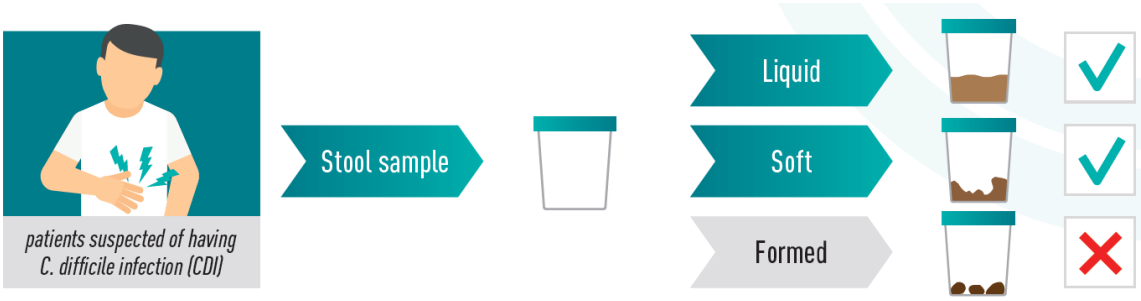
IDSA GUIDELINE

GenePOC™

Clostridium difficile Testing
Highlight of the New 2017 IDSA Guidelines

Clinical Practice Guidelines for *Clostridium difficile* Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA). L. Clifford McDonald, et al. CID 2018

- **WHO?** Prefered patients with unexplained and new-onset **>3 unformed stools in 24h** should be tested for *C. difficile.*



- **HOW?** By NAAT alone or multi-step algorithm depending on the stool collection criteria:

1. From stool specimens from **patients likely to have CDI based on clinical symptoms** that have been submitted based on pre-agreed institutional criteria:
   Use a **NAAT alone** or a multistep algorithm (i.e. GDH+Toxin; GDH+Toxin, arbitrated by NAAT; or NAAT+Toxin) rather than a toxin test alone.

2. From **commonly submitted** stool specimens (no pre-agreed institutional criteria):
   Use a toxin test in a **multistep algorithm** (i.e. GDH+Toxin; GDH+Toxin, arbitrated by NAAT; or NAAT+Toxin) rather than a NAAT alone.

As mention in the ref 190 of the IDSA Guideline, Page 21: **Berry et al**, JHI 2014, Real-time polymerase chain reaction correlates well with clinical diagnosis of *Clostridium difficile* infection: "When the **GDH screen** was evaluated, **16.2% of patients with clinical CDI would not have been detected**. Combining **GDH and EIA testing**, **59.7% of patients with CDI would have been missed** (GDH positive, toxin EIA negative)." vs NAAT testing.

Conclusion: Rapid diagnosis of CDI using PCR was timely, accurate and correlated well with clinical diagnosis.

Additional highlights of IDSA 2017:

Repeat testing? Do not perform repeat testing (within 7 days) during the same episode of diarrhea and do not test stool from asymptomatic patients.

Neonate or infant testing? Because of the high prevalence of asymptomatic carriage of toxigenic *C. difficile* in infants, testing for CDI should never be routinely recommended for neonates or infants ≤12 months of age with diarrhea.

Pediatric testing? *C. difficile* testing should not be routinely performed in children with diarrhea who are 1–2 years of age unless other infectious or non-infectious causes have been excluded.
In children ≥2 years of age, *C. difficile* testing is recommended for patients with prolonged or worsening diarrhea and risk factors (e.g. underlying inflammatory bowel disease or immunocompromising conditions) or relevant exposures (e.g. contact with the healthcare system or recent antibiotics).

Asymptomatic carriers? There are insufficient data to recommend screening for asymptomatic carriage and placing symptomatic carriers on contact precautions *(no recommendation).*

Antibiotic stewardship to control CDI rates? Minimize the frequency and duration of high-risk antibiotic therapy and the number of antibiotic agents prescribed, to reduce CDI risk.
Implement an antibiotic stewardship program.
Antibiotics to be targeted should be based on the local epidemiology and the *C. difficile* strains present. Restriction of fluoroquinolones, clindamycin, and cephalosporins (except for surgical antibiotic prophylaxis) should be considered.