Protocol Implementation and Adherence

Total Number of Patients Served

	November	December	January	February	March	April	May	June	July	August
# of patients served (notes placed)	65	74	118	80	197	178	161	205	215	265

Adherence Rates and Implementation Periods (N=25 per block)

Unit/Block	November		December		January		February		March		April		May		June		July		August	
Phase A units *Academic, General medicine*	54%	57%	80%	60%	85%	83%	46%	75%	70%	83%	87%	70%	31%	83%	83%	77%	55%	79%	75%	71%
Phase B units *Mixed academic & community, general & specialty medicine*	*Pre-intervention Period*								83%	46%	78%	71%	55%	57%	63%	78%	36%	29%	75%	53%
Phase C units *Community, general medicine*	*Pre-intervention Period*														36%	45%	29%	45%	45%	64%

Fig. 1.

the AMS TOC intervention, pharmacists implemented 3 strategies: (1) early identification of patients to be discharged on oral antibiotics; (2) collaborative planning and communication regarding guideline-recommended antibiotic selection and duration; and (3) facilitation of discharge antibiotic prescription with appropriate stop date. Process improvements were modified to fit the academic and community hospital practice models. The process was implemented in general and specialty practice wards at each hospital site. Prior to implementation in October 2018, pharmacists were trained on tools to standardize identification, collaboration, and documentation. Pocket cards were used to augment education and electronic medical record (EMR) templates standardized documentation. Physicians and nurses on participating units were educated on the rationale and process. Following initiation, ongoing feedback was provided regularly to pharmacists to discuss challenges and to identify solutions. Process measures included the total number of patients receiving the intervention monthly, as indicated by pharmacist AMS TOC notes placed. Protocol adherence was evaluated in 25 randomly selected patients in each study phase each month. Adherence was defined as a pharmacist preparing discharge prescriptions and a placing note in the EMR. **Results:** Over the study period, 1,558 patient encounters received AMS TOC facilitation by a pharmacist. Monthly protocol adherence ranged from 29% to 87% (higher in academic institutions than community) (Fig. 1). Months of low protocol adherence were associated with times of reduced staffing and onboarding a large group of new employees or trainees. Additional barriers included discharges over weekends. The most common area needing clarification was how to count days of therapy to determine the appropriate stop date. A guide of how to count days of therapy was created to assist. **Conclusions:** Pharmacist-led antimicrobial stewardship at discharge is a feasible intervention in both academic and community settings. Identifying potential barriers and assessing strategies with multidisciplinary healthcare teams allows for optimal implementation and intervention rollout.

Funding: This work was completed under CDC contract number 200-2018-02928.

Disclosures: None

Doi:10.1017/ice.2020.838

Presentation Type:
Poster Presentation

Implementation of Two-Step *Clostridioides difficile* Testing Algorithm and Management of Possible Carriers

J. Daniel Markley, DO, MPH, Virginia Commonwealth University School of Medicine/Hunter Holmes McGuire VA Medical Center; Daniel Tassone, PharmD, Hunter Holmes McGuire VA Medical Center; Melanie Christian, BSN, RN, Hunter Holmes McGuire VA Medical Center; Leroy Vaughan, MD, Hunter Holmes McGuire VA Medical Center; Michael P. Stevens, MD, MPH, Virginia Commonwealth University School of Medicine; Matthew M. Hitchcock, MD, MPH, Hunter Holmes McGuire VA Medical Center; Emily Hill, PhD, Hunter Holmes McGuire VA Medical Center

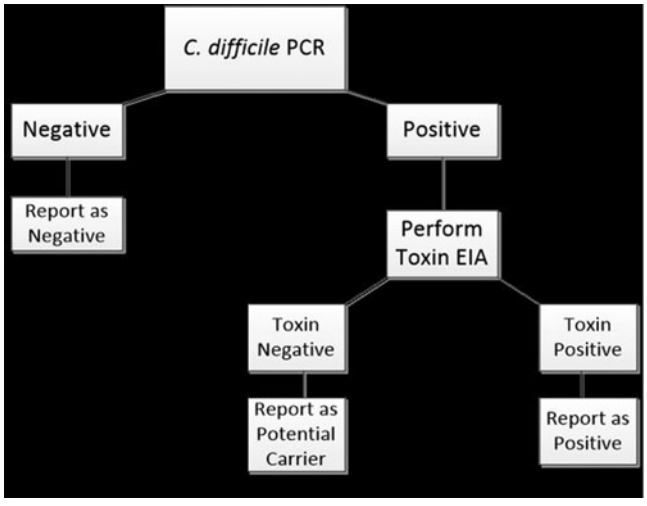

Fig. 1.

