POSTER ABSTRACTS

204. Voriconazole Restriction in Addition to Therapeutic Drug Monitoring (TDM) Protocol Results in Optimized Dosing

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Background. Voriconazole (VRC) is a broad spectrum antifungal with activity against several medically important pathogens including *Candida spp.* and *Aspergillus spp*., often utilized as a prophylactic agent in high risk patient populations and in the management of invasive fungal infections. VRC TDM is recommended by national guidelines to ensure safety and efficacy, with a recommended therapeutic trough range of 2-5.5 mcg/dL. We previously found, prior to the implementation of a TDM protocol in addition to antimicrobial stewardship (ASP) restriction and post-prescriptive review for all patients receiving therapeutic VRC, only 44% of patients achieved adequate troughs. We sought to evaluate our success rate with achieving therapeutic trough concentrations (TTC) following the implementation of a TDM protocol in addition to targeted ASP restriction and monitoring efforts.

Methods. All adult inpatients receiving therapeutic voriconazole for either presumed or documented invasive fungal infections, with a serum trough concentration obtained between October 20, 2012-July 23, 2013 were included in this analysis. Patients that received voriconazole for prophylaxis were excluded.

Results. Twenty-five adult inpatients receiving therapeutic VRC had a serum trough concentration obtained. 80% of patients were found to have a TTC with a median trough of 4.3 mcg/dL. Among patients that received a loading dose (N = 19), 89.4% of patients achieved a TTC. Of those that did not receive a loading dose (N = 6), only 50% achieved a TTC. Trough concentrations were obtained on day 5 of therapy (median).

Conclusion. Following the implementation of a VRC TDM protocol in addition to concerted efforts by ASP in ensuring safe and appropriate utilization, rate of success in achieving TTC increased by 36-45.4%. Patients receiving a loading dose were more likely to achieve TTC on day 5 of therapy.

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