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 Gp A identified vs. 85.3% in Gp 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 AST with AP 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 AS represents a significant advantage over other systems and enhances clinical care and patient safety particularly when paired with AST intervention.

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1999. Does Pharmacist-Driven Methicillin-Resistant *Staphylococcus aureus* PCR Nasal Screening Decrease Time to De-Escalation of MRSA Coverage in Patients with Pneumonia?

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Background. Vancomycin and linezolid are antibiotics used in cases where methicillin-resistant *Staphylococcus aureus* (MRSA) is suspected, including in cases where MRSA is suspected to be the cause of pneumonia. MRSA nasal PCR has been shown to have a high negative predictive value when used to rule out MRSA pneumonia. The purpose of the current study was to determine whether a pharmacist-driven MRSA PCR nasal screening protocol would decrease the time to de-escalation or discontinuation of anti-MRSA therapy when utilized for pneumonia.

Methods. Patients were analyzed in two cohorts, those who received vancomycin or linezolid therapy from October 2012 to February 2013 (before pharmacist-driven MRSA PCR protocol; n = 88) and those who received vancomycin from October 2014 to February 2017 (pharmacist-driven MRSA nasal PCR protocol; n = 105). During the study period, pharmacists were given the authority, via protocol, to order an MRSA nasal PCR when vancomycin or linezolid was ordered for the indication of pneumonia. After a negative MRSA nasal PCR, pharmacists would contact the prescriber, and let the prescriber know that the MRSA PCR was negative, and then discontinue anti-MRSA therapy. The primary outcome was duration in hours of active anti-MRSA therapy; Secondary outcomes evaluated were the number of anti-MRSA antibiotic doses ordered, and the number of vancomycin trough orders.

Results. Patients in the pre-pharmacist driven cohort received vancomycin or linezolid for a median of 44.19 hours, whereas patients in the pharmacist-driven MRSA PCR protocol period received anti-MRSA therapy for a median of 19.1 hours (P < 0.0001). Additionally, prior to the initiation of the pharmacist-driven MRSA nasal PCR protocol, patients received 349 doses of anti-MRSA therapy, compared with 283 doses in the pharmacist MRSA nasal swab protocol group (P < 0.0009). There were also fewer vancomycin trough orders in the pharmacist MRSA nasal PCR protocol group (76 vs. 48, P < 0.0009).

Conclusion. A pharmacist-driven protocol for ordering MRSA nasal PCR led to a statistically significant decrease in the time to discontinuation of vancomycin or linezolid for suspected MRSA pneumonia when the MRSA nasal PCR was negative. 

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