These findings would allow early hospital discharge using elastomeric intravenous administration of voriconazole in patients in whom oral route of administration is not available” Harmanjeet et al (2018).

Abstract:

OBJECTIVES: Voriconazole is the drug of choice for invasive aspergillosis (IA), a leading cause of mortality and morbidity in immunocompromised patients. Prolong intravenous administration of voriconazole is often needed in such patients due to high incidence of oral mucositis and unreliable bioavailability of oral dosage form. Administration of voriconazole through elastomeric pump may facilitate early hospital discharge of clinically stable immunocompromised patients needing prolonged intravenous treatment. Therefore, we investigated the physicochemical stability of voriconazole in one of the commonly used elastomeric pumps at three different temperatures for various time points.

METHODS: A total of 18 elastomeric pumps were prepared and 6 containing 2 mg/mL of voriconazole (3 in 0.9% sodium chloride and 3 in 5% glucose) were stored at either 4°C for 96 hours, 25°C for 4 hours or at 35°C for 4 hours. An aliquot withdrawn immediately before storage (time 0) and at various time points was analysed for chemical stability using high-performance liquid chromatography and for physical stability using visual, pH and microscopic analyses.

RESULTS: Voriconazole was stable for at least 96 hours, 4 hours and 4 hours at 4°C, 25°C and 35°C, respectively, when admixed with either 0.9% sodium chloride or 5% glucose. No evidence of particle formation, colour change or pH change was observed throughout the study period.

CONCLUSIONS: These findings would allow early hospital discharge using elastomeric intravenous administration of voriconazole in patients in whom oral route of administration is not available.

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