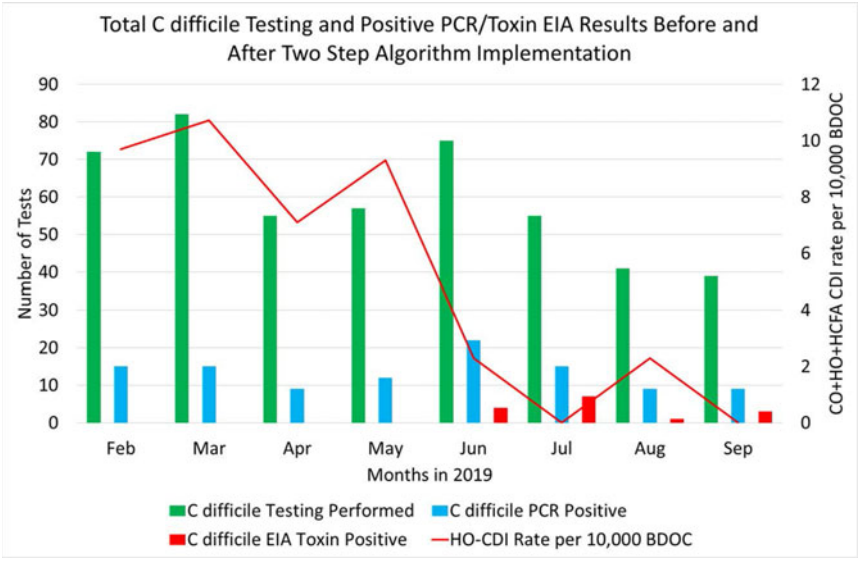

Fig. 2.

Background: Updated IDSA-SHEA guidelines recommend different diagnostic approaches to *C. difficile* depending on whether "There are pre-agreed institutional criteria for patient stool submission." If stool submission criteria are in place, nucleic acid amplification testing (NAAT) alone may be used. If not, a multistep algorithm is suggested, incorporating various combinations of toxin enzyme immunoassay (EIA), glutamate dehydrogenase (GDH), and NAAT, with discordant results adjudicated by NAAT. At our institution, we developed a multistep algorithm leading with NAAT with reflex to EIA for toxin testing if NAAT is positive. This algorithm resulted in a significant proportion of patients with discordant results (NAAT positive and toxin EIA negative) that some experts have categorized as "possible carriers" or *C. difficile* colonized. In this study, we describe the impact of a multistep algorithm on hospital-onset, community-onset, and healthcare-facility–associated *C. difficile* infection (HO-CDI, CO-CDI, and HFA-CDI, respectively) rates and the management of possible carriers. **Methods:** The study setting was a 399-bed, tertiary-care VA Medical Center in Richmond, Virginia. A retrospective chart review was conducted. The multistep *C. difficile* testing algorithm was implemented June 4, 2019 (Fig. 1). *C. difficile* testing results and possible carriers were reviewed for the 5 months before and 4 months after implementation (January 2019 to September 2019). **Results:** In total, 587 NAATs were performed in the inpatient and outpatient setting (mean, 58.7 per month). Overall, 123 NAATs (21%) were positive: 59 in the preintervention period and 63 in the postintervention period. In the postintervention period, 23 positive NAATs (26%) had a positive toxin EIA. Based on LabID events, the mean rate of HO+CO+HCFA CDI cases per 10,000 bed days of care (BDOC) decreased significantly from 9.49 in the preintervention period to 1.15 in the postintervention period ($P = .019$) (Fig. 2). Also, 9 of the "possible carriers" (22%) were treated for CDI based on high clinical suspicion, and 6 of the possible carriers (14%) had a previous history of CDI. Of these, 5 (83%) were treated for CDI. In addition, 1 patient (2%) converted from possible carrier to positive toxin EIA within 14 days. The infectious diseases team was consulted for 11 "possible carriers" (27%). **Conclusions:** Implementation of a 2-step *C difficile* algorithm leading with NAAT was associated with a lower rate of HO+CO+HCFA CDI per 10,000 BDOC. A considerable proportion (22%) of possible carriers were treated for CDI but did not count as LabID events. Only 2% of the possible carriers in our study converted to a positive toxin EIA.

Funding: None
Disclosures: None
Doi:10.1017/ice.2020.839

Presentation Type:
Poster Presentation

Implementation of a Nursing Algorithm for Penicillin Allergy Documentation in the Inpatient Setting

Valeria Fabre, MD, Johns Hopkins University School of Medicine, Department of Medicine, Division of Infectious Diseases, based in Baltimore, MD, USA; Alejandra B. Salinas, BS, Johns Hopkins University School of Medicine, Department of Medicine, Division of Infectious Diseases, based in Baltimore, MD, USA; Lauren Rosales, BA, BSN-RN, The Johns Hopkins Hospital, Labor and Delivery, based in Baltimore, MD, USA; Arjun Srinivasan, MD, Centers for Disease Control and Prevention, Office of Antibiotic Stewardship, Division of Healthcare Quality Promotion, based in Atlanta, GA, USA, Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases, based in Atlanta, GA, USA; Lauri Hicks, DO, Centers for Disease Control and Prevention, Office of Antibiotic Stewardship, Division of Healthcare Quality Promotion, based in Atlanta, GA, USA, Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases, based in Atlanta, GA, USA;; Melinda Neuhauser, PharmD, MPH, Centers for Disease Control and Prevention, Office of Antibiotic Stewardship, Division of Healthcare Quality Promotion, based in Atlanta, GA, USA, Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases, based in Atlanta, GA, USA;; Sara Cosgrove, MD, MS, Johns Hopkins University School of Medicine, Department of Medicine, Division of Infectious Diseases, based in Baltimore, MD, USA

Background: Patients with a penicillin/aminopenicillin (PCN) allergy label are more likely to receive non–β-lactam antibiotics