Infectious Diarrhea Testing Algorithm

**INDICATIONS FOR TESTING**

Diarrhea with suspected infectious etiology

**PERFORM**

Clinical evaluation

**ORDER**

- Clostridioides difficile testing if diarrhea onset is >3 days after admission
- Bacterial stool culture
- C. difficile testing
- PCR testing for gastrointestinal parasites
- PCR testing for gastrointestinal pathogens
- PCR testing for microsporidia

**If testing is indicated (eg, known exposures, epidemiologic purposes), consider any or all of the following based on clinical setting:**

- Bacterial stool culture
- C. difficile testing
- PCR testing for gastrointestinal parasites

**Hospitalized adult**

- Chronic diarrhea
  - ORDER PCR testing for gastrointestinal parasites
  - Negative
  - PERFORM Ova and parasites examination (3-5 specimens collected during 7-day period, preferably at different times of day) AND Cryptosporidium and Coccidia fecal exam on same stool sample if Cystoisospora belli is suspected

- Acute diarrhea
  - ORDER PCR testing for gastrointestinal parasites
  - Negative
  - No testing indicated; treat empirically

**Returned traveler or immigrant**

**Immunocompromised adult**

**Complicated clinical course**

- Advanced age (>65 yrs)
- Comorbidities (eg, heart failure, DM, CKD)
- Dysentery or bloody stools

**ORDER**

- PCR testing for gastrointestinal pathogens
  - AND
  - PCR testing for microsporidia

**Yes**

- Risk factors for C. difficile
  - Yes
  - ORDER C. difficile testing
  - Negative
  - No stool testing indicated

**No**

- Diarrhea duration >14 days

**ORDER**

- PCR testing for gastrointestinal parasites

**Yes**

- ORDER PCR testing for gastrointestinal pathogens

**No**

- ORDER PCR testing for gastrointestinal parasites

**Healthy pediatric patient**

- Adult in primary care
  - No stool testing indicated
  - ORDER PCR testing for gastrointestinal pathogens

**Hospitalized adult**

- Returned traveler or immigrant

**Immunocompromised adult**

**Complicated clinical course**

- Advanced age (>65 yrs)
- Comorbidities (eg, heart failure, DM, CKD)
- Dysentery or bloody stools

**ORDER**

- PCR testing for gastrointestinal pathogens
  - AND
  - PCR testing for microsporidia

**Yes**

- Risk factors for C. difficile
  - Yes
  - ORDER C. difficile testing
  - Negative
  - No stool testing indicated

**No**

- Diarrhea duration >14 days

**ORDER**

- PCR testing for gastrointestinal parasites

**Yes**

- ORDER PCR testing for gastrointestinal pathogens

**No**

- ORDER PCR testing for gastrointestinal parasites

**Abbreviations**

- CKD: Chronic kidney disease
- DM: Diabetes mellitus
- ETEC: Enterotoxigenic E. coli
- PCR: Polymerase chain reaction
- STEC: Shiga toxin-producing E. coli

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*See the Clostridioides (Clostridium) difficile Infection Testing algorithm for more information.*

*Parasites may include Giardia lamblia/intestinalis/duodenalis, Cryptosporidium, Cyclospora cayetanensis, Dientamoeba fragilis, and Entamoeba histolytica.*

*Pathogens may include: C. jejuni, C. coli, C. upsaliensis, C. difficile, P. shigelloides, Salmonella spp., V. parahaemolyticus, V. vulnificus, V. cholerae, Y. enterocolitica, Enteroraggregative E. coli, Enteropathogenic E. coli, ETEC stx1/stx2, Shigella/Enteroinvasive E. coli, Cryptosporidium spp., C. cayetanensis, E. histolytica, G. lamblia, Adenovirus F40/41, Astrovirus, Norovirus GI/GII, Rotavirus A, and Sapovirus (Genogroups I, II, IV, and V).*

*Microsporidia may include: Encephalitozoon intestinalis, Encephalitozoon hellem, and Encephalitozoon cuniculi.*