

Table II: Recommended prophylaxis regimens according to patient population. See Table III for dose and monitoring recommendations. Patient subgroups shaded red are at higher risk of mould infections and orange are at higher risk of yeast infections.

Disease	Specific subgroup	Recommended prophylaxis	If recommended agent contraindicated*	Duration	
1. AML	Relapsed AML	<u>Not</u> on any tyrosine kinase inhibitor (TKI)**	<i>Able to swallow tablets AND ≥7 yrs:</i> Posaconazole tablets <i>Not able to swallow tablets OR <7 yrs:</i> <12 yrs: voriconazole ≥12 yrs: posaconazole liquid	L-amphotericin B (3x/wk)	START: at relapse diagnosis STOP: continue until HSCT then manage as per (6) Allogeneic HSCT
		On any TKI**	L-amphotericin B (3x/wk)	Echinocandin	
	Non-relapsed AML (excl. infant AML)	<u>Not</u> on any TKI**	Fluconazole***	L-amphotericin B (3x/wk)	START: following last dose of chemotherapy in cycle or ANC<1.0 STOP: when ANC expected to remain ≥1.0 for at least 7 days
		On TKI**	L-amphotericin B (3x/wk)	Echinocandin	
	Infant AML	See Very High Risk ALL below			
	Biphenotypic leukaemia	See Very High Risk ALL below			

*For RCH patients - Drug Usage Committee (DUC) approval required. For MCH patients - Department of Infection and Immunity approval required. 1

**Tyrosine Kinase Inhibitors include (but not limited to): sorafenib, imatinib, dasatinib, nilotinib, ceritinib, carfuzomib, ibrutinib, crizotinib, ruxolitinib

***Depending on individual patient factors and risk, mould active cover may need to be considered as per “relapsed AML”. Please discuss with ID team.

Disease	Specific subgroup	Recommended prophylaxis	If recommended agent contraindicated*	Duration	
2. ALL	Relapsed ALL	<u>Not</u> on weekly vincristine OR any TKI**	<i>Able to swallow tablets AND ≥7 yrs:</i> Posaconazole tablets <i>Not able to swallow tablets OR <7 yrs:</i> <12 yrs: voriconazole ≥12 yrs: posaconazole liquid	L-amphotericin B (3x/wk)	START: at relapse diagnosis STOP: <i>Remission achieved and not planned for allo-HSCT:</i> Continue as per VHR ALL <i>Remission <u>not</u> achieved or planned for allo-HSCT:</i> Continue until HSCT then manage as per (6) Allogenic HSCT (if prior IFI will need targeted 2 ^{ry} prophylaxis)
		On weekly vincristine OR any TKI**	L-amphotericin B (3x/wk)	Echinocandin	
	Very high risk (VHR) ALL, T cell ALL and Infant ALL	<u>Not</u> on weekly vincristine OR any TKI	<i>Able to swallow tablets AND ≥7 yrs:</i> Posaconazole tablets <i>Not able to swallow tablets OR <7 yrs:</i> <12 yrs: voriconazole ≥12 yrs: posaconazole liquid	L-amphotericin B (3x/wk)	START: when ANC <1.0 and during intensive phases only (i.e. <i>Induction, Consolidation and Delayed Intensification</i> phases) STOP: when ANC expected to remain ≥1.0 for at least 7 days
		On weekly vincristine OR any TKI**	L-amphotericin B (3x/wk)	Echinocandin	
	High risk (HR) ALL	<i>Induction</i> chemotherapy phase – see Very High risk ALL (ie. Mould-active azole or L-amphotericin as first line)			
		<i>Consolidation and Delayed Intensification</i> phases – see Non-relapsed AML (ie. Fluconazole as first line)			
		Standard risk (non relapsed) ALL	Routine prophylaxis not required		
3. Other leukaemia	Myelodysplastic syndrome	Consider mould active prophylaxis during induction phase chemotherapy if chronic neutropenia as per VHR ALL			
	Juvenile myelomonocytic leukemia (JMML)				
4. Lymphoma	Excluding patients undergoing any HSCT	Routine prophylaxis not required			

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***Depending on individual patient factors and risk, mould active cover may need to be considered as per “relapsed AML”. Please discuss with ID team.

Disease	Specific subgroup	Recommended prophylaxis	If recommended agent contraindicated*	Duration	
5. Aplastic anaemia	Severe aplastic anaemia	<12 yrs: voriconazole ≥12 yrs: posaconazole liquid or tablets	L-amphotericin B (3x/wk)	START: if prolonged neutropenia expected STOP: when ANC expected to remain ≥1.0 for at least 7 days	
6. Allogeneic HSCT	Pre-engraftment phase	No prior IFI	Fluconazole	Echinocandin START: during conditioning phase STOP: day +75	
		Prior IFI	Mould-active secondary prophylaxis may be required. Discuss with ID		
	Post-engraftment phase	No GvHD	Routine prophylaxis not required		
		Severe acute GvHD (steroid dependent or grade II-IV) Extensive chronic GVHD	<i>Able to swallow tablets AND ≥7 yrs</i> Posaconazole tablets <i>Not able to swallow tablets OR <7 yrs</i> <12 yrs: voriconazole ≥12 yrs: posaconazole liquid	<i>Contraindication to azoles:</i> L-amphotericin B (3x/wk)	START: at diagnosis of severe or extensive GvHD STOP: individualised (when immunosuppression sufficiently weaned). <i>Discuss ongoing need for prophylaxis when steroids are ≤0.5mg/kg/day pred equivalent.</i>
7. Autologous HSCT	When expected ANC <500 for >10 days	Fluconazole	<i>Contraindication to fluconazole:</i> Echinocandin	START: following last dose of chemotherapy in cycle STOP: when ANC expected to remain ≥1.0 for at least 7 days	
8. Solid tumours	Neuroblastoma stage IV	Fluconazole (until neutropenia recovers)	L-amphotericin B (3x/wk)	START: following last dose of chemotherapy in cycle STOP: when ANC expected to remain ≥1.0 for at least 7 days	
	All other solid tumours	Routine prophylaxis not recommended			

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