Comparison of Accelerate (AXDX) BC PhenoTest™ results from Gram-negative bacilli (GNB) Parallel-seeded to FA-Plus Blood Culture Bottles (BCB) incubated in bioMérieux BacT/Alert-3D and VIRTUO systems

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Introduction

Providing organism-specific identification (ESI) and associating environmental resistance traits (ESART), PhenoTest™ results are essential for optimizing management strategies and infection control. In the present study, we examined the performance of PhenoTest™ and BacT/Alert-3D and VIRTUO systems in identifying and characterizing Gram-negative bacilli. A unique feature of PhenoTest™ is the ability to rapidly and accurately determine environmental resistance traits, which can guide empirical treatment decisions. The present study aimed to evaluate PhenoTest™ and BacT/Alert-3D and VIRTUO systems in identifying and characterizing Gram-negative bacilli from clinical samples.

Methods

From the 74 original parallel-seeded blood culture bottle pairs incubated in the BacT/Alert-3D and VIRTUO 3D systems, AXDX-ID were reported from 73 (98.6%) systems respectively (p=0.71), while AXDX-ID plus associating environmental resistance traits were reported from 67 (91.0%) systems, respectively. The index and PhenoTest™ results were performed using BacT/Alert-3D with BacT/Alert 3D v.2.2 (Siemens) and VIRTUO 3.1 (bioMérieux). All AXDX-ID agreed with PhenoTest™. The present study aims to evaluate PhenoTest™ and BacT/Alert-3D and VIRTUO systems in identifying and characterizing Gram-negative bacilli.