Guidelines for Prophylactic Antimicrobials in Adult Patients with Hematologic Malignancies

	ALL**	AML**	NHL	MDS	MM	Aplastic Anemia	Auto SCT	Allo SCT
Bacterial	High intensity induction/ consolidation: continue from completion of myelosuppressive chemo until ANC ≥500 x1 day[3,4,7]	High intensity induction/consolidation continue from completion of myelosuppressive chemo until ANC ≥500 x1 day[3,4,7]	Not routinely recommended	Not routinely recommended	Not routinely recommended	Not routinely recommended[9]	Start Day -1 of prep regimen. Continue until ANC ≥500 x1 day[3]	Start Day -1 of prep regimen. Continue until ANC ≥500 x1 day[3,4]
Fungal	Induction period: continue from completion of myelosuppressive chemo until ANC ≥500 x1 day[4,6] Recommended agents: fluconazole (for vincristine regimens) or posaconazole [5,6,13]	Induction period: continue from completion of myelosuppressive chemo until ANC ≥500 x1 day [4,6] Recommended agent: posaconazole[5,6,13]	Not routinely recommended	Not routinely recommended. May consider if ANC ≤500 x ≥4 weeks	Not routinely recommended	Severe and very severe: initiate at onset of treatment and continue until ANC ≥500 Recommended agent: posaconazole[10]	Start Day -1 of prep regimen. Duration dependent upon steroid use and clinical course (contact BMT attending prior to discontinuation) Recommended agent: fluconazole[5,6,12]	Start Day -1 of prep regimen. Duration dependent upon GVHD, immune-suppression regimen, and clinical course (contact BMT attending prior to discontinuation) Recommended agent: posaconazole[5,6,12,13]
VZV/HSV	HSV sero+ patients: during active therapy when ANC ≤500 [4,5]	HSV+ patients: during active therapy when ANC is less than or equal to 500[4,5]	Not routinely recommended	Not routinely recommended	Routinely required for patients receiving a proteasome inhibitor (e.g. bortezomib, carfilzomib)[5]	Severe and very severe disease on immune-suppressive agents: initiate at onset of treatment and continue until T-cell recovery[10]	Start Day -1 of prep regimen and continue until 365 days after SCT Recommended agent: acyclovir[5]	Start Day -1 of prep regimen and continue until 365 days after SCT Recommended agent: acyclovir[5]
CMV	Not indicated	Not indicated	Not indicated	Not indicated	Not indicated	Not indicated	Not indicated	Indicated for CMV-positive recipients receiving an allograft from a CMV-negative donor.
PJP	Required for ALL regimens as outlined per specific protocol; required for regimens containing fludarabine, pentostatin, clofarabine.	Not routinely recommended with exception of: - Clofarabine, penostatin, or fludarabine containing regimens	Not routinely recommended but may be considered with regimens using high-dose steroids (e.g. EPOCH)			Severe and very severe disease on immune-suppressive agents: initiate at onset of treatment and continue until T-cell recovery[9]	Not routinely recommended	To start after engraftment (around Day +30)

** *For leukemia patients with prolonged neutropenia, may consider prophylaxis*

Notes: If the patient is enrolled in a clinical trial, please defer to protocol requirement(s).
If treating per published protocol, may follow specific recommendation(s).
Dose/drug adjustments may be required for DDIs.

UC Davis Health recommended prophylactic dosing for formulary products

Antimicrobial	Dosing for non-transplant patients*	Dosing for SCT patients*
Antibacterial Coverage		
Levofloxacin (IV/PO)	500 mg IV/PO Q24h	500 mg IV/PO Q24h
Antiviral Coverage		
Acyclovir (IV/PO)	400 mg PO BID 5 mg/kg (max 250 mg) IV Q12h	800 mg PO BID 5 mg/kg (max 250 mg) IV Q12h
Letermovir (IV/PO)	Not indicated	480 mg PO/IV Q24h Concomitant cyclosporine: 240 mg PO/IV Q24h
Antifungal Coverage		
Fluconazole (IV/PO)	200 mg IV Q24h 200 mg PO Q24h	400 mg IV Q24h 400 mg PO Q24h
Isavuconazole (NPO patients only)	372 mg IV Q8h x6 doses followed by 372 mg IV Q24h	372 mg IV Q8h x6 doses followed by 372 mg IV Q24h
Posaconazole (PO only)	300 mg PO BID x2 followed by 300 mg PO QAM (tablets) 200 mg PO TID w/ meals (suspension)	300 mg PO BID x2 followed by 300 mg PO QAM (tablets) 200 mg PO TID w/ meals (suspension)
PJP Coverage		
Sulfamethoxazole/Trimethoprim	1 DS tablet PO QMWF	1 DS tablet PO QMWF
Atovaquone	1500 mg PO once daily with food	1500 mg PO once daily with food
Dapsone	100 mg PO once daily	100 mg PO once daily

*Patient-specific dose-adjustments may be required for renal dysfunction.

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