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P2205 Assessment of the new VITEK 2 yeast susceptibility test (AST-YS08) against bloodstream *Candida* isolates with and without molecular resistance mechanisms

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Background: Both the emergence of azole and echinocandin resistance and the mechanisms underpinning this resistance have recently been examined in bloodstream *Candida* isolates. We evaluated the performance of the VITEK 2 yeast susceptibility test (AST-YS08; bioMérieux, Marcy d'Etoile, France) using a panel of *Candida* bloodstream isolates with and without known molecular resistance mechanisms.

Materials/methods: Fluconazole resistance (FR), fluconazole susceptible-dose-dependent (F-SDD), fluconazole susceptibility (FS), micafungin resistance (MR), and micafungin susceptibility (MS) were determined using species-specific clinical breakpoints by the Clinical and Laboratory Standards Institute (CLSI) M27-A3 microdilution method. We assessed the ability of VITEK 2 (AST-YS08) to detect azole susceptibility in 143 bloodstream *Candida* isolates, including 58 *Candida parapsilosis* isolates (30 FR or F-SDD isolates harboring the Y132F mutation in Erg11p and 28 FS isolates without *ERG11* mutations) and 71 *Candida glabrata* isolates (33 FR isolates harboring the *PDR1* mutation and 38 FS isolates without the *PDR1* mutation). Echinocandin resistance was assessed using 6 MR isolates with *FKS* mutations (one *Candida albicans*, one *Candida tropicalis* and four *C. glabrata* isolates) and 8 MS isolates without *FKS* mutations.

Results: According to the VITEK 2, 23 (76.7%), 6 (20.0%), and 1 (3.3%) of the 30 *C. parapsilosis* (FR or F-SDD) mutants exhibited fluconazole minimum inhibitory concentrations (MICs) of ≥8 µg/ml (FR), 4 µg/ml (F-SDD), and ≤2 µg/ml (FS), respectively, and all 28 FS isolates showed fluconazole MICs ≤2 µg/ml. We also found that all 48 *C. parapsilosis* isolates showed susceptibility to voriconazole. The AST-YS08 did not provide fluconazole MIC data for any of the *C. glabrata* isolates, probably because all *C. glabrata* are regarded as FR or F-SDD. However, of the 33 FR *C. glabrata* mutants, 32 exhibited voriconazole MICs of ≥1 µg/ml (epidemiological cutoff value: 0.5 µg/ml), whereas all 38 FS *C. glabrata* isolates showed voriconazole MICs ≤ 0.5 µg/ml. The VITEK 2 AST-YS08 identified all MR and MS isolates using species-specific CBPs for micafungin.

Conclusions: This study provides the first data on the good performance of VITEK 2 AST-YS08 for the detection of azole- or echinocandin-resistant *Candida* bloodstream isolates with known molecular resistance mechanisms.