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Abstract (poster session)

### Effectiveness of once-weekly fluconazole on the incidence of invasive candidiasis in a reverse-isolation haematological unit

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**Objectives:** Fluconazole 400mg once daily was recommended as first line prophylactic agent for patients with acute leukemia and for those receiving allogeneic HSCT. Since 2001 our institutional policy for hematological high risk patients has been 400mg fluconazole once weekly despite the fact that doses below 400mg/d have not shown a significant benefit in preventing invasive fungal infections. Our study aimed to evaluate the impact of this policy on incidence of invasive candidiasis (IC) and the potential of emergence of resistance to fluconazole. **Methods:** Patients received antifungal prophylaxis with fluconazole 400mg weekly if they underwent high-dose chemotherapy, allogeneic or autologous stem cell transplantation. Antifungal prophylaxis was routinely stopped when antifungal treatment for invasive fungal infection (IFI) was initiated. Our hematological unit (HU) is located in a separate wing, equipped with laminar air flow, has restricted access and dedicated staff. Data from patients were prospectively recorded by standardized case report forms. IC was defined as isolation of *Candida* spp. from blood or normally sterile compartments. **Results:** From January 2003 until December 2010 a total of 1358 patients were treated in the HU, among them, 563 underwent allogeneic or autologous transplantation. 56 *Candida* spp. were isolated from all submitted specimens, among them 28 were regarded as invasive and 28 as colonization. Identification of *Candida* spp. from this unit - including also non-IC isolates - remained stable over the whole period of eight years with an average of 1.71 /1000 patientdays (PD) (all candida isolates) and 0.86/1000 PD for IC, respectively ( $p < 0.05$ ). 55 of 56 strains were tested for fluconazole susceptibility. There was no significant increase of non-albicans *Candida* spp. or an increase of fluconazole resistant isolates of *Candida* spp. ( $p < 0.05$ ). There was no trend for increased resistance over the study period (figure). **Conclusion:** This policy of once weekly fluconazole did not result in emergence of *Candida* resistance or a shift towards non-albicans *Candida* spp. and might therefore be considered as alternative to once daily fluconazole.

