Beginning January 24th, 2017 Caromont Health Laboratory began using real time polymerase chain reaction (RT-PCR) as the amplified technology for testing of toxigenic *Clostridium difficile*. Ordering in EPIC will remain unchanged. This RT-PCR testing replaces the Loop-Mediated Amplification (LAMP) test currently in use. Testing will be performed on our newest molecular instrument, the BD MAX, which has a fully-integrated, automated platform providing improved sensitivity for C. difficile detection and consistent results through standardized workflow. In a large study performed at John Hopkins, the BD Max C. difficile test was compared to toxigenic culture, the most sensitive conventional method for C. difficile detection in stool specimens. In this study sensitivity and specificity were 97.8% and 98.9% respectively with a negative predictive value of 99.6%.

**Test/Method Limitations**

1. Incorrect test results may occur with improper/inadequate specimen collection or because the number of organisms is below the analytical sensitivity of the test.
2. A positive result does not necessarily indicate the presence of viable organisms.
3. Specimens in transport media are not acceptable.
4. Mesalamine rectal suspension enema and Glycol II may cause slight inhibition in the assay; however expected assay results were still obtained in clinical trials.
5. Potentially interfering substances include calcium carbonate (Tums) as well as magnesium and aluminum hydroxide (Maalox liquid).

**References:**

2. BD MAX Cdiff Package Insert, GeneOhm Sciences Canada, Inc., 2555 Boul. Du Parc Technologique, Quebec, QC, QC, G1P 4S5, Canada, 2016