

P1015

Abstract (poster session)

**Impact of structured personal on-site patient education on low posaconazole plasma concentrations: a cohort study**

W. Duettmann, J. Wagner, B. Huber-Krassnitzer, H. Schmidt, R. Raggam, F. Prüller, P. Neumeister, T. Valentin, I. Zollner-Schwetz, A. Wölfler, R. Krause, M. Hoenigl\* (Graz, AT)

**Objectives:** Low posaconazole plasma concentrations (PPCs) are associated with breakthrough invasive mould infections (IMI) among patients with hematological malignancies. This study evaluates the influence of a structured personal on-site patient education on insufficient PPCs. **Methods:** The study was conducted from July 1st to October 31st at the Division of Hematology, Medical University of Graz, Austria. PPCs were measured in all patients with hematological malignancies receiving the drug prophylactically. The first PPC was measured 4 days after initiation of posaconazole and then repeated twice weekly (in case of sufficient PPCs once weekly). Concentrations above the target of 0.5 mg/L were defined as satisfactory and those below the target as low PPCs. In patients with low drug levels a structured personal on-site education concerning the intake of posaconazole (e.g intake with fatty and acid food, general importance of sufficient PPCs) was performed (duration 5-10 minutes). **Results:** 127 PPCs were measured in 28 patients hospitalized at the Department of Hematology during the study period. Initial PPCs were sufficient in 15 (53.6%) and low in 13 (46.4%) patients. In those 13 patients a personal on site education was performed; in five of those 13 patients antifungal therapy was changed in clinical routine to another antimycotic drug before a follow up PPC could be obtained and patients were therefore excluded. In five (62.5%) of the remaining eight patients the structured personal on-site education led to sufficient levels, while in three (37.5%) PPCs remained low after education and posaconazole had therefore to be changed to another antifungal drug. No patient experienced posaconazole side effects and there was no breakthrough invasive fungal infection. All patients except one who died of his underlying disease survived at 6 weeks. **Conclusion:** In patients with low PPCs a structured personal on site education led to sufficient levels in more than 60% of patients. Therefore structured personal education seems to be a promising tool to increase low PPCs. Further and bigger studies are necessary to confirm our findings.