

## Risk of fungal Infections in hospitalized patients at the Intensive Care Unit

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**Introduction:** Opportunistic fungi are as a serious nosocomial threat, especially among hospitalized patients in ICU. Invasive candidiasis and aspergillosis have been manifold increase in hospitalized patients during the past 3 decades and their attributable mortality is 20% to 80% depending on the patient conditions. Unfortunately, despite recent advances in diagnostics and antifungal therapies, response rates remain suboptimal and imposes a substantial financial burden.

**Materials and Methods:** In this study, along with a review of the literature on fungal Infections and ICU patients in the published articles in virtual media and authoritative books of the last 10 years. The result of information about the role of fungi in ICU patients were presented .

**Results:** Candida species is the fourth most common cause of bloodstream infection acquired in the hospital, and the attack rate appears even higher among patients in the ICU. Invasive aspergillosis, have become more common, in transplant recipients and patients with hematologic malignancies and associated severe neutropenia. Other fungi such as Fusarium, Scedosporium and Zygomycetes are associated with poor outcomes in ICU. These pathogens infect most body systems, from mild mucocutaneous disease and funguria to serious deep-seated infections such as fungemia, meningitis, endocarditis, and intra-abdominal infections. Several groups in ICU such as patients with kidney failure, hemodialysis, central venous or urinary catheter, major surgery, burns, transplant recipients and malignancy have risk factors for invasive fungal infection.

**Conclusion:** Numerous improvements on the management of fungal disease in ICU achieved. Advances in fungal diagnostics (galactomannan and beta-glucan assay) and antifungal susceptibility testing and new drugs (echinocandins) could reduce the mortality caused by them.

**Key words:** Intensive Care Unit, ICU, fungal Infection, candidiasis, aspergillosis, emerging disease

