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O0938 Multicentre determination of CD101 (rezafungin) susceptibility of Candida species by the EUCAST method

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Background: Rezafungin (CD101) is a new long-acting echinocandin allowing weekly dosing, currently undergoing phase II clinical trials for candidaemia and invasive candidiasis. Susceptibility reported to-date has included relatively limited data determined by EUCAST methodology. The aim of this study was to establish comprehensive EUCAST MIC data against clinical *Candida* isolates from the five most common species (*C. albicans*, *C. glabrata*, *C. krusei*, *C. parapsilosis* and *C. tropicalis*) for EUCAST epidemiological cut-off (ECOFF) selection and for later clinical breakpoint setting.

Materials/methods: The susceptibility of 2,018 European clinical *Candida* isolates were determined by EUCAST methodology (E.Def 7.3.1) at four European laboratories (~100 isolates per species per laboratory). In parallel, eight control strains were repeatedly tested (~10 times in each laboratory). Wild-type upper limits (WT-ULs), defined as the MIC value where the wild-type distribution ends, were determined following the principles for EUCAST ECOFF-setting visually and statistically using the ECOFF finder programme (with 97.5% and 99% endpoints) and the derivatization method.

Results: The lowest rezafungin MICs (GM-MIC, MIC range (mg/L)) were observed for *C. albicans* (0.016, 0.002-0.125); the highest were for *C. parapsilosis* (1.657, 0.063->4). MICs for the remaining species were in between (GM-MICs 0.048-0.055). Identical visual and statistical WT-UL were determined for *C. glabrata* (0.125), *C. krusei* (0.125), *C. parapsilosis* (4) and *C. tropicalis* (0.25). If adopting these WT-ULs for classification into WT and non-WT populations, 1/413 *C. glabrata* (0.24%), 1/402 *C. krusei* (0.25%), 1/398 *C. parapsilosis* (0.25%) and 1/402 *C. tropicalis* isolates (0.25%) were categorised as non-WT, all of which derived from laboratory 1. For *C. albicans,* unexplained laboratory variation was observed (WT-UL: 0.063-0.125 in laboratory 1-2 versus 0.016 in laboratory 3-4). A similar systematic difference was observed comparing MICs for the three *C. albicans* QC strains obtained in laboratory 1-2 to those in 3-4 (e.g. for *C. albicans* ATCC 64548 the modal MIC for repetitive testing was 0.016 in laboratories 1-2 but 0.004 in laboratories 3-4) but not for the non-*albicans* QC strains.

Conclusions: Rezafungin displayed species-specific activity similar to other echinocandins. Interlaboratory variation was observed for the most susceptible species (*C. albicans* clinical and QC strains), which warrants further investigation.