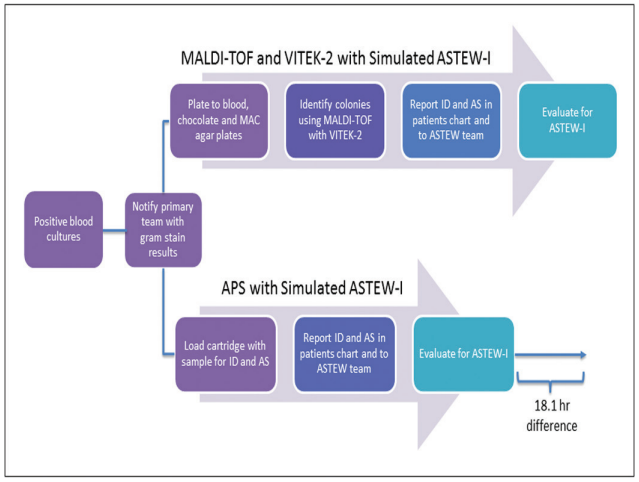
hours (95% CI 11.5–24.6) for 8 hour stewardship coverage. When stewardship coverage was extended to 16 hours, the mean decrease in time to ASTEWI-I with APS was 21.4 hours (95% CI 14.3–28.5). Both time differences were found to be statistically significant ($P < 0.001$).

Conclusion. In a cohort of patients with Gram-negative bacteremia, when compared with SOC, ASTEW-I guided by APS significantly shortened the time to potential antimicrobial optimization. This improvement occurred even when antimicrobial stewardship support was limited to an 8 hour work day.

Figure 1: Protocol with simulated time difference for 8 hour stewardship service



Disclosures. **C. Qi**, Accelerate Diagnostics: Investigator, Research support

2135. Direct Disk Diffusion Susceptibility Testing for Gram-negative Bacteria from Blood Cultures: Diagnostic Accuracy and Impact on Antimicrobial Stewardship

Michael Payne, MD, FRCPC[1,2]; Christopher F. Lowe, MD, FRCPC[1,2,3]; Victor Leung, MD, FRCPC[3,4,5]; Marc G. Romney, MD, FRCPC[1,2] and Sylvie Champagne, MD, FRCPC[1,2]; [1]Pathology and Laboratory Medicine, Providence Health Care, Vancouver, BC, Canada, [2]Pathology and Laboratory Medicine, University of British Columbia, Vancouver, BC, Canada, [3]Infection Prevention and Control, Providence Health Care, Vancouver, BC, Canada, [4]Infectious Diseases, University of British Columbia, Vancouver, BC, Canada, [5]Infectious Diseases, Providence Health Care, Vancouver, BC, Canada

Session: 240. Stewardship: Impact of Diagnostics
Saturday, October 7, 2017: 12:30 PM

Background. In order to detect multidrug resistant (MDR) bacteria, our laboratory routinely performs direct susceptibility (DS) testing from positive blood cultures. We conducted a prospective study to determine the accuracy, reporting time (RT), and antimicrobial stewardship impact of DS testing for Gram-negative bacilli (GNB) positive blood cultures.

Methods. From March – December 2016, first time positive blood cultures for GNB were included in the study. Broth from positive blood culture bottles was inoculated to standard media, as well as to Mueller–Hinton agar with cefoxitin (FOX), amoxicillin/clavulanic acid (AMC), ceftriaxone (CRO), ceftazidime (CAZ), ciprofloxacin (CIP) and meropenem (MEM) disks. The CRO and CAZ were adjacent to the AMC disk, which enabled detection of zone-enhancement with extended-spectrum β-lactamase (ESBL) producing organisms. CLSI breakpoints were used to guide interpretations of the DS results. Antibiotic therapy changes, made based on verbal reporting of DS results, were recorded. In order to determine RT, the following time points were recorded: blood culture positivity, reading of DS, and reporting of standardized susceptibilities (SS).

Results. There were 105 unique, monomicrobial cultures consisting of: *E. coli* ($N = 61$), *Klebsiella* sp. ($N = 15$), *Enterobacter* sp. ($N = 9$), *Proteus* sp. ($N = 5$), *Pseudomonas aeruginosa*($N = 5$), and 10 other miscellaneous GNB. RT was reduced from 38 to 22 hours, for SS and DS, respectively. For species with CLSI breakpoints (101 isolates), the major and minor errors for all antibiotics were 2% and 20%, respectively; 17% of isolates were DS-intermediate and SS-susceptible (minor error). CIP disk testing identified all resistant isolates correctly ($N = 21$), as did MEM ($N = 7$). Resistance to CRO/CAZ was correctly identified in 26/27 isolates. DS results changed antibiotic management for 23 patients. Antibiotics were narrowed for 7 patients, and treatment was expanded for 16 patients. For these patients, DS results were available 24 hours before SS.

Conclusion. DS testing is an accurate and rapid method to detect MDR GNB blood culture pathogens and facilitates the optimization of antimicrobial therapy. A relatively high rate of minor errors was detected due to DS disks testing in the intermediate zone for isolates ultimately identified as susceptible by SS.

