were reviewed by Infectious Diseases physicians blinded to the EIA results. Using the American College of Gastroenterology (ACG) classification system, CDI status was determined to be mild, moderate, severe, or complicated. Patients without significant diarrhea (<3 unformed stools / 24 hours) were considered colonized. Those without documentation of stools were classified as indeterminate. Correlation of clinical assessment with EIA results was assessed.

Results. Most of the PCR positive specimens (75%) were toxin EIA negative. Correlation of clinical assessment with toxin EIA is summarized in the table below. Among patients colonized vs. those with CDI, the percentages with negative toxin EIA results were 80% and 73%, respectively. GDH antigen results were negative for 25 specimens—17 were from patients considered to have CDI.

	C. difficile PCR positive specimens			
Clinical Assessment	Toxin EIA positive		Toxin EIA negative	
(No.)	No.	Row %	No.	Row %
Indeterminate (11)	1	9.0	10	90.9
Colonized (39)	8	20.5	31	79.5
CDI (250)	67	26.8	183	73.2
Mild (47)	10	21.3	37	78.7
Moderate (68)	21	30.9	47	69.1
Severe (26)	6	23.1	20	76.9
Complicated (109)	30	27.5	79	72.5
Total (300)	76	25.3	224	74.7

Conclusion. Toxin EIA performed on samples positive for *C. difficile* by PCR does not reliably identify patients considered to have CDI with ACG criteria applied. GDH as an initial screen would not have detected 6.8% of patients with CDI.

Disclosures. **S. S. Richter**, bioMerieux: Investigator, Research support; BD Diagnostics: Investigator, Research support; Roche: Investigator, Research support; BioFire: Investigator, Research support; OpGen: Investigator, Research support

1291. Clinical Characteristics and Outcomes of Hematologic Malignancy Patients with *Clostridium difficile* Toxin EIA vs. PCR Positive Test Results

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Session: 149. HAI: C. difficile *Epidemiology, Impact, and Testing*
Friday, October 6, 2017: 12:30 PM

Background. *C. difficile* infection is common in patients with hematologic malignancy. There is increasing recognition that molecular (polymerase chain reaction, PCR) based testing lacks specificity for infection, while detecting patients with colonization. The objective of our study was to evaluate characteristics of patients with toxin enzyme immunoassay (EIA) vs. PCR positive *C. difficile* test results.

Methods. A retrospective review of inpatients at a tertiary care academic center with hematologic malignancy and a positive C. *difficile* test from 1/2015 to 1/2016 was performed. Data on demographics, comorbidities, clinical features, and outcomes were collected using medical record review. Characteristics were compared between patients with EIA vs. PCR positive test results using chi-squared or Fisher's exact test for categorical variables and Wilcoxon rank-sum test for continuous variables.

Results. A total of 130 patients were included: 51% and 49% had a PCR positive and EIA positive result, respectively. Diagnoses included AML (42%), multiple myeloma (22%), and Non-Hodgkin's lymphoma (13%). Antibiotic exposure was similar, with a median of 4 days of anti-pseudomonal antibiotics received in the prior 30 days. There was no difference in history of a positive *C. difficile* test in the prior year (12% in the EIA group, 10% in the PCR group, $P = 0.71$).

Patients with EIA positive results were more likely to have a WBC ≥15/mm^3 (18% vs. 6%, $P = 0.02$). However, there were no differences in presence of fever, stool frequency, or imaging evidence of colitis at the time of testing. Medications in the prior 72 hours were similar, including the use of proton pump inhibitors of ~40% and of laxatives of 28%. Clinical outcomes were also similar between patients with EIA vs. PCR positive tests: all-cause death (22% vs. 20%), recurrent CDI (9% vs. 13%), colectomy (1% vs. 4%), and megacolon (0% vs. 3%). Most patients received treatment with oral vancomycin for a median duration of 14 days.

Conclusion. In patients with hematologic malignancy, those with EIA vs. PCR positive *C. difficile* test results were clinically similar. These findings suggest that algorithms for testing and treatment of *C. difficile* in hematologic malignancy patients will need to be specifically targeted towards this immunocompromised population.

