

August 2008

## ***Clostridium difficile* toxin testing - Specimen Acceptance Criteria**

To Health Care Providers:

*C. difficile* is a known cause of pseudomembranous colitis and antibiotic-associated diarrhea (AAD). This organism has also proven to be a leading cause of nosocomial diarrhea in hospitals and nursing homes.

The following guidelines outline the procedures to be followed when submitting specimens to be tested for *C. difficile* toxin A/B by enzyme immunoassay. Routine toxin testing does not confirm if the strain is NAP1/O27. Note that the Ontario Public Health Laboratories do not routinely perform *C. difficile* toxin testing on weekends and holidays.

- 1) Choose specimens from patients with diarrhea or with symptoms of pseudomembranous colitis who are more than 12 months old.
  - Faeces should be loose / watery enough to conform to the shape of the container. Formed faeces specimens will be rejected unless the requisition indicates the patient may have pseudomembranous colitis.
  - *C. difficile* toxin testing will not be performed on infants less than 12 months old, as this group has been shown to be asymptomatic carriers with colonization rates as high as 50%.
- 2) Collect a maximum of three specimens with 18-24 hour intervals in between collection.
  - If two or more specimens are collected on the same day, only one will be tested and reported.
- 3) Collect at least 3 to 5 ml of faeces.
  - Rectal swabs are not an acceptable alternative and will not be tested for toxin.
- 4) Tighten cap to prevent leakage.
  - Leaking specimens will be rejected.

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- 5) Transport the specimen to the laboratory as soon as possible.
  - Refrigerated specimens must be received within 72 hours of collection during normal business hours.
  - If the timeframe cannot be met, freeze the specimen and indicate the date frozen on the requisition.
  - Unfrozen specimens more than 72 hours old will be rejected.
  
- 6) *C. difficile* toxin testing is not reliable as a test of cure. Toxin may be detected long after clinical symptoms have resolved.
  - Specimens from previously positive patients who are asymptomatic after completion of therapy will not be tested.
  - Specimens from patients who are persistently symptomatic in spite of therapy (refractory disease) may be submitted for testing 4 weeks after a previously positive test.

For surveillance / outbreak related investigations of strain type or antibiotic susceptibility patterns of *C. difficile*, contact the Medical Microbiologist, Dr. Dylan Pillai at 416-235-6548.

**For Further Information:**

- Contact the Enteric Laboratory at **416-235-5938** or your local Public Health Laboratory
  
- Call the OPHL HELPLINE **1-800-640-7221**
  
- Specimen Collection Guide  
<http://www.oahpp.ca/services/specimen-collection-guide.html>
  
- Ministry website at [www.Health.gov.on.ca](http://www.Health.gov.on.ca)