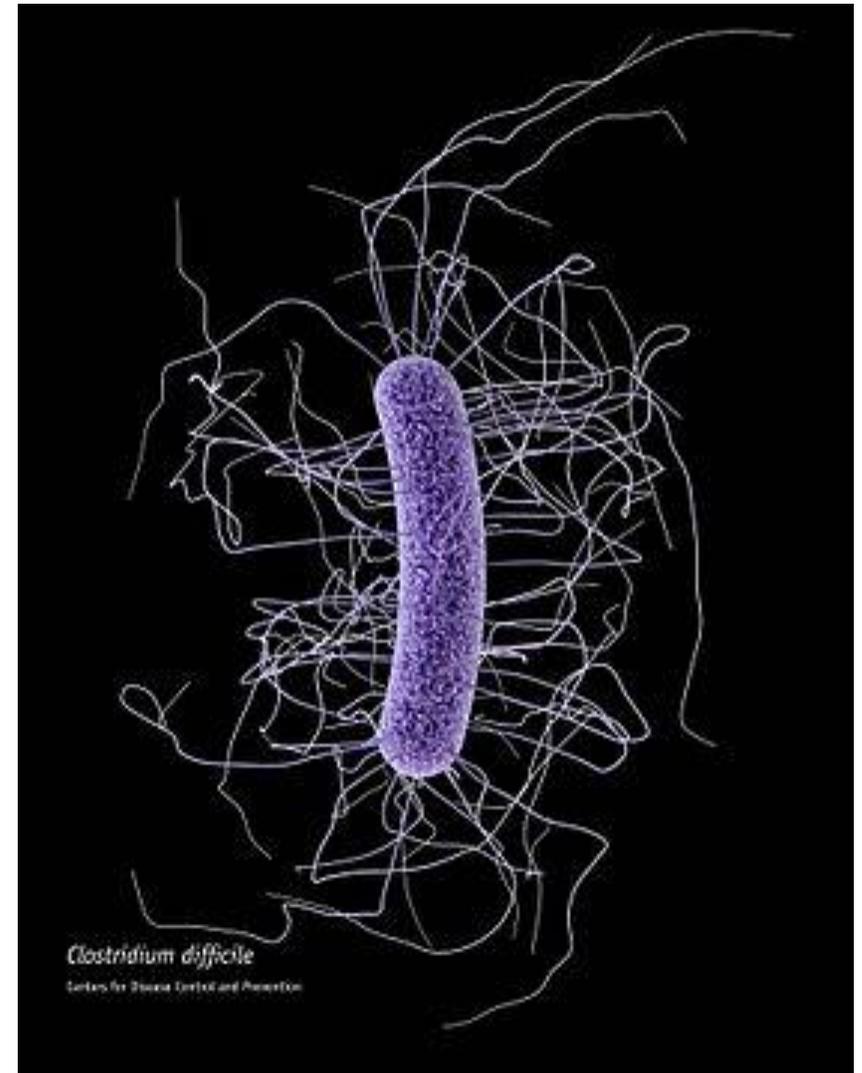


# New C. Difficile Laboratory Testing

Provider Education

APRIL 2019

Antimicrobial Stewardship Committee

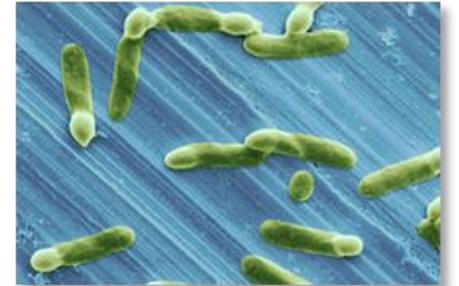


# Mission Lab Will Begin a New Screening Process for Clostridium Difficile

## Why is the Procedure Changing for *C. difficile* Testing?

- **Patient safety**

- The new lab process will differentiate patients with *active* C. diff. from those who have C. diff. *colonization*.
- Using the new method of testing will reduce over-diagnosis of C. diff. and **unnecessary antibiotic use**.
  - *Clostridium difficile* is responsible for half a million infections and 29,000 U.S. deaths each year.
  - The average 30 day mortality is 9.3% with over 80% of deaths occurring in the elderly.
  - In the elderly, 1 in 11 die within a month of developing a *C. difficile* infection.



- **Cost savings**

- Submitting stool samples consistent with clinical disease will prevent unnecessary testing and antibiotic use.
  - It is estimated that excess costs associated with CDI is \$4.8 billion annually or ~\$25,000 per episode.

- **Consistency with HCA lab collection protocols**

# Criteria of acceptable stool samples for testing.

- **Nursing will use the Bristol Stool Chart** to determine stool consistency.
- **Type 6 & Type 7 (mushy or watery)** stools are appropriate for C. Difficile testing. \*
- All other stool types will be rejected by the lab according to their policy.
- Specimens must be submitted **to the lab within 2 hours** or refrigerated at 4°C to avoid false negative results, as C. diff. toxin degrades quickly.

\*Testing formed stools is inconsistent with clinical disease. Asymptomatic carriers may receive unnecessary antibiotics due to “false positive” test results.

## Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. <b>Entirely Liquid</b>

# A soft stop alert will be implemented when ordering *C. difficile* screening.

**Samples not meeting the following criteria will be cancelled per laboratory policy:**

1. Diarrhea of 3 or more stools in the last 24 to 36 hours.
  2. Stool consistency is equivalent to Bristol Stool Chart Type 6 or 7 (mushy or watery stool).
  3. Additionally, samples from patients who have received laxative or other medications causing diarrhea in the last 2 days will routinely be discarded.
- *Acutely/critically ill patients in whom *C.difficile* is suspected should have consultation with ID, GI, and/or pulmonary critical care specialists.*

# PREVENTION OF CDI

**Basic practices for prevention and monitoring of CDI include:**

- **Antimicrobial stewardship** a key strategy for prevention:
  - avoid unnecessary antibiotics, de-escalate, and use appropriate duration
- Implementation of **contact and soap and water precautions** should be employed as soon as CDI is suspected or confirmed.
- **Hand hygiene with soap and water** before and after patient contact, as well as before and after putting on and taking off gloves.
- **Strict cleaning and disinfection of equipment and environment:**
  - Environmental cleaning should be performed using a sporicidal agent
  - Dedicated equipment should be used.
- **Patient and family education** about CDI.

