

CASE NO	AGE AT DIAGNOSIS	DAY (OF TREATMENT) FUNGAL INFECTION WAS DIAGNOSED AND NEUT COUNT AT DIAGNOSIS	DIAGNOSIS AND TREATMENT REGIMEN	METHOD OF DIAGNOSIS	SPECIES ISOLATED	ANTIFUNGAL PROPHYLAXIS AND TREATMENT HISTORY	STEROID TREATMENT HISTORY
1	16	14 Neuts 0.1	B-ALL UKALL2011 Induction ¹	Positive blood culture (<i>Candida albicans</i>). Left sided retinal changes seen and vegetation on pulmonary valve seen on echocardiogram.	<i>Candida albicans</i> isolated in blood cultures on 3 occasions. Same organism grown from gastric aspirate.	Not on anti-fungal prophylaxis at time of IFI diagnosis. Fluconazole, liposomal amphotericin B, caspofungin and flucytosine were used sequentially to treat the candidaemia as the patient deteriorated clinically with persistent fevers and required admission to intensive care. Different antifungal agents were used due to persistence of symptoms; culture results demonstrated sensitivity of the candida to all of the agents used.	Prednisolone 10mg twice daily was commenced as an outpatient and then tapered over 16 weeks but stopped prematurely at 12 weeks due to patient compliance. Fevers settled 14 days after starting steroids. <u>The total duration of steroid therapy was 14 weeks.</u>
2	52	35 Neuts 0.0	MDS-EB2 (secondary MDS, previous chemotherapy for breast cancer. TET2 mutation identified) FLA-IDA ²	Lung nodules on HRCT chest, ring enhancing lesions on MRI brain (identified later).	<i>Candida spp</i> detected by PCR.	Received Itraconazole prophylaxis. Commenced voriconazole therapy. Amphotericin B added three weeks into treatment due to persistent fevers.	Dexamethasone 10mg daily was commenced with a dramatic response with resolution of fevers and improvement in inflammatory markers. On weaning/cessation of steroids, the fevers returned, and inflammatory markers rebounded. Dexamethasone was restarted at 3mg/day to good effect, but fevers recurred following conversion to prednisolone and a further reduction in dose. She proceeded with a 9/10 HLA matched unrelated donor, fludarabine/melphalan/alemtuzumab conditioned allogeneic stem cell transplant. Antifungal and steroid therapy was continued up to and throughout the peri transplant period. <u>Total duration of steroid therapy was 10 months.</u>
3	33	44 Neuts 0.0	AML (complex karyotype, monosomy 18)- underwent induction with FLAG-IDA+Gemtuzumab Receiving consolidation with CPX-351 ³ when IFI diagnosed	Pulmonary nodules on HRCT chest.	Organism was never isolated.	Received Itraconazole prophylaxis. Treated with amphotericin B as an inpatient. Switched to Posaconazole as an outpatient.	Prednisolone 30mg/day was commenced with rapid resolution of fevers and improvement in inflammatory markers – steroids were successfully weaned over a period of 4 weeks. <u>Total duration of steroid therapy was 6 weeks.</u>

Table 1: Demographics, treatment history, antifungal and corticosteroid therapy.

- 1- Short dexamethasone arm: dexamethasone 7.5mg, daunorubicin 37.5mg, vincristine 2mg, pegylated asparaginase 1500units, methotrexate 12 mg intrathecal.
- 2- FLA-IDA – fludarabine, cytarabine and idarubicin
- 3- CPX-351 – liposomal formulation of cytarabine and daunorubicin encapsulated at a synergistic 5:1 molar ratio.