POSTER ABSTRACTS

203. Optimization of Posaconazole (PCZ) Dosing with Multi-disciplinary Therapeutic Monitoring (TDM) Protocol

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Background. PCZ is a broad spectrum azole antifungal used for prophylaxis in high risk patients and treatment of invasive fungal infections, with activity against *Candida spp.*, *Aspergillus spp.,* and other invasive molds. TDM of PCZ is recommended to ensure efficacy with a goal therapeutic serum concentration (TC) of >700 ng/ml, some studies support a goal of >500 ng/ml for prophylaxis. Two oral formulations of PCZ are available; unlike the suspension the absorption of the tablet does not depend on an acidic environment or high fat meals. Therefore, the preference is to use the tablets although some patients may still require the suspension if unable to receive solid oral dosage forms. With an increase in utilization of PCZ at our institution we implemented a TDM protocol that recommended dietary consults for all patients receiving PCZs in which a registered dietician advises changes in fat intake or nutritional supplements and provides education to patients regarding dietary strategies to optimize absorption. We evaluated the effect of this TDM protocol on initial steady state PCZs levels.

Methods. All adult patients receiving PCZs at treatment or prophylactic doses following implementation of the TDM protocol between December 1, 2012-January 10, 2014 with a PCZ random concentration obtained were included.

Results. 68 patients received PCZs, 76.2% of those receiving PCZs for prophylaxis (32/42) and 77% of those receiving PCZs for treatment (20/26) had TCs, respectively. Median time to serum concentration was 7 days and 88% of patients had a dietician note in their chart indicating provision of patient education. Three patients (7%) receiving PCZs for prophylaxis were changed to alternative therapeutic antifungal therapy following a subtherapeutic level, while 5 patients (11.9%) receiving PCZs for prophylaxis with a subtherapeutic level were changed to alternative antifungal prophylaxis.

Conclusion. For patients requiring PCZs, strategies to improve absorption such as ensuring that doses are taken with a high fat meal are pertinent in achieving TCs. Incorporating dietary consultation in a PCZ TDM protocol resulted in a large of proportion of patients receiving the PCZ suspension achieving adequate levels for both prophylaxis and treatment.

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