Abstract:

The frequency of systemic fungal infections have increased significantly in the past decade. Opportunistic systemic fungal infections are increasingly posing difficult management challenges to the clinician. To the aid of the clinician, new systemic antifungal agents have also emerged in the last two decades. To effectively utilise the old and new antifungal agents, a clear understanding of their clinical pharmacology and therapeutic applications is needed. Amphotericin-B remains effective therapy in many severe disseminated mycoses including candidaemia and cryptococcosis but problems with toxicity (especially nephrotoxicity), resistances, and non-availability of oral form for long-term maintainance therapy in the immunocompromised patient create important drawbacks. Flucytosine is not effective when used alone and is only used in combination with amphotericin-B in cryptococcal and candidal meningitis. Ketoconazole is available in oral form for systemic antifungal use and is an effective therapy for endemic mycoses, dermatomycoses and oropharyngeal candidiasis. However, it is not satisfactory therapy for deep seated mycoses in the immunocompromised patient. Itraconazole is a new triazole antifungal with better pharmacokinetic profile than Ketoconazole and is currently the drug of choice in most non-life threatening endemic mycosis and is also useful in some deep opportunistic mycoses. Fluconazole is also new triazole antifungal which has the best pharmacokinetic profile and least incidence of adverse effects among all the systemic antifungal available today. It is a first-line therapy for deep candidal and cryptococcal infections in both the immunocompetent and immunocompromised. It is also a first-line maintainance therapy for these infections in the immunocompromised