2018 Clostridium difficile (C. difficile) Laboratory Practice Survey

INTRODUCTION

Form Approved
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Purpose of the Survey: This survey is being performed for the Centers for Disease Control and Prevention (CDC) and the American Society for Microbiology (ASM) to understand laboratories' current microbiological practices related to improving diagnosis and management of patients with *Clostridium difficile* (*C. difficile*) infection. This survey will take approximately 20 minutes to complete.

Security Information: All information collected in this survey will be kept in a secure manner. We ask you to include your CLIA number to ensure that only one response/paired response per laboratory is recorded. We also ask you to include your email address to follow-up if needed. Your CLIA number and email address will not be stored in a database and they will not be linked to your survey responses. Your IP address will NOT be retained.

Participation is voluntary; you are free to withdraw from this survey at any time. If at any point you do not want to continue, you can simply leave this website. If you do not click on the “done" button at the end of the survey, your answers and participation will not be recorded.

Asterisks (*): Questions marked with an asterisk require an answer before you can proceed to the next question.

How the findings will be used: The results from the survey will be compiled and shared in aggregate as a learning tool, presented at professional conferences, and potentially published in a professional journal in the field of laboratory science.

Contact Information: If you have concerns or questions about this survey please address them to clinmicro@asmusa.org.

Agreement: By beginning the survey, you acknowledge that you have read this information and agree to participate in this survey, with the knowledge that you are free to withdraw your participation at any time without penalty.

Public reporting burden of this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30333; ATTN: PRA (0920-1096).

Thank you for taking the time to complete this CDC and ASM survey. Your feedback is important for guiding CDC and ASM in their efforts to understand current laboratory *C. difficile* practice. The survey should take approximately 20 minutes of your time. All answers will remain completely anonymous.

*** 1. Position/Title of Person Completing Survey:**

*** 2. Email address:**

*** 3. Laboratory Name:**

*** 4. How did you learn about this survey?**

- ◯ Laboratory Response Network Request
- ◯ ClinMicroNet
- ◯ DivCNet
- ◯ Clinical and Public Health Microbiology Newsletter
- ◯ *Microcosm*, ASM's monthly news magazine
- ◯ Laboratory Outreach Communication System (LOCS)
- ◯ Other (please specify)

*** 5. Were you aware of the ASM-CDC published guideline "A Laboratory Medicine Best Practices Systematic Review and Meta-Analysis for the Laboratory Diagnosis of *Clostridium difficile"* before receiving this survey?**

- ◯ Yes
- ◯ No

*** 6. CLIA #**

*** 7. Did someone from your laboratory complete the initial *C. difficile* survey in 2016?**

- ◯ Yes
- ◯ No
- ◯ Do not know

8. Today's date:

12/05/2015

MM/DD/YYYY

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DEMOGRAPHICS

*** 9. Which of the following best describes your laboratory setting? (Select the best choice.)**

- ○ University Hospital
- ○ Academic/Teaching Medical Center (includes association with a medical school and residency training program)
- ○ City/County/State Hospital
- ○ Military/VA Hospital
- ○ Community Hospital/Health System (non-federal, short term general hospital)
- ○ Specialty Hospitals (e.g., women's, eye, heart, orthopaedic)
- ○ Other type of hospital that is not listed above
- ○ Independent Laboratory/Reference Laboratory
- ○ Public Health Department, non-hospital
- ○ Physician Office/Ambulatory Care Laboratory
- ○ Other (please specify)

*** 10. How would you characterize your institution?**

- ○ For profit
- ○ Non-profit

11. How many pathologists or other physicians provide direct oversight in your laboratory? (Do not include residents, fellows or trainees/medical students.)

*** 12. Is your laboratory located in an institution that provides direct patient care?**

- ○ Yes
- ○ No

*** 13. My institution is**

- ◯ hospital based.
- ◯ non-hospital based.

Skip logic: if non-hospital based, skip to question 15.

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DEMOGRAPHICS

*** 14. How many hospital beds does the microbiology section serve?**

- ◯ >1,000 beds
- ◯ 501-1,000 beds
- ◯ 101-500 beds
- ◯ 50-100 beds
- ◯ <50 beds
- ◯ Only have outpatients

*** 15. What kind of patient population is at your institution? (Select all that apply.)**

- [ ] Inpatient
- [ ] Outpatient
- [ ] Other (please specify)

*** 16. What agency accredits your institution? (Select all that apply.)**

- [ ] AABB
- [ ] American Association for Laboratory Accreditation
- [ ] American Osteopathic Association/Healthcare Facilities Accreditation Program (AOA/HFAP)
- [ ] American Society for Histocompatibility and Immunogenetics
- [ ] COLA
- [ ] College of American Pathology
- [ ] Joint Commission
- [ ] Do not know

*** 17. What is your laboratory's zip code?**

*** 18. Are any of your laboratory staff currently members of the American Society for Microbiology (ASM)?**

- ○ Yes
- ○ No
- ○ Do not know

*** 19. Does the microbiology laboratory have a doctoral-level (e.g. Ph.D., M.D., D.O., etc) clinical scientist or consultant?**

- ○ Yes
- ○ No
- ○ Do not know

Skip logic: if no, skip to question 21.

