

**eP251**

**ePoster Viewing**

**Antifungal drug susceptibility and resistance**

**Antifungal susceptibility and outcome of invasive fungal infection: a 10-year retrospective electronic chart review**

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**Objectives:** Invasive fungal infection have been increasing over past decades. The increase of susceptible patients profiting from medical progress, with the growing number of invasive procedures, advances in life-support systems, new dimensions of aggressive immunosuppressive and immunomodulatory treatments, widespread use of broad-spectrum antibiotics, and an increasing proportion of susceptible elderly patients. The aim of the present study is to investigate whether routine antifungal susceptibility testing is associated with the outcome of invasive fungal infection expressed by the crude mortality rate.

**Methods:** All patients of the General Hospital of Vienna with invasive fungal infection within the period from January 1st 2001 through and including September 30th 2013 were enrolled. Data collected from the RDA/ArchiMed Invasive Mycoses ("Pilzregister") database of the Department of Hospital Hygiene and Infection Control and the Comprehensive Cancer Center enrolls all patients with invasive fungal infection involved within the study period January 2001 to September 2013. Antifungal minimal inhibitory concentration (MIC) of the fungal pathogens isolated that were determined at the time of infection, are extracted from the Microbiology date and linked to the "Pilzregister"-dataset. To assess the association between minimal inhibitory concentrations of antifungal agents and outcome the Kruskal-Wallis rank-sum test for was performed and the chi-squared test was calculated. A  $p < 0.05$  was considered as significant.

**Results:** Overall, 1118 patients were enrolled in the registry "Pilzregister". In 376 patients MICs of the respective pathogen were available. Of these 77 patients died within a median of 30 days after onset of IFI. The crude mortality rate was 20.4%. The mean MICs were as follows: amphotericin B 0.48 mg/l and 0.45 mg/l, fluconazole 5.15 mg/l and 2.83 mg/l, caspofungin 0.23 mg/l and 0.16 mg/l, itraconazole 1.09 mg/l and 0.3 mg/l, and posaconazole 1.54 mg/l and 2.08 mg/l for survivors and non-survivors, respectively. MICs were significantly different for fluconazole only. A significant correlation between MICs and crude mortality was not observed.

**Conclusion:** Overall, antifungal MIC testing was not associated with the crude mortality rate. Clinical factors, like age, surgery performed etc., are considered to influence outcome. However, antifungal resistance testing is valuable basis to pursue the course of antifungal treatment irrespective any side effects or drug interactions.