Background. Patients may be over-diagnosed with *C. difficile* infection (CDI) due to colonization, especially if laxatives are used. We had implemented an alert to prompt providers to discontinue *C. diff* orders in the setting of laxative use. This initially decreased orders by about 25%, but became less effective over time. Our objective was to strengthen our *C. diff* testing stewardship by creating a "hard stop" to require providers to think critically about *C. diff* testing in the presence of laxative use or the absence of documented diarrhea.

Methods. Our two-hospital, >1100-bed community-based academic healthcare system performs all *C. diff* testing via PCR. We implemented our initial laxative alert, which notified providers but did not prohibit testing, in March 2015. In April 2017, we launched a new alert that fired >36 hours after admission, and assessed for documented diarrhea (>2 episodes/24 hours). If diarrhea was present, it would assess for any administered laxative within prior 24 hours. If neither criterion was met, the provider could only order *C. diff* testing by calling the laboratory and documenting the staff person's name in the order; no further justification was required. We measured the number of *C. diff* tests completed per day, the number of calls made to lab, and CDI rates (using NHSN LabID definition). Balancing measures included monitoring oral vancomycin orders without *C. diff* testing, and delayed CDI diagnoses.

Results. At baseline, we observed a mean of 9 (SD, 4–14) *C. diff* orders daily. After initiating the hard stop alert, daily testing decreased by 30% (Fig. 1). Frequency of hospital-onset CDI dropped by 45% during first month of implementation (Fig. 2), from mean 3.6/week to 2/week. To date we have not detected delayed diagnoses or empiric treatment without testing; 18 override laboratory calls have been documented.

Conclusion. Given PCR's high sensitivity for *C. diff*, testing stewardship is critical to minimize false-positive cases of CDI, which lead to inappropriate treatment, prolonged length of stay, and hospital penalties. Requiring a phone call to order *C. diff* testing in the setting of laxative use or minimal diarrhea effectively reduced testing, and was well-accepted by nurses and providers. To date, no adverse effects have been detected.

Fig. 1. Order volume by date.

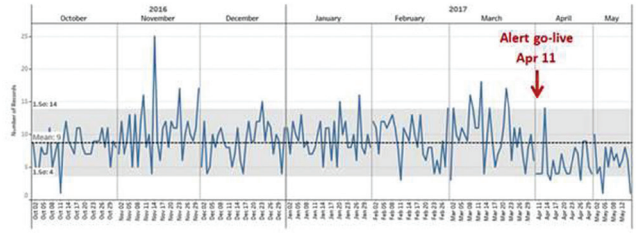
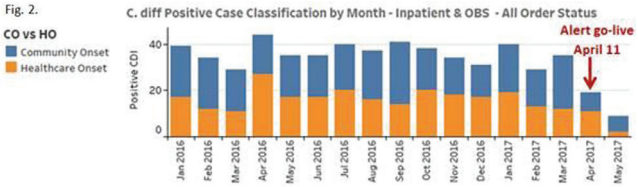


Fig. 2.



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

80. Impact of an Automatic Hospital Probiotic Protocol on *Clostridium difficile* Infection Rates and Antibiotic Usage Patterns

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Background. The use of probiotics in hospitalized patients ordered antibiotics has been associated with a preventative effect against *Clostridium difficile* infection (CDI) in a few small studies and meta-analyses. Starting in 2014, all adult patients admitted to our 330-bed community hospital who were started on an antibiotic automatically received a course of the probiotic *Saccharomyces boulardii* (SB). Our study provides a much larger experience with which to assess the preventative use of SB in patients receiving concomitant antibiotics.

Methods. Rates of CDI were compared during the 3-year periods before and after the automatic SB protocol implementation. CDI infection rates using ICD-9 code and CDC hospital-associated infection (HAI) definitions were compared. The use of CDI treatment agents (oral vancomycin and oral metronidazole) expressed in DDD/1,000 patient-days, and rates of SB infections/cultures were also assessed. All rates were standardized per hospital census. *Clostridium difficile* laboratory detection was performed by PCR analysis throughout the study period.