*** 20. What is their board certification (e.g. ABP, ABMM, HCLD, BCLD, ABB, etc.)? (Select all that apply.)**

- [ ] D(ABMM) Diplomate, American Board of Medical Microbiology
- [ ] D(ABB) Diplomate, American Board of Bioanalysis, HCLD (High Complexity Laboratory Director)
- [ ] D(ABB) Diplomate, American Board of Bioanalysis, BCLD (Bioanalyst Clinical Laboratory Director)
- [ ] ABCC – American Board of Clinical Chemistry
- [ ] ABFT – American Board of Forensic Toxicology (limited to individuals with a doctoral degree)*
- [ ] ABHI – American Board of Histocompatibility and Immunogenetics
- [ ] ABIM (American Board of Internal Medicine)
- [ ] ABMGG – American Board of Medical Genetics and Genomics (formerly known as American Board of Medical Genetics (ABMG))
- [ ] D(ABMLI) – American Board of Medical Laboratory Immunology
- [ ] ABP (American Board of Pathology) boarded in Medical Microbiology
- [ ] NRCC – National Registry of Certified Chemists (limited to individuals with a doctoral degree)
- [ ] Do not know
- [ ] Other (please specify)

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CURRENT PRACTICE

*** 21. Do you test for *C. difficile*?**

- ◯ Yes
- ◯ No

Skip logic: if no, end survey.

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CURRENT PRACTICE

*** 22. Do you provide instructions (written, verbal or computer) to your healthcare providers against sending stools for *C. difficile* testing if the patient is on laxatives?**

- ◯ Yes
- ◯ No
- ◯ In the process of making changes based on the ASM-CDC guideline
- ◯ Do not know

*** 23. Do you reject formed stools for *C. difficile* testing?**

- ◯ Yes
- ◯ No
- ◯ In the process of making changes based on the ASM-CDC guideline
- ◯ Do not know

*** 24. Does your laboratory have a policy to reject repeat stool specimens within seven days for *C. difficile* testing?**

- ◯ Yes
- ◯ No
- ◯ In the process of making changes based on the ASM-CDC guideline
- ◯ Do not know

*** 25. Does your laboratory have a policy to reject stool specimens for *C. difficile* "test of cure" testing?**

- ◯ Yes
- ◯ No
- ◯ In the process of making changes based on the ASM-CDC guideline
- ◯ Do not know

*** 26. Does your laboratory require a patient to have three liquid stools within 24 hours to be acceptable for *C. difficile* testing?**

- ◯ Yes
- ◯ No
- ◯ In the process of making changes based on the ASM-CDC guideline
- ◯ Do not know

*** 27. Do you use more than one testing strategy depending on your patient population/clinical setting?**

- ◯ Yes
- ◯ No

Skip logic: if no, skip to question 29.

CURRENT PRACTICE

*** 28. Which population(s)/clinical setting(s) do you have more than one testing strategy?**

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CURRENT PRACTICE

For the following two questions, the abbreviations stand for --
NAAT: Nucleic Acid Amplification Test (such as PCR, LAMP and other amplification methods)
EIA: Enzyme Immunoassay (including lateral flow)
GDH: Glutamate Dehydrogenase EIA (including lateral flow)
Toxin: Enzyme Immunoassay or lateral flow Assay
--> means followed by. i.e.: Test 1 followed by (-->) Test 2 in a defined algorithm

*** 29. Which of the following is your primary testing strategy?**

- ○ NAAT as a stand alone test
- ○ NAAT as a component of a multiplex assay (e.g., BioFire, Cepheid, Luminex, etc.)
- ○ Toxin alone
- ○ Culture alone
- ○ Toxigenic culture
- ○ Cell Cytotoxity Neutralization Assay (CCNA)
- ○ GDH --> Toxin
- ○ GDH + Toxin (together) --> NAAT
- ○ GDH --> Toxin --> NAAT
- ○ NAAT --> Toxin
- ○ Toxin --> NAAT
- ○ GDH --> NAAT
- ○ Other (please specify)

*** 30. Which of the following is your secondary testing strategy?**

- ◯ NAAT as a stand alone test
- ◯ NAAT as a component of a multiplex assay (e.g., BioFire, Cepheid, Luminex, etc.)
- ◯ Toxin alone
- ◯ Culture alone
- ◯ Toxigenic culture
- ◯ Cell Cytotoxity Neutralization Assay (CCNA)
- ◯ GDH --> Toxin
- ◯ GDH + Toxin (together) --> NAAT
- ◯ GDH --> Toxin --> NAAT
- ◯ NAAT --> Toxin
- ◯ Toxin --> NAAT
- ◯ GDH --> NAAT
- ◯ Do not have a secondary testing strategy
- ◯ Other (please specify)

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*** 31. Which shifts do you perform testing for *C. difficile*? (Select all that apply.)**

- [ ] Day
- [ ] Afternoon/Evening
- [ ] Late Evening/night

*** 32. What is your average turn-around-time for the *initial* result in your algorithm? (Use whole numbers to represent hours from 1 hour to 96.)**

0 Hours 96

*** 33. If you use more than one test in your algorithm, what is your average turn-around-time for the *second* result in your algorithm? (Enter "0" into the box on the right if a second test is not performed.)**

0 Hours 96

*** 34. If you use more than two tests in your algorithm, what is your average turn-around-time for the *third* result in your algorithm? (Enter "0" into the box on the right if a third test is not performed.)**

0 Hours 96

*** 35. How many stool specimens do you test annually?**

- ○ 0 - 100
- ○ 101 - 500
- ○ 501 - 1,000
- ○ 1,001 - 5,000
- ○ 5,001 - 10,000
- ○ > 10,000
- ○ Do not know

***36. Do you know what percentage of your stool specimens are positive for *C. difficile*?**

- ◯ Yes
- ◯ No

Skip logic: if no, skip to question 38.

*** 37. What percent of your stool specimens are positive for *C. difficile*?**

0 50% 100%

CURRENT PRACTICE

*** 38. Do any of your clients perform fecal transplants?**

- Yes
- No
- Do not know