C. difficile Testing Algorithm

What is the indication for ordering a C. difficile PCR assay?

- Test of cure (i.e., ordering test in patients treated for C. difficile infection after symptom resolution to document “clearance” of infection)
- Ongoing concern for CDI even though a previous PCR test was negative (within past 72 h)
- Concern for C. difficile infection

In patients treated for C. difficile infection, retesting to document clearance of the toxin is NOT recommended because patients may shed the organism or toxin for several weeks after treatment.

- C. difficile tests should not be done for purposes of discontinuing isolation.
- Patients can only be taken off isolation by Infection Control.
- Isolation can be discontinued when the patient's symptoms (e.g., diarrhea) have resolved and they have completed their course of anti-CDI antibiotic.

Multiple tests for C. difficile are NOT necessary

- Sensitivity of the C. difficile PCR is higher (>99%) than previously employed assays, obviating the need for multiple tests.
- Investigate alternative causes of diarrhea, such as tube feeds, antibiotics, chemotherapy, or stool softeners/laxatives.
- If there are signs or symptoms suggesting presence of an infectious disease, consider alternative pathogens other than C. difficile.
Does the patient have diarrhea (i.e., 3 or more loose or liquid stools per day)?

- **No**
  - The PCR test should be ordered only for patients experiencing 3 or more loose stools per day for 1-2 days duration.
  - **Formed stool specimens will be rejected**, as this is not consistent with *C. difficile* disease and the assay is not approved for testing formed stools.
  - If there is concern for ileus or toxic megacolon, consider additional evaluation, e.g. abdominal imaging and/or Surgery consultation.

- **Yes**
  - Does the patient have other signs or symptoms of *C. difficile* infection (e.g. fever, elevated WBC, abdominal discomfort)?
    - **No**
      - Does the patient have risk factors for *C. difficile* infection?
        - Recent antibiotic exposure
        - Recent intraabdominal surgery
        - Age >60 years
      - If none, the pre-test probability and positive predictive value are low. Testing is unlikely to be helpful.
      - Investigate alternative causes of diarrhea, such as tube feeds or stool softeners/laxatives
      - **If yes, order test**
    - **Yes**
      - **C. difficile** PCR assay is recommended. Send stool sample to lab immediately.
        - Limit or de-escalate concurrent antibiotic use if possible
        - Concurrent antibiotics will impede resolution of *C. difficile* disease
        - Do NOT treat asymptomatic bacteriuria
        - Discontinue acid suppression if possible
          - If unable to stop acid suppression, consider using an agent with relatively low potential to impact pH, e.g. H2 blocker or sucralfate
        - Discontinue stool softeners or laxatives, including PRN orders
        - Avoid the use of anti-peristaltic agents (e.g., loperamide, diphenoxylate and atropine), as they may impede natural elimination of *C. difficile* toxin, obscure symptoms, and precipitate worsening disease
        - Consider early surgical consultation for patients with severe, complicated disease to assess need for colectomy

As always, sound clinical judgement should be applied in conjunction with the information provided by this algorithm. In some instances, expert opinion should be solicited. If needed, a CAUSE representative is available to assist (806-6494).