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

2136. Effect of the Methicillin-Resistant *Staphylococcus aureus* Nasal Polymerase Chain Reaction on Vancomycin Days and Clinical Outcomes in Pneumonia

Natalie Hendon, PharmD and Brian Nelson, PharmD ;NewYork-Presbyterian Hospital, New York, New York

Session: 240. Stewardship: Impact of Diagnostics
Saturday, October 7, 2017: 12:30 PM

Background. Previous studies have demonstrated that the methicillin-resistant *Staphylococcus aureus*(MRSA) nasal polymerase chain reaction (PCR) assay has a high negative predictive value for MRSA pneumonia, and that a negative result may be used to guide antibiotic de-escalation. Despite increasing use in clinical practice, limited data exist regarding the impact of nasal MRSA testing on the duration of MRSA-directed therapy and patient outcomes. This study evaluated the effect of the MRSA nasal PCR result on vancomycin days and clinical outcomes in patients treated for pneumonia with empiric vancomycin therapy.

Methods. A retrospective study of adult inpatients with an MRSA nasal PCR assay ordered between January 2015 and September 2015 was conducted. Patients with confirmed or presumed pneumonia and who were treated with empiric vancomycin therapy were included. Outcomes were compared for patients with a negative vs. a positive MRSA nasal PCR result. The primary outcome was the number of days of vancomycin therapy. Secondary outcomes included restart of vancomycin within 7 days, length of hospitalization, 30-day readmission, 30-day mortality, and predictive value of the MRSA PCR assay. Analyses were performed for the overall cohort and a propensity score-matched cohort.

Results. 324 patients were included. In the overall cohort, the median duration of vancomycin therapy was 3 (interquartile range [IQR] 2–6) days in the negative MRSA nasal PCR group ($n = 282$) and 6 (IQR 4–9) days in the positive nasal PCR group ($n = 42$), $P < 0.01$. In the propensity score-matched cohort, the median number of vancomycin days was 3 (IQR 2–5) and 5 (IQR 4–8.5) in the negative ($n = 137$) and positive ($n = 39$) nasal PCR groups, respectively, $P < 0.01$. This difference persisted in an additional analysis of only patients with no positive respiratory cultures. No significant differences were observed in any secondary outcomes. The MRSA PCR assay demonstrated a positive predictive value of 45% and a negative predictive value of 98%.

Conclusion. A negative MRSA nasal PCR correlated with fewer days of vancomycin therapy without negatively impacting other clinical outcomes. The use of the MRSA nasal PCR assay may reduce the duration of MRSA-active therapy in PCR-negative patients.

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

2137. Influence of T2 Candida Testing for Rapid Diagnosis of *Candida* Infections on Antifungal Stewardship Efforts at a Large Academic Medical Center: A Retrospective, Single-center Study

Justin F Hayes, MD[1]; Orlando D Turner, MD[1]; Todd P McCarty, MD[1,2]; Malia Manning, RPH[3]; Craig J Hoesley, MD[1] and Peter G Pappas, MD[4]; [1]Division of Infectious Diseases, University of Alabama at Birmingham, Birmingham, Alabama, [2]Birmingham VA Medical Center, Birmingham, Alabama, [3]University of Alabama at Birmingham, Birmingham, Alabama, [4]Division of Infectious Disease, University of Alabama at Birmingham, Birmingham, Alabama

Session: 240. Stewardship: Impact of Diagnostics
Saturday, October 7, 2017: 12:30 PM

Background. Antimicrobial stewardship has traditionally focused on the optimal use of antibacterial agents. Much less attention is focused on the optimal use of antifungal therapy (AFT). The high mortality and emergence of resistance in invasive infections due to *Candida* presents a critical opportunity for AFT stewardship. The T2Candida (T2C) panel is a rapid diagnostic test using magnetic resonance to detect 5 different species of *Candida* in whole blood. T2C has a sensitivity of 91%, specificity of 99%, negative predictive value of 99%, and generates results in <6 hours.

Methods. We conducted a retrospective analysis of candidemia cases at the UAB Medical Center in 2015–16. T2C testing was introduced in January 2016. We compared outcomes among patients prior to and following the implementation of routine T2C testing. The focus of the study was to gather data on AFT, time to initiation of therapy(TTT), and overall use of echinocandin patterns during the study period utilizing days of therapy (DOT) /1000 pt days as a parameter.

Results. In 2015 and 2016, 100 patients and 138 patients with candidemia, respectively, were included in the analysis. In 2016, there were 354 T2C valid results; 36 (10.2%) were positive and 318 (89.8%) were negative. The TTT for all candidemic patients in 2015 was 2.02 days vs 1.15 days for candidemic patients in 2016, including all who were blood culture(BC)+ and/or T2C+ ($P < 0.0001$). For patients with candidemia in 2016, TTT in the T2C+ group vs those in whom only BC+ was 0.09 days and 1.69 days, respectively ($P < 0.00001$). Comparing results for 2015 and 2016, we observed echinocandin (ECH) usage of 15.1 and 17.8 DOT/1000 pt days, respectively.

Conclusion. We observed a significant decrease in the TTT for candidemic patients since introduction of the T2C. These results suggest that rapid identification of candidemia may be an important tool for AFT stewardship. We hypothesize that other factors, such as the updated *IDSA Treatment Guidelines for Candidiasis* and increased attention to the early intervention for sepsis campaign, may have influenced the use of ECH, and is supported by the observation that along with the decrease in TTT, we observed a slight increase in the DOT/ 1000 pt days between 2015 and 2016, suggesting more liberal use of empiric ECH.

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

2138. Effect of Rapid Molecular Diagnostic Testing and Antimicrobial Stewardship on Antimicrobial Therapy of Respiratory Infections

Thomas M. File Jr., MD, MSc, MACP, FIDSA, FCCP[1]; Paula Politis, PharmD, BCPS[2]; Michael J. Tan, MD, FACP, FIDSA[3] and George Kallstrom, PhD[4]; [1]Summa