



POSTER

Antifungal prophylaxis in hematopoietic stem cell transplantation recipients: drug use evaluation at Vietnam National Institute of Hematology and Blood transfusion

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Abstract

Background: Hematopoietic stem cell transplantation (HSCT) recipients were known to be in high risk of fungal infection. However, not all HSCT patients need antifungal prophylaxis. The aim of this study was to describe the characteristics of the use of antifungal prophylaxis in hematopoietic stem cell transplantation recipients and to evaluate the appropriateness of use.

Methods: In this observational prospective study, adult hematopoietic stem cell transplantation recipients without using antifungal treatment were recruited from start of stem cell transfusion in Vietnam National Institute of Hematology and Blood Transfusion (from April to December 2016) to end of antifungal prophylaxis or start of antifungal treatment. Appropriateness was defined based on National Comprehensive Cancer Network (NCCN) guidelines. Clinically significant Drug-drug interactions related to antifungals were defined based on Hansten and Horn's Drug interaction and management 2013.

Results: 38 patients (mean age: 35.7 ± 12.0 ; 57.9% male) were admitted, included 21 autologous and 17 allogeneic HSCT recipients. After HSCT, 3 deaths, 1 to ICU, 1 IFI. Azoles prophylaxis was given to 100% of patients with median 17.5 days (13 - 47.5). Fluconazole was the most used antifungal agents, in 94.7% of patients and 74.5% of episodes. 10 patients had been changed antifungal agents. Indication was appropriate in 44.7%, 0% in autologous and 100% in allogeneic group. In patients with appropriate indication, choice of antifungal agents was 100% appropriate. 100% of patients used inappropriate dosage, mostly lower than recommended dosage with azoles. 12.7% had appropriate prophylactic time. Potential drug-drug interactions were identified in 92.1% of patients. Most frequent interactions involved azoles-diazepam (80.4% of episodes) and azoles-immunosuppressive drugs (49% of episodes).

Conclusion: Our evaluation revealed a high proportion of inappropriate of antifungal prophylaxis. An antifungal stewardship programme is needed to strengthen rational use of antifungal in this specific circumstance.

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Keywords

Antifungal prophylaxis; Drug use evaluation; Hematopoietic stem cell transplantation

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