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 4⁰C 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.*
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.
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.