Results. Case rates of CDI using ICD-9 or CDC HAI definitions did not differ before and after protocol implementation ($P = 0.165$ and $P = 0.521$, respectively). The use of CDI treatment antibiotics were also similar; oral metronidazole ($P = 0.269$), oral vancomycin ($P = 0.938$), total CDI agents ($P = 0.633$). Positive specimen cultures for SB where identified in two patients prior to protocol and in 27 patients during the protocol years. Actual SB infections from sterile body sites were identified in five patients during the protocol vs. only one case in the pre-protocol years ($P = 0.035$). The average yearly cost of SB prophylaxis was $63,000.

Conclusion. In our global assessment of this data, the use of an automatic SB protocol at our community hospital was not associated with a protective effect against CDI. The use of SB was associated with an increased risk of SB infections. Further study of SB and other probiotic formulations for CDI prevention are warranted.

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

81. Etiology of Infectious Diarrhea in Patients Tested for *Clostridium difficile*: If It Isn't *Clostridium difficile*, What Is It?

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Background. The objective of the study was to assay for alternative infectious causes of diarrhea in patients with negative EIA tests for *Clostridium difficile.*

Methods. A hard-stop alert was implemented at a tertiary care hospital to limit repeat testing for *C. difficile* within 96 hours of an initial negative EIA. Stool samples from patients with a negative (–) repeat EIA test for *C. difficile* within 96 hours in the 3 months pre- and postintervention underwent further evaluation: *C. difficile* toxigenic culture, GeneXpert *C. difficile* PCR, Biofire Gastrointestinal (GI) Panel, and culture on a blood agar plate.

Results. Of the 84 *C. difficile* EIA stool specimens evaluated, 8% were toxigenic culture positive (+), 8% tested + for *C. difficile* via the Biofire GI panel, and 5 (7%) + with the GenXpert *C. difficile* PCR (Table 1). Three of these patients were diagnosed with CDI within 30 days of a + test. Five patients were + for Norovirus via Biofire GI panel; none were tested for or diagnosed with Norovirus. Two patients were + for Enteropathogenic *E. coli* and one for Enteroaggregative *E. coli* via Biofire GI panel; none were tested for or diagnosed with *E. coli* infection. One patient was positive for *Salmonella* and *Salmonella* was isolated by stool culture.

Conclusion. Patients tested for *C. difficile* may have alternate causes of diarrhea. When evaluating hospitalized patients with diarrhea, *C. difficile*, along with alternate causes of diarrhea can be considered.

Table 1. Alternate infectious causes of diarrhea

Result	Preintervention (*N* = 73)	Postintervention (*N* = 11)
Biofire GI results		
Negative	57 (78)	10 (91)
Norovirus	5 (7)[a]	0
C. difficile toxin A/B gene	5 (7)	1 (9)
Enteropathogenic *E. coli*	2 (3)[b]	0
Campylobacter	1 (1)[c]	0
C. difficile tox A/B gene and Rotavirus	1 (1)	0
Enteroaggregative *E. coli*	1 (1)[b]	0
Salmonella	1 (1)[d]	0
C. difficile culture positive		
Nontoxigenic *C. difficile*	2 (3)	2 (18)
Toxigenic *C. difficile*	5 (7)	2 (18)
GenXpert *C. difficile* PCR positive	5 (7)	0
Blood agar plates		
Klebsiella oxytoca	1 (1)	0
Staphylococcus aureus	3 (4)	0

[a]None received clinical diagnosis of Norovirus.
[b]No clinical enteric culture performed or diagnosis received.
[c]Clinical enteric culture performed >30 days postindex stool collection (negative).
[d]Clinical enteric culture in hospital positive for *Salmonella.*

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