for off-hours results. Microbiologic and clinical data were collected prospectively. Due to inconsistencies in instrument performance identified after the first month, two post-implementation periods (Group A = October 2018–January 2019; Group B = February 2019–mid-April 2019) were analyzed to assess quality improvement efforts during clinical roll-out.

Results. In the 6.5-month combined period, 690 unique BC samples were run on AP and reviewed by AST (417 in A; 273 in B). Performance of the technology improved, with 78.9% (329/417) of isolates in Grp A identified vs. 85.3% in Grp B (233/273). Percentage of runs with progression to antibiotic susceptibility improved from 76.1% to 92.3%. Over both time periods, AST intervened on 277 samples (Figure 1). Recommendations (bug-drug mismatch, de-escalation, dose optimization, and infectious disease consult) were accepted at a rate of 97.4%. Time from BC positivity to optimal therapy was 15.3 hours (Figure 2).

Conclusion. Implementation of AP with AST review resulted in rapid identification and antibiotic susceptibility results with early optimization of antimicrobial therapy. Highest impact was seen in the management of patients with resistant Gram-negative infections. Oversight of the implementation by a partnership of clinical microbiology and the antimicrobial stewardship team was critical in identifying real-time implementation issues and opportunities for quality improvement. Though real-world performance was slightly inferior to published trial data, the instrument’s exceedingly fast time to AS5 represents a significant advantage over other systems and enhances clinical care and patient safety particularly when paired with AST intervention.

Figure 1: AST Intervention Type

![AST Intervention Type](Image)

Figure 2: Post-implementation Time to Optimal Therapy

![Time to Optimal Therapy](Image)

Disclosures. All authors: No reported disclosures.

1998. Impact of Rapid Blood Culture Identification with Real-Time Antimicrobial Stewardship (ASP) in Patients with Staphylococcus aureus and Enterococcus spp. Bacteremia at a Large Academic Medical Center

Hannah Ryan Rasso, PharmD1; Kady Phe, PharmD, BCPS2; Mary Al Mohajer, MD, MBA1; Jessica Hirase, PharmD3; CHI St. Luke’s Health - Baylor College of Medicine, Houston, Texas

Session: 235. Antibiotic Stewardship: Diagnostics and Diagnostic Stewardship Saturday, October 5, 2019: 12:15 PM

Background. The initiation of appropriate antimicrobial therapy is dependent on timely identification of the pathogen. FilmArray Blood Culture Identification Panel (BCID) is a rapid, multiplex polymerase chain reaction (PCR) panel that identifies 24 pathogens and 3 antibiotic resistance genes associated with bloodstream infections within 1 hour of growth. The purpose of this study was to compare the clinical impact of rapid BCID testing vs. standard blood culture processing, both coupled with real-time AST (PRE) and the post-intervention group included those identified by rapid BCID testing (POST). The primary endpoint was time in hours from positive Gram stain to initiation of optimal antimicrobial therapy (defined as vancomycin (VAN), linezolid (LZD), daptomycin (DAP), or ceftaroline for methicillin-resistant S. aureus (MRSA); naftifin or ceftolozane for methicillin-susceptible S. aureus (MSSA); DAP or LZD for VAN-resistant Enterococcus spp. (VRE); VAN or ampicillin (if susceptible) for VAN-susceptible Enterococcus spp. (VSE)). Secondary endpoints included time to active therapy (defined as an antimicrobial to which the organism was susceptible).

Results. 132 patients were included. Mean time to optimal therapy decreased from 21.4 hours PRE to 10.7 hours POST (P < 0.048). Time to optimal therapy was shorter POST for MSSA (59.2 hours PRE vs. 25.2 hours POST (P < 0.001)) and VRE bacteremia (26.8 hours PRE vs. 5.5 hours POST (P < 0.005)). There was a trend toward decreased time to pathogen identification as well as time to optimal therapy in patients with S. aureus and Enterococcus spp. bacteremia, most notably for MSSA and VRE.

Conclusion. Antimicrobial Stewardship coupled with rapid BCID testing significantly decreased time to pathogen identification as well as time to optimal therapy.

Disclosures. All authors: No reported disclosures.

2000. Utilization of a ‘Never Event’ Framework to Classify Antimicrobial Appropriateness

Juijin Liu, PharmD3; Nicholas Mercuro, PharmD3; Susan L. Davis, PharmD3; Paul Yarnold, PhD4; Twisha S. Patel, PharmD, BCPS, BCIDP3; Lindsay A. Petty, MD3; Gwendolyn M. Pais, PhD3; Keith S. Kaye, MD, MPH5; Marc H. Schetta, PharmD, MSc6; Midwestern University/Northwestern Memorial Hospital, Downers Grove, Illinois; 1Henry Ford Hospital, Wayne State University, Detroit, Michigan; 2Wayne State University / Henry Ford Hospital, Detroit, Michigan; 3Optimal Data Analysis, LLC, Chicago, Illinois; 4Michigan Medicine, Ann Arbor, Michigan; 5University of Michigan, Ann Arbor, Michigan; 6Midwestern University, Downers Grove, Illinois; 7University of Michigan Medical School, Ann Arbor, Michigan

Session: 235. Antibiotic Stewardship: Diagnostics and Diagnostic Stewardship Saturday, October 5, 2019: 12:15 PM

Background. Contemporary strategies can be leveraged to predict antimicrobial overuse, yet little information is gained on the appropriateness of antibiotics prescribed. Classifying appropriateness is complicated by the lack of a standard definition for appropriateness. Thus, we created and implemented a novel 'antibiotic never event' (NE) framework to systematically classify the most inappropriate usages of vancomycin and correlate these NE to abnormal consumption trends (i.e., antibiotic overuse).

Methods. Vancomycin use was categorized by an algorithm using data query from electronic medical records. Extracted data included vancomycin use, relevant patient demographics, and microbiological data. Electronic classifications placed each vancomycin therapy into type 1 (use for non-susceptible organism after susceptibility falsification) or type 2 (use exceeding 48h after susceptibility report when a safe de-escalation is possible). No patients were categorized as cases or controls (neither) at Northwestern Memorial Hospital (NM) and Henry Ford Hospital (HF)