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**USE OF POSACONAZOLE IN INFANTS AND CHILDREN FOR THE PREVENTION OF ASPERGILLUS INFECTION**

Khola Khan, Aoife Harrington, Sian Bentley, Sukeshi Makhecha. *Royal Brompton & Harefield NHS Foundation Trust*

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**Aim** Following exposure of several infants and children, with cardiac disease, to potential aspergillus infection we wished to establish whether the orally active broad spectrum triazole

antifungal Posaconazole can be used for its prevention in this age group.

**Method** Posaconazole suspension was commenced for four cardiac patients (three level 2 patients and one level 3 patient) at a dose of 4 mg/kg three times a day. This dose was based on one available study that used posaconazole in a child as young as 8.5 months.<sup>1</sup> All prescriptions were screened for any potentially interacting medications. Trough levels for posaconazole were taken on day 7 of treatment aiming for a therapeutic level of  $\geq 0.5$  mg/L and doses adjusted where necessary. Treatment was continued for 10 days after a therapeutic level was achieved. Patients were monitored for any potential infection.

**Results** The median age of the four patients treated with Posaconazole was 10 months (range 7 weeks–38 months). Three patients were received doses orally and one patient received doses via the naso-jejunal route.

Of the four patients evaluated, three achieved therapeutic levels of posaconazole (0.89, 1.53, and 0.5) at day 7. One patient required an increase in dose as levels were subtherapeutic (0.4 mg/L) on day 7; the dose was subsequently increased to 5 mg/kg three times a day and levels rechecked on day 17. The patient achieved therapeutic levels at this increased dose (0.8 mg/L).

No fungal growths were found in any of the patients at any time during the course of treatment. No adverse events were encountered and the patients tolerated the posaconazole well.

**Conclusion** All patients were successfully treated with posaconazole with three out of four achieving therapeutic levels after the first 7 days of treatment. The remaining patient (7 weeks; level 3 patient) achieved therapeutic levels after 17 days. This may have been a result of reduced absorption via the naso-jejunal route or due to the complex nature of pharmacokinetics in critically ill infants this young. No evidence of infection was found in any of the patients.

Posaconazole appears to be a safe and well tolerated oral antifungal in infants and children of this age group. Given the very small sample size, further studies would be welcomed to assess the use of this medicine in infants and children, including confirmation of the ideal dosing regimen for prophylaxis in this age group.

## REFERENCE

- 1 Döring M, Müller C, Johann PD, *et al.* Analysis of posaconazole as oral antifungal prophylaxis in pediatric patients under 12 years of age following allogeneic stem cell transplantation. *BMC Infectious Diseases* 2012;12:263–72.