Impact of Accelerate Pheno™ System (AXDX) on Time to Antimicrobial Stewardship Intervention (ASTEW-I) in Patients with Gram-negative Bloodstream Infections (BSIs)

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Background

- Rapid diagnostic tests (RDTs) in combination with antimicrobial stewardship interventions have been shown to improve antimicrobial therapy-related outcomes in patients with BSIs.1,2
- AXDX has potential advantage over many approved RDTs in ability to provide both rapid pathogen identification (ID) and antimicrobial susceptibility test (AST) information directly from positive blood cultures.
- IPD (matrix-assisted laser desorption ionization/time-of-flight (MALDI-TOF)) batched test results reported in infection ID system were used to guide patient-specific antimicrobial therapy interventions in 2,540 bloodstream infections (BSIs) identified since January 2015.

Methods

- AXDX has potential advantage over many approved RDTs in ability to provide both rapid pathogen identification (ID) and antimicrobial susceptibility test (AST) information directly from positive blood cultures.
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Results

- AXDX-guided antimicrobial therapy interventions in patients with Gram-negative BSIs have resulted in significantly shorter time to potential antimicrobial therapy compared to our institution's SOC.
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Conclusions

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Limitations

- Small sample size
- Our institutional SOC (i.e., batched testing, once-daily VITEK® 2 AST results) may limit generalizability.

References


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