

An experimental model for study of Candida survival and transmission in human volunteers.

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In order to determine the potential for cross-transmission of *Candida* spp. between health-care workers and patients, the survival of clinical isolates of five species of *Candida* on the palms of human volunteers was tested. One hundred microliters of a McFarland 1.0 density suspension (5×10^5 cfu) from an overnight culture of *Candida albicans*, *Candida krusei*, *Candida parapsilosis*, *Candida tropicalis* and *Candida glabrata* was used as inoculum. The degree of hydrophobicity of the different *Candida* species was also tested and did not influence the survival. The half-lives were brief, being 9.5, 12.4, 7.4, 12.8, 9.6 min for *Candida albicans*, *Candida krusei*, *Candida glabrata*, *Candida parapsilosis*, and *Candida tropicalis*, respectively, but at 45 min 2.6×10^3 to 3×10^4 organisms remained on the hands. Survival of *Candida albicans* for as long as 24 h on inanimate surfaces was observed. Transmission from one hand to a second hand occurred in 69% of the experiments and from the first to a third hand in 38%. Transmission to and from inanimate surfaces was successful in most of the experiments (90%). This experimental model aids in the biological study of *Candida* spp. and suggests some of the potential mechanisms of transmission.

Candida/*PHYSIOLOGY Candidiasis/*TRANSMISSION Disease Transmission, Professional-to-Patient Hand/MICROBIOLOGY Human Support, Non-U.S. Gov't JOURNAL ARTICLE

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