

ABSTRACT

STANDARDIZATION OF A RAPID FLOW CYTOMETRY METHOD FOR YEAST ANTIFUNGAL SUSCEPTIBILITY USING NCCLS MACRODILUTION AND MICRODILUTION M-27A METHOD AND THE ANTIFUNGALS CASPOFUNGIN AND FLUCONAZOLE

Flow Cytometry using Acridine Orange fluorescent dye provides accurate determinations of yeast susceptibility to antifungal drugs with a faster turnaround time than the NCCLS M27-A method. The purpose of this study is to standardize a Flow Cytometry method. This method would improve patient care by providing accurate results in 6 to 9 hours instead of 48 hours as seen with the NCCLS M27-A method. Eight *Candida* species from 68 clinical samples from Central California were tested for resistance to Fluconazole and Caspofungin. NCCLS Microdilution or Macrodilution methods were performed according to the M27-A protocol, and the Minimal Inhibition Concentration (MIC) values were compared to values obtained with the Flow Cytometry method. Flow Cytometry MICs for the *Candida* species tested agreed with NCCLS tests within plus or minus 2 dilutions, indicating that the Flow Cytometry method is valid. No resistance to Caspofungin was detected, although some isolates were resistant to Fluconazole.

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