Disclosures. **All authors:** No reported disclosures.

1292. Using Clinical Decision Support to Improve Evidence Based Testing and Diagnosis of *Clostridium difficile* Infection

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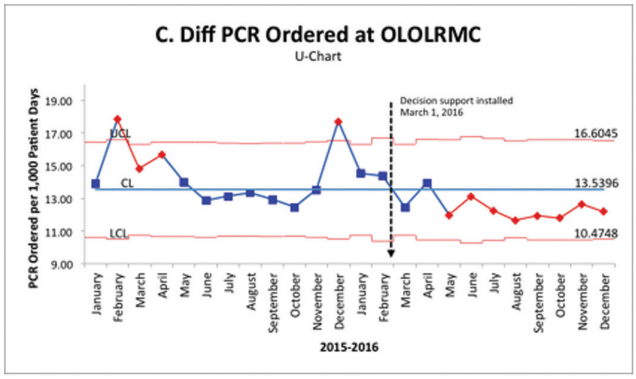
Session: 149. HAI: C. difficile *Epidemiology, Impact, and Testing*
Friday, October 6, 2017: 12:30 PM

Background. Diagnosing *Clostridium difficile* infection (CDI) requires clinical understanding of the disease and knowledge of diagnostic testing limitations. It is important for providers to utilize CDI testing only in patients with suspected disease. Real-time polymerase chain reaction (PCR) assays are sensitive but cannot differentiate between symptomatic and asymptomatic patients. Individual hospitals have reported a 50% to 100% increase in the rate of CDI after substituting toxin tests with molecular tests such as PCR. We conducted a quality improvement project, implementing clinical decision support in ordering diagnostic testing of CDI, while measuring the number of diagnostic tests ordered and positive results.

Methods. We implemented evidence based clinical decision support into Cerner order entry system on March 1, 2016. The Cepheid Xpert *C. difficile* molecular test is used for diagnosis of CDI at our facility. The decision support included a message stating Òuse the test with caution in patients who are receiving tube feeds or recent laxative useÓ and prompted ordering providers to select one of three indications for using the test: 3 or more diarrheal stools per 24 hour period, leukocytosis with abdominal pain, or ileus. A control chart was used to monitor the number of tests ordered and positive tests per month (inpatient adults) for a total of 24 months; 14 months pre-intervention and 10 months post-intervention.

Results. A decrease in the number of tests ordered per month was seen post intervention. Average number of monthly tests ordered was 207 pre-intervention and 163 post-intervention. After controlling for patient-days per month, there was a 13.5% decrease in the number of tests ordered from a mean of 14.29 vs.. 12.37 tests per thousand patient-days per month. This resulted in special cause variation (Figure 1). There was no special cause variation detected with the number of positive PCRs per month, pre and post intervention.

Conclusion. Implementing decision support into the electronic medical record may assist providers with evidence-based utilization of the *C. difficile* PCR by decreasing unnecessary testing. This decrease may also have an impact on overall hospital costs, antibiotic utilization, and public reporting related to CDI.



Disclosures. **All authors:** No reported disclosures.

1293. Impact of a Multi-disciplinary *C. difficile* Action Team

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Session: 149. HAI: C. difficile *Epidemiology, Impact, and Testing*
Friday, October 6, 2017: 12:30 PM

Background. *Clostridium difficile* infection (CDI) is associated with increased length of hospital stay, morbidity, mortality, and cost of hospitalization. Early intervention by experts from multiple areas of practice such as gastroenterology (GI), infectious diseases (ID) and surgery can be essential to optimize care and increase utilization of novel treatment modalities such as fecal microbiota transplant (FMT) and minimally invasive, colon-preserving surgical management.

Methods. A multi-disciplinary *C. difficile* action team (MD-CAT) was implemented at University of Maryland Medical Center (UMMC) in March 2016 to engage appropriate specialty consultants in the care of CDI patients. The MD-CAT reviews positive *C. difficile* tests at UMMC and provides guidance and suggestions to the