

recent reports²⁶ describing the emergence of caspofungin resistance raise concerns about the emergence of caspofungin-resistant *Candida* spp. The knowledge of recent, local epidemiologic trends and susceptibility to antifungals is thus critical in this context.

Prevention and Prophylaxis

Given the increased morbidity and mortality due to IC and the difficulties in diagnosing and treating these infections, effective preventive strategies have a better chance of decreasing mortality than advances in therapy. Preventive measures to combat nosocomial candidemia including improved hand hygiene, optimal catheter placement and care, and prudent antimicrobial use to prevent morbidity and mortality due to nosocomial candidemia. Use of prophylactic antifungal use is debatable. Several recent studies^{27,28,29} indicated that high-risk critically ill patients may benefit from antifungal prophylaxis. However, an important issue remains how to identify those patients who are likely to benefit from prophylaxis without unnecessarily exposing patients who are at either low or no risk of developing IC, to antifungal agents. According to a Cochrane review on antifungal agents for the prevention of fungal infections in non-neutropenic critically ill patients³⁰, ninety four patients should be treated with fluconazole to prevent one *Candida* infection. Whether antifungal prophylaxis may have an impact on mortality remains a matter of debate. The guidelines of the Infectious Diseases Society of America on treatment of candidiasis³¹ discourage routine use of antifungal prophylaxis in the general ICU setting. However, it was suggested that targeted prophylaxis with fluconazole should be considered in solid-organ transplant recipients, neutropenic patients and in high-risk patients in adult ICUs units with a high incidence of invasive candidiasis with a cumulative incidence of $\geq 10\%$.

CONCLUSION

Invasive candidiasis is the most frequent invasive mycosis in critically ill patients. Changing epidemiology with increased non-*albicans* *Candida* spp., nonspecific risk factors, insidious clinical presentation, and late diagnosis with culture-based methods coupled with the fact that no class of antifungal agent is immune to the development of resistance, are major challenges in the management of invasive candidiasis. Targeting patients with a high-risk profile, development of new noninvasive diagnostic tools for early diagnosis and therapy, and optimization of management strategies (i.e., prophylaxis, preemptive therapy, or empirical therapy) alongwith availability of new antifungal agents may allow us to overcome the ever-increasing threat of *Candida* infections.

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