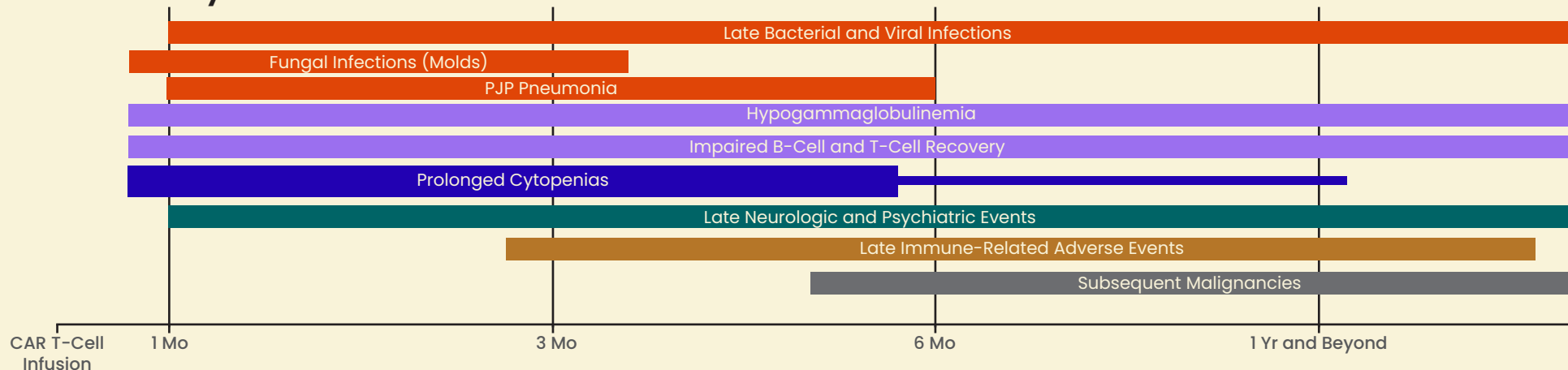


Recognize, Monitor, Escalate:

A Nursing Pocket Guide for Post-CAR T Care

Timeline for Delayed Toxicities With CAR T-Cells



CAR T-Cell Therapies and Current Indications (September 2026)

CAR T-Cell Therapy		Indications		CAR T-Cell Therapy		Indications	
B-Cell Acute Lymphoblastic Leukemia (B-ALL)				Non-Hodgkin Lymphoma (NHL)			
Brexucabtagene autoleucel	Adults with R/R B-cell precursor ALL			Brexucabtagene autoleucel	Adults with R/R mantle cell lymphoma (MCL) and R/R B-ALL		
Obecabtagene autoleucel	Adults with R/R B-cell precursor ALL			Lisocabtagene maraleucel	- Adults with LBCL, including DLBCL NOS (including DLBCL arising from indolent lymphoma), HGBCL, primary mediastinal LBCL, and FL grade 3B, who have: - Refractory disease to first-line chemoimmunotherapy or relapse within 12 mo of first-line chemoimmunotherapy; or - Refractory disease to first-line chemoimmunotherapy for whom autologous hematopoietic stem cell transplant is not an option; or - R/R disease after ≥2 lines of systemic therapy - Adults with R/R chronic lymphocytic leukemia (CLL) or small lymphocytic lymphoma (SLL) after ≥2 lines of therapy, including both a BTK inhibitor and a BCL-2 inhibitor - Adults with R/R FL after ≥2 lines of systemic therapy - Adults with R/R MCL after ≥2 lines of systemic therapy, including a BTK inhibitor - Adults with R/R MZL who have received ≥2 prior lines of systemic treatment		
Tisagenlecleucel	Patients up to 25 yr of age with B-cell precursor ALL that is refractory or in second or later relapse						
Multiple Myeloma (MM)							
Idecabtagene vicleucel	Adults with R/R MM after ≥2 prior lines of therapy including an immunomodulatory agent (IMiD), a proteasome inhibitor (PI), and an anti-CD38 monoclonal antibody						
Ciltacabtagene autoleucel	Adults with R/R MM who have received at least 1 prior line of therapy including a PI and an IMiD and are refractory to lenalidomide						
Non-Hodgkin Lymphoma (NHL)							
Axicabtagene ciloleucel	- Adults with R/R LBCL after ≥2 lines of systemic tx, including DLBCL NOS, DLBCL arising from FL, primary mediastinal LBCL, HGBCL - Adults with LBCL that is refractory to first-line chemoimmunotherapy or that relapses within 12 mo of first-line chemoimmunotherapy - Adults with R/R FL after ≥2 lines of systemic therapy			Tisagenlecleucel	- Adults with R/R LBCL after ≥2 lines of systemic treatment, including DLBCL NOS, DLBCL arising from FL, HGBCL - R/R FL after ≥2 lines of treatment		

CAR T-Cell Therapy: Toxicities

Acute Toxicities

- Cytokine release syndrome
- Immune effector cell-associated neurotoxicity syndrome
- Cytopenias
- Immune effector cell-associated HLH-like syndrome
- Infections

Delayed Toxicities

- B-cell aplasia/hypogammaglobulinemia
- Prolonged cytopenias
- Late infections
- Long-term neurologic events/movement and neurocognitive treatment-emergent AEs
- Transient cardiac toxicities
- Secondary malignancies

Patient Monitoring and Communicating With CAR T-Cell Treatment Centers



Patients should be monitored for the following toxicities for at least 4 weeks and up to 3-6 months post infusion depending on the product:

- ✓ Prolonged cytopenias (transfusions as indicated, G-CSF as needed)
- ✓ B-cell aplasia/hypogammaglobulinemia (monitor IgG levels; consider IVIG for persistent hypogammaglobulinemia [eg, IgG ≤ 400 $\mu\text{g/dL}$], particularly with recurrent or severe infections)
- ✓ Infection
- ✓ Late neurotoxicity
- ✓ Relapse
- ✓ Secondary malignancies: lifelong monitoring recommended



Important to build relationships between **cellular therapy centers** and **community programs** to ensure rapid and productive collaboration



- ▲ Patients remain within proximity of a healthcare facility for ≥ 2 weeks after infusion
- ▲ Patients should be hospitalized at the first sign of neurotoxicity, including any change in mental status, specifically within the first 30-60 days
- ▲ Moderate to severe diarrhea can be a sign of IEC colitis and should be addressed promptly
- ▲ Any fever $>100.4^\circ\text{F}$ should be taken seriously

Managing Common CAR-T Cell Toxicities



Consult institutional guidelines for management of the following toxicities and contact: **CAR T-cell treatment center for special management questions**



B-cell aplasia/hypogammaglobulinemia

- Occurred in up to **~30%** of adults with R/R large B-cell lymphoma or MCL treated with approved agents, in **43%** of pediatric/young adult R/R B-cell ALL treated with tisagenlecleucel, and in **21%** of patients treated with idecabtagene vicleucel in pivotal trials; immunoglobulin levels should be monitored following therapy
- For levels <400 $\mu\text{g/L}$ replete with IVIG



Cytopenias

- Grade ≥ 3 cytopenias unresolved by Day 30 post treatment occur in a significant proportion of patients; blood counts should be monitored following therapy



Infections

- Occurred in **38% to 70%** of patients treated with approved agents in pivotal trials
- Manage infections in accordance with institutional policies and in consultation with infectious disease specialist



Antimicrobial prophylaxis (herpes and PJP)

- Duration varies by institutional practice and immune recovery
- Consider CD4 recovery (eg, >200 cells/ μL) when determining discontinuation of PJP prophylaxis
- IVIG should be administered monthly for 6-12 months for hypogammaglobulinemia regardless of IgG levels



Vaccination

- Influenza (yearly)
- Resume inactivated vaccines according to institutional post-CAR T vaccination guidance and immune recovery (commonly beginning ~3-6 mo after therapy, depending on vaccine and immune status)
- COVID-19 vaccination (generally beginning ~3 months after CAR T-cell therapy)

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