

**TITLE:** SENSITIVITY TEST FOR ANTIFUNGALS IN FRONT OF CLINICAL ISOLATES OF *Candida albicans* OF TUBERCULOSIS AND/OR HIV PATIENTS

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**ABSTRACT:**

Tuberculosis (TB) is an infectious-contagious disease caused by a bacterium called *Mycobacterium tuberculosis* and that affects a portion of individuals in underdeveloped countries like Brazil. TB / HIV co-infection is responsible for the increased incidence, prevalence and mortality of TB, in addition to candidiasis, an opportunistic mycosis, which, although commensal, in immunocompromised patients may present resistance to certain antifungal agents. Thus, the present study aimed to evaluate the susceptibility profile of four clinical isolates (GCM, CA, IJST and JM) of *Candida albicans* from TB and / or HIV patients admitted to a public hospital in the city of São Luís, against antifungal agents from the determination of the Minimum Inhibitory Concentration (MIC). Four drugs of clinical use used were: Fluconazole (128-0,25 µg / mL); Voriconazole (16-0.03 µg / mL); Itraconazole (16-0.03 µg / mL); Amphotericin B (16-0.03 µg / mL). The inoculums were prepared with the isolates suspended in saline (NaCl) using the Mc Farland 0.5 scale ( $10^6$  cells / ml), followed by a 1: 1000 dilution in RPMI to obtain the inoculum  $10^3$  cells / ml. The 96 well microplates incubated were at 37 ° C for 48 hours. Afterwards, the visual reading performed was. The MIC of the four antifungals against the clinical isolates of *Candida albicans* were sensitive, CGM at 0.5 µg/ml for Fluconazole, 0.12 µg/ml for Voriconazole, 0.25 µg/ml for Itraconazole and 0.25 µg/ml for amphotericin B; CA at 0.5 µg/ml for Fluconazole, 0.25 µg/ml for Voriconazole, 0.12 µg/ml for Itraconazole and 0.12 µg/ml for Amphotericin B; IJST at 0.25 µg/ml for Fluconazole, 0.12 µg/ml for Voriconazole, 0.12 µg/ml for Itraconazole and 0.5 µg/ml for Amphotericin B; JM at 0.25 µg/ml for Fluconazole, 0.25 µg/ml for Voriconazole, 0.25 µg/ml for Itraconazole and 0.25 µg/ml for Amphotericin B. Therefore, we observed that none of the clinical isolates were resistant to antifungals and showed low minimum inhibitory concentrations. Therefore, through these results, the administration of the drugs will not require high concentrations for the treatment of the patient, which would possibly compromise the individual's immunity and thus hamper their prognosis.

**Key words:** tuberculosis, HIV, candidiasis, *Candida albicans*

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