



INFECTIOUS DISEASES SOCIETY OF AMERICA EMERGING INFECTIONS NETWORK QUERY:

Pediatric Asymptomatic *C. difficile* Carriage

With increasing recognition of asymptomatic *Clostridium difficile* carriage among several infant and non-infant pediatric populations, questions have risen regarding whether screening for carriage plays a role in *C. difficile* infection (CDI) prevention. Although there are no current recommendations regarding testing, management, or benefit of infection control measures for such patients, there are anecdotal reports of practice variation.

The purpose of this survey is to understand current practices regarding pediatric patients with asymptomatic *C. difficile* carriage.

If you see pediatric patients at more than one institution, please respond based on your experience with your primary hospital (the institution at which you spend the most time).

References:

- Longtin Y, Paquet-Bolduc B, Gilca R, et al. Effect of detecting and isolating *Clostridium difficile* carriers at hospital admission on the incidence of *C difficile* infections: a quasi-experimental controlled study. *JAMA Intern Med* 2016;176:796–804.
- Hourigan SK, Chirumamilla SR, Ross T, et al. *Clostridium difficile* carriage and serum antitoxin responses in children with inflammatory bowel disease. *Inflamm Bowel Dis* 2013;19(13):2744-52.
- Dominguez SR, Dolan SA, West, K, et al. High colonization rate and prolonged shedding of *Clostridium difficile* in pediatric oncology patients. *Clin Infect Dis* 2014;59(3):401-3.
- Leibowitz J, Soma VL, Rosen L, et al. Similar proportions of stool specimens from hospitalized children with and without diarrhea test positive for *Clostridium difficile*. *Pediatr Infect Dis J* 2015;34(3):261-6.

Thank you for completing this survey. Please fax to 319-384-8860.

EMERGING INFECTIONS NETWORK QUERY
Pediatric Asymptomatic *C. difficile* Carriage

Name: _____

1. What test(s) are used to diagnose CDI in your primary hospital? [Select all that apply]

Single test

- C. difficile* included in a GI panel of multiple pathogens (e.g. Biofire)
- Nucleic acid amplification test (NAAT) only, e.g. PCR or LAMP
- Enzyme immunoassay (EIA) for toxin only
- Combined EIA for glutamate dehydrogenase (GDH) assay and toxin
- Toxigenic culture (*C. difficile* culture followed by detection of toxins)

Multi-step algorithm

- GDH EIA followed by cell cytotoxicity neutralization assay or toxin EIA (if GDH positive)
- GDH EIA followed by NAAT (if GDH positive)
- NAAT followed by EIA for toxin (if NAAT positive)
- Combined GDH/toxin EIA, followed by NAAT for discrepant results
- Other, *specify*:
- Not sure

2. Does your primary hospital restrict *C. difficile* testing only to unformed stools? Yes No

3. Does your primary hospital have age restrictions for *C. difficile* testing?

- Yes, we only test stools from children > _____ months of age [*Please specify age in months*]
- No, we do not have age restrictions for *C. difficile* testing

4. Which of the following statements applies to your institution's use of a multiplex GI PCR panel?

- We do not use a multiplex PCR panel to diagnose any GI pathogens
- We use panel only for non-*C. difficile* pathogens; *C. difficile* results are always suppressed
- We suppress the *C. difficile* result unless *C. difficile* testing is specifically requested by the clinician
- We report the *C. difficile* result from this panel even if *C. difficile* testing is not requested
- Not sure

5a. Are patients in your NICU tested for *C. difficile*? [Select all that apply]

- Yes, NICU patients may be tested for *C. difficile* asymptomatic carriage
- Yes, NICU patients may be tested for CDI (i.e. diarrheal illness caused by *C. difficile*)
- No, patients in the NICU are not tested for *C. difficile*
- Not applicable- there is not a NICU where I work

b. If yes, how are NICU patients testing positive managed? [Select all that apply]

- Contact isolation
- Requirement for single patient room or patient cohorting
- Antibiotic treatment to eradicate *C. difficile* carriage
- Antibiotic treatment for CDI (i.e., diarrheal illness caused by *C. difficile*)

6. In your primary hospital, are pediatric patients tested for asymptomatic carriage of *C. difficile*?

- Yes, we test children for carriage irrespective of age
- Yes, we only test infants for carriage
- Yes, we only test non-infant children for carriage
- No, we do not test any patients for asymptomatic carriage- **STOP HERE. Thank you.**

Thank you for completing this survey. Please fax to 319-384-8860.

- 7. What type(s) of patients are tested for asymptomatic carriage?** [Select all that apply]
- Malignancy or bone marrow transplant patient
 - Other immunodeficiency (e.g., patient with organ transplant or primary immunodeficiency patient)
 - Inflammatory bowel disease (IBD) or other non-IBD gastrointestinal conditions
 - Recent history of CDI
 - Other, *specify*:
 - Not sure

- 8. Do any of the following actions occur when asymptomatic carriage of *C. difficile* is detected?** [Select all that apply]
- Gloves required prior to patient contact
 - Gowns required prior to patient contact
 - Requirement for single patient room
 - Patient cohorting
 - Bedside commode or dedicated toilet facilities
 - Enhanced environmental cleaning (e.g., frequency and/or type of disinfectant)
 - Antibiotic treatment to eradicate *C. difficile* carriage and/or prevent CDI
Specify which antibiotic is most commonly prescribed:
 - Administration of probiotics
 - None of the above
 - Other, *specify*:
 - Not sure

- 9. What actions are taken if a known asymptomatic carrier subsequently develops diarrhea?** [Select all that apply]
- Repeat *C. difficile* testing
 - Empiric CDI treatment without repeat testing
 - Depends on suspicion of other causes of diarrhea
 - Other, *specify*:

- 10a. Are asymptomatic carriers reported to the National Healthcare Safety Network (NHSN)?**
- Yes No Not sure

- b. If YES, WHEN are asymptomatic carriers reported to NHSN?**
- While asymptomatic
 - Whenever they become symptomatic
 - Not sure

11. Additional comments about this survey or about asymptomatic carriage and testing: