

1 Timeline of Infections After Organ Transplant

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Time post-transplant	0–1 month	1–6 months	>6 months
Type of infection	Nosocomial infections: pneumonia, catheter-related, UTI Post-surgical infections: wound, anastomotic leaks, abscesses Donor-derived infections	Opportunistic infections Reactivation of recipient or donor latent infections (prophylaxis may shift further)	Community-acquired infections In the absence of prophylaxis: reactivation of latent infections during intense immunosuppression for acute graft rejection
Bacterial	<i>C. difficile</i> colitis	<i>Listeria</i> , <i>Nocardia</i> (if no TMP/SMX)	Ongoing risk for <i>Listeria</i> , <i>Nocardia</i> , <i>M. tuberculosis</i> , <i>Legionella</i> if ongoing intense immunosuppression
	Antimicrobial resistant bacteria (MRSA, VRE, ESBL, MDR Gram-negative rods)	<i>Mycobacterium tuberculosis</i> , <i>Legionella</i>	Graft-related infections (cholangitis in liver, pneumonia in lung, UTI in kidney)
	Post-surgical infections (infected biliomas in liver transplant, pneumonia in lung transplant, UTI in renal transplant)		Community-acquired pneumonia pathogens
Viral	In the absence of anti-herpesvirus prophylaxis: HSV	BK nephropathy (kidney), HCV reactivation (liver), adenovirus, respiratory viruses	Late onset CMV (post-prophylaxis), EBV-related PTLD, recurrent HSV, VZV, HCV progression, JC polyomavirus (PML)
	Donor-derived: LCMV, rhabdovirus, West Nile virus, HIV	CMV, EBV, HSV, VZV (after discontinuation of prophylaxis)	Respiratory viruses, enteric viruses, West Nile virus
Fungal	<i>Candida</i> spp.	<i>Cryptococcus</i> , <i>Aspergillus</i> , atypical molds, <i>Zygomycetes</i> sp.	During intense immunosuppression in the absence of antifungal prophylaxis: <i>Aspergillus</i> , atypical molds, <i>Zygomycetes</i> species
	Early <i>Aspergillus</i> only in some settings	<i>Pneumocystis</i> only if no prophylaxis	Geographically restricted endemic fungi
Parasitic	Uncommon	<i>Toxoplasma</i> , <i>Strongyloides</i> , <i>Trypanosoma</i> , <i>Leishmania</i>	Ongoing risk if intense immunosuppression

CMV, cytomegalovirus; EBV, Epstein—Barr virus; ESBL, extended spectrum beta-lactamase; HCV, hepatitis C virus; HIV, human immunodeficiency virus; HSV, herpes simplex virus; LCMV, lymphocytic choriomeningitis virus; MDR, multi-drug-resistant; MRSA, methicillin-resistant *Staphylococcus aureus*; PML, progressive multifocal leukoencephalopathy; PTLD, post-transplant lymphoproliferative disorder; SMX, sulfamethoxazole; TMP, trimethoprim; UTI, urinary tract infection; VRE, vancomycin-resistant enterococci; VZV, varicella zoster virus.