Methods. A total of 54 pediatric PBC (33 spiked, 21 fresh) were tested within 8 hours of positivity (30 Gram-positive, 20 Gram-negative, 2 yeast, 2 off-panel species). A 0.5 mL aliquot was placed in an Accelerate Phenotest® BC kit sample vial and run on AXDX. Current laboratory methods for ID (Biofire FilmArray BCID, VITEK® 2, or MALDI-TOF) and AST (VITEK® 2 or Microscan) were run in parallel as comparison. For the turbidity (SN) and spectrophotometry (SP) methods for both the turbidity and Prompt methods of inoculation. MSDGN panels were incubated at 35 ± 2°C and read on the WalkAway System, the autoSCAN-4 instrument, and read visually. Read times for the MSDGN panels were at 16–20 hours. FDA breakpoints (µg/mL) used for interpreting MIC results for Enterobacteriaceae was 2/4 S, 4/8 R, and 8/16 R.

Conclusion. The Accelerate Phenol™ system demonstrated high performance for both ID and AST of PBC much faster than current laboratory methods. Implementing this system will allow laboratories to provide clinicians with actionable results much sooner, enabling them to optimize therapy earlier to improve patient outcomes.

Disclosures. A. J. Blaschke, BioFire Diagnostics LLC, collaborator, has intellectual property in BioFire Diagnostics through the University of Utah and Investigator, licensing agreement or royalty and Research support

2027. Reproducibility of Cefotaxime/Tramocarb MEC Results for Enterobacteriaceae and Pseudomonas aeruginosa Using MicroScan Dried Gram-negative MIC Panels

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Methods. MSDGN panels were evaluated for reproducibility at three sites. For each panel, a total of 17 on- and off-panel organisms were tested on MSDGN panels at each site (14 Enterobacteriaceae and 3 Pseudomonas aeruginosa). Three replicates of each panel were tested each day for three days using the turbidity and Prompt methods of inoculation. MSDGN panels were incubated at 35 ± 2°C and read on the WalkAway System, the autoSCAN-4 instrument, and read visually. Read times for the MSDGN panels were at 16–20 hours. FDA breakpoints (µg/mL) used for interpreting MIC results for Enterobacteriaceae was 2/4 S, 4/8 R, and 8/16 R.

Results. Reproducibility among the three sites was greater than 95% for all read methods for both the turbidity and Prompt inoculation methods.

Conclusion. This multicenter study showed that Cefotaxime/Tramocarb MEC results for Enterobacteriaceae and P. aeruginosa obtained with the MSDGN panel are highly reproducible.
2029. Evaluation of the Accelerate Pheno™ System for the Identification and Antimicrobial Susceptibility Testing of Gram-negative Bacteria, Compared with Conventional Laboratory Testing

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**Background.** The current standard technique for diagnosis of bloodstream infection (BSI) is through the identification of micro-organisms using automated blood culture systems and subsequent phenotypic antimicrobial susceptibility testing (AST) techniques that require 24–48 hours to generate results. The aim of this study was to evaluate the Accelerate Pheno™ system (AXDX), which utilises fluorescent in situ hybridisation and morphokinetic cellular analysis to identify bacteria from positive blood cultures and perform AST in less than 7 hours. A five-center, prospective study showed that Cefazidime/Avibactam MIC results for Enterobacteriaceae and P. aeruginosa obtained with the MSDGN panel are highly reproducible.

**Methods.** AXDX results were compared with those from susceptibility testing from plate subculture 18–24 hours later. Antibiotics not reported on blood isolates from this card including were not in the analysis. To increase the number of antibiotic resistant-organisms (ARO), 35 highly resistant GNB were seeded into BC and processed as above.

**Results.** Clinical specimens tested included 80 E. coli (EC), 14 K. pneumoniae, 5 K. oxytoca, 3 E. cloacae, and 2 P. aeruginosa. 2 P. mirabilis, and one each of S. marcescens, S. typhi, P. vulgaris, and R. planticola. DST results were available on average 24.8% (95% CI 23.4–26.2) hours earlier. Of 235 antibiotic resistant results, there were 2 very major errors (VME) (0.85%) with DST – both in EC against cefepime (CPE). These results were flagged as possible ESBL producers based on CTAZ or ceftriaxone (CTRX) DST. Two major errors (MAE) occurred with trimethoprim-sulfamethoxazole (0.85%). Minor errors occurred in 17 cases across all dilution of the standard MIC. Of all the other tests resulted in categorical or essential agreement. Of all 310 antibiotic resistant results. In this set, there were 10 VME (0.32%); including 1 amikacin, 2 CPM, 1 CTRX, 6 merope-

2030. Evaluation of Vithek2® Direct Susceptibility Testing (DST) of Gram-negative Bacteria (GNB) from Positive Blood Cultures (+BC)

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**Background.** Delayed reporting of antibiotic susceptibility results impacts the treatment of patients with bacteremia. We evaluated the sensitivity and specificity of DST of GNB from pellets used for rapid identification (ID) directly from +BC. Blood culture pellets from 5 pellets from 3 BC in our lab have been used for the direct speciation of bacteria. For 109 samples identified as aerobic GNB on these pellets, the remainder of the sample was suspended in 0.45% NaCl to a standard density of 0.5 McFarland. Samples were then processed using Vithek2® N216 cards according to the manufacturer’s instructions. Results were compared with those from susceptibility testing from plate subculture 18–24 hours later. Antibiotics not reported on blood isolates from this card including were not in the analysis. To increase the number of antibiotic resistant-organisms (ARO), 35 highly resistant GNB were seeded into BC and processed as above.

**Methods.** The Accelerate PhenoTest™ BC kit was used to test 15 gram-negative isolates with a range of AST profiles, from simulated blood cultures. Isolates included 5 target organisms (K. oxytoca, K. pneumoniae, E. coli, P. aeruginosa, and S. murcescens) and 5 non-target organisms. AXDX results were compared with MALDI-ToF MS identification and BD Phoenix™ automated AST results. To evaluate the Accelerate Pheno™ system (AXDX), which utilises fluorescent in situ hybridisation and morphokinetic cellular analysis to identify bacteria from positive blood cultures and perform AST in less than 7 hours. A five-center, prospective study showed that Cefazidime/Avibactam MIC results for Enterobacteriaceae and P. aeruginosa obtained with the MSDGN panel are highly reproducible.

**Results.** Reproducibility among the three sites was greater than 95% for all read methods for both the turbidity and Prompt inoculation methods. A five-center, prospective study showed that Cefazidime/Avibactam MIC results for Enterobacteriaceae and P. aeruginosa obtained with the MSDGN panel are highly reproducible.

**Conclusion.** DST from BC produces reliable results 24 hours sooner than standard testing. Isolates flagged for potential resistance to third generation cephalosporin and/or carbapenem on DST need further testing.

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

2031. Prospective Evaluation of Accelerate Pheno® System (AXDX) Version 1.1 for Reducing Turn-Around-Time (TAT) in Identification/Antimicrobial Susceptibility Testing (ID/AST) of Gram-Negative Bacilli (GNB) from Positive Blood Cultures (+BC) using AXDX PhenoTest® BC Kits

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**Background.** DST from BC produces reliable results 24 hours sooner than standard testing. Isolates flagged for potential resistance to third generation cephalosporin and/or carbapenem on DST need further testing.

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