immunoassay for toxin protein are positive.
- *C. difficile* toxin B INDETERMINATE: molecular testing for *C. difficile* toxin B gene positive but negative toxin protein immunoassay.

DIAGNOSIS

C. difficile colonization	Up to 10% of the population asymptomatically carries toxigenic *C. difficile* – this does not require any treatment. Typically identified by positivity for *C. difficile* toxin B gene but negative toxin protein immunoassay (*C. difficile* toxin B INDETERMINATE).
Suspected CDI	Acute onset diarrhea (3 or more loose stools in 24 hours) above patient's baseline and not attributed to another cause. • Send stool for *C. difficile* testing • Consider starting empiric treatment if potentially severe disease (WBC greater than 15 or creatinine greater than 133) or fulminant disease
Confirmed CDI	Acute onset diarrhea (3 or more loose stools in 24 hours) above patient's baseline and not attributed to another cause. **AND ANY ONE OF:** • Stool *C. difficile* toxin B POSITIVE • Pseudomembraneous colitis on endoscopy or histopathology **Note:** While stool *C. difficile* toxin B INDETERMINATE may represent infection in this context, other causes of diarrhea should also be evaluated.

DECISION SUPPORT ALGORITHM



TREATMENT

Classification		**Duration (days)**
***C. difficile* colonization**	No therapy needed	**-**
INSTITUTE **CONTACT PRECAUTIONS PLUS** FOR ANY SUSPECTED OR CONFIRMED CDI CASE		
Initial Episode CDI *Not meeting criteria for fulminant CDI*	**vancomycin** 125 mg PO/NG QID Alternate treatment option for non-severe CDI only (e.g., WBC less than 15 and creatinine less than 133): **metroNIDAZOLE** 500 mg PO/NG TID	**10**
Fulminant CDI *Any of:* • *Ileus* • *Toxic megacolon* • *Perforation* • *Hypotension* • *Shock*	Consider Infectious Diseases, General Surgery, and ICU consultation. **vancomycin** 500 mg PO/NG QID AND **metroNIDAZOLE** 500 mg IV q8h If ileus present, consider ADDING: **vancomycin** 500 mg in 100 mL normal saline q6h as retention enema	**10** *Patients with delayed response may require up to 14 days*
Recurrent CDI	Consider Infectious Diseases consultation. If initial CDI episode treated with metroNIDAZOLE: **vancomycin** 125 mg PO/NG QID for 10 days Otherwise: Complete **vancomycin** 125 mg PO/NG QID for 10-14 days, then **vancomycin taper and pulse regimen** (e.g., **vancomycin** 125 mg BID for 7 days, then daily for 7 days, then every 2 days for 8 days, then every 3 days for 15 days)	

Probiotics (i.e. *Lactobacillus*) or **cholestyramine** are NOT recommended as adjunctive treatment for or prevention of recurrent CDI as evidence regarding their efficacy is unclear.

Infectious Diseases consultation should be considered for patients who have other infections requiring concomitant antibiotics in setting of *C. difficile* infection.

Fidaxomicin is a recommended treatment option, in addition to vancomycin, in AMMI Canada and IDSA/SHEA *C. difficile* management guidelines. Fidaxomicin is excluded from hospital formulary. However, fidaxomicin may be used in exceptional circumstances for hospitalized patients. Infectious Diseases or Gastroenterology consultation is recommended if fidaxomicin is being considered. Fidaxomicin is covered by BC PharmaCare Special Authority for those who meet criteria; cost can be a significant barrier to completing therapy for discharged patients.