eradication, and reduce the risk of long-term complications. Due to the complexity of S. aureus bacteremia, early involvement of infectious diseases (ID) specialists is strongly recommended.

Methods. This retrospective, single-center study was designed to evaluate the current management of S. aureus bacteremias, including compliance to the elements of the ID high order bundle. Patients 18 years and older who had a positive blood culture for S. aureus were included in this study. Recurrence of S. aureus infection was assessed at 6 months. Data was analyzed to compare patients with and without ID consults.

Results. Eighty-four patients met inclusion criteria. ID consultation resulted in a higher percentage of patients achieving 100% compliance with the bundle elements compared to patients without ID consults (73% vs 25%, respectively; p=0.009). For further breakdown of compliance see Table 1. No statistical difference was detected in recurrence rates (11% vs 33%, respectively; p=0.18) or mortality (8% vs 25%, respectively; p= 0.17) due to the small sample size.

Table 1. Outcomes

| Endpoint | No ID Consult (n=76) | ID Consult (n=73) |
|----------|---------------------|------------------|
| Negative Culture Achieved | 75% (6) | 100% (76) |
| TEE/ITE | 67% (5) | 86% (65) |
| CT, MRI, Xray | 50% (4) | 97% (59) |
| Source Identified | 50% (4) | 92% (70) |
| Source Removed | 50% (5) | 95% (34) |
| Appropriate Placement of New Line | 50% (2) | 92% (52) |
| Patients with 100% Compliance* | 25% (2) | 74% (56) |
| Recurrence Rate* | 33% (2) | 11% (8) |
| Mortality* | 25% (2) | 8% (6) |

*p=0.18, p=0.017, p=0.009

Discussion. All Authors: No reported disclosures

214. Prospective Evaluation of the GenMark Dx eplex® Blood Culture Identification Gram Negative Panel
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Background. The eplex BCID Gram-Negative (GN) panel utilizes electrowetting technology to detect the most common causes of GN bacteremia (21 targets) and 6 antimicrobial resistance genes from positive blood culture bottles. Rapid detection of extended spectrum β-lactamases (ESBL; CTX-M), carbapenemases (KPC, NDM, IMP, VIM, OXA 23/48), and highly resistant bacteria such as Stenotrophomonas maltophilia enables early optimization of antimicrobial therapy.

Methods. In this prospective study, we evaluated the performance of the BCID-GN panel compared to traditional standard of care culture and susceptibility testing with organism identification using the BioMerieux Vitek MS Matrix Assisted Laser Desorption Ionization (MALDI) Time of Flight mass spectrometry. Samples submitted for standard of care testing in Biomerieux BacT/Alert resin FA/FN blood culture bottles for BacT/Alert VIRTUO automated blood culture system with GN bacteria on direct exam (n=108) were included.

Results. All but two GN bacteria identified by MALDI were represented on the BCID-GN Panel (106/108, 98.1%) and most tests (107/108, 99.1%) yielded valid results. Discordant analyses revealed a positive percent agreement (PPA) of 102/105 (97.2%) with 3 false negatives (2 pan-susceptible Enterobacteriaceae, I ESBL E.coli) and a negative percent agreement (NPA) of 105/105 (100%). Consistent with alternative resistance mechanisms, only 8/12 (66.7%) of Enterobacteriaceae with resistance to 3rd generation cephalosporins harbored the CTX-M gene. In contrast, 8/8 (100%) of isolates from samples harboring the CTX-M gene were resistant to 3rd generation cephalosporins.

Conclusion. Of 1 S. maltophilia, 1 Acinetobacter baumannii expressing OXA 23/48, and 8 Enterobacteriaceae expressing CTX-M represent opportunities for early optimization of antimicrobial therapy in 10/108 (9.3%) of samples. The BCID-GN Panel provides rapid accurate detection of resistant gram negative bacteria enabling high quality data driven optimization of antimicrobial therapy.

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