Guideline Resource Unit
guru@ahs.ca

Transfer of Care Letter

Hematology Tumour Team /

Alberta Blood and Marrow Transplant Program

Physician

[DATE]

Re: Transfer of Care

Dear Dr. [Insert Physician Name],

Your patient [Insert Patient Name] has received chimeric antigen receptor (CAR) T-cell therapy and is now being **transitioned** back to you for ongoing surveillance.

The evidence-based recommendations below outline the standard approach to long-term follow-up and supportive care after CAR T-cell therapy. These are intended to assist you in providing optimal care for your patient but are not meant to be a substitute for clinical judgment.

Surveillance and Monitoring Recommendations

The following tests should be performed as part of the minimum recommended follow-up:

- CBC, creatinine, liver enzymes, LDH, quantitative immunoglobulins should be measured every 1-3 months for the first 1-2 years after CAR T-cell therapy
- CD4 count should be measured at a minimum of 1 year after CAR T-cell therapy
- Peripheral blood flow cytometry immunodeficiency panel should be done at least every 3 months for patients with B-ALL to monitor for loss of B-cell aplasia
- Long-term survivors should have CBC measured every 6-12 months and age-appropriate cancer screening performed

Complications and Late Effects of CAR T-cell Therapy

Complication	Actions
Neurotoxicity	• Rare cases of late onset immune effector cell-associated neurotoxicity syndrome (ICANS) have been reported months after CAR T-cell therapy. Consider neuroimaging and lumbar puncture to exclude other causes. • Atypical cases of neurotoxicity such as parkinsonism, cranial nerve palsies, and neuropathy have been observed after BCMA-directed CAR T-cell therapy. • Treatment of neurotoxicity should be done in conjunction with the CAR T-cell physician. • Deconditioning and steroid-induced myopathy may also occur after cytokine release syndrome (CRS) and ICANS and affected patients may benefit from rehabilitation.
Infections	• Late infections are the leading cause of non-relapse mortality after CAR T-cell therapy, often due to effects of prior treatment, prolonged B-cell aplasia, and delayed T-cell reconstitution. • PJP prophylaxis with sulfamethoxazole/trimethoprim (or dapsone + penicillin if intolerant) should be continued for at least 1 year after CAR T-cell therapy and until CD4 count >200. • HSZ/VZV prophylaxis with valacyclovir should be continued for 2 years after CAR T-cell therapy but stopped the day before the live VZV immunization is administered, with the exception of

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	previous autotransplant recipients for whom valacyclovir may be stopped 1 month after the second non-live Shingrix immunization • HBV prophylaxis for eligible patients should be continued for >1-2 years after CAR T-cell therapy. • Antimould prophylaxis should be considered for patients with prolonged neutropenia. • Influenza vaccine and a complete COVID-19 revaccination series are recommended as soon as 3 months after CAR T-cell therapy. • Other non-live immunizations are recommended starting 6 months post CAR T-cell therapy and live immunizations starting at 2 years, as per the ABMTP Standard Practice Manual recommendations for autotransplant recipients (if prior autotransplant before CAR-T) or allotransplant recipients (if no prior autotransplant): Alberta Bone Marrow and Blood Cell Transplant Program: Standard Practice Manual (albertahealthservices.ca) • IVIg replacement is recommended for patients with recurrent and/or severe infections in the setting of hypogammaglobulinemia.
Cytopenias	• Prolonged cytopenias are relatively common after CAR T-cell therapy and may take months to resolve in some cases. • Bone marrow aspirate and biopsy should be performed for severe and/or prolonged cytopenias lasting >1-3 months to rule out disease recurrence, HLH, or MDS/AML. • Immune effector cell-associated hematotoxicity can usually be managed with supportive care including transfusions, growth factors (EPO, G-CSF, TPO), and prophylactic antimicrobials. • Autologous stem cell boost can be considered if available, while allogeneic stem cell transplantation is considered a treatment of last resort.
New malignancies	• CAR T-cell therapy recipients should have regular CBC and age-appropriate cancer screening performed to monitor for MDS/AML and other malignancies relating to the cumulative effects of prior cancer treatment. • Monitoring is also required for the small potential risk of secondary malignancies arising from insertional oncogenesis. • New malignancies after CAR T-cell therapy should be reported to the cell therapy centre.
Psychological distress	• CAR T-cell therapy recipients may experience psychosocial distress related to their disease and treatment journey and should receive appropriate mental health screening and support.
Infertility	• The impact of CAR T-cell therapy on fertility and the developing fetus are not yet well understood. • Effective contraception is recommended for >6-12 months after lymphodepleting chemotherapy and CAR T-cell therapy.
Organ dysfunction	• CAR T-cell therapy recipients may be at increased risk of organ dysfunction due to the effects of prior chemotherapy, radiation, or transplantation, and monitoring and supportive care should follow relevant treatment guidelines.
Autoimmunity	• Rare cases of autoimmune complications have been reported after CAR T-cell therapy, including graft-versus-host disease among prior allotransplant recipients, and should be managed in accordance with standard treatment guidelines.

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Patient Support and General Recommendations

Your patient has received an After Treatment book and the Newly Diagnosed book with resources to help.

Counselling and Support: If you feel your patient would benefit from social, psychological or spiritual counselling, resources are available from the following sources (Community Cancer Centre patients should call the nearest Associate or Tertiary site):

Calgary: 587-231-3570	Lethbridge: 403-388-6814	Other Communities visit www.ahs.ca/cpn and click: Provincial Cancer Patient Navigation
Edmonton: 780-643-4303	Medicine Hat: 403-529-8817	
Grande Prairie: 825-412-4200	Red Deer: 403-343-4485	

Physician Support

The following resources provide support and information for physicians:

- Primary Health Care Resource Centre: https://www.albertahealthservices.ca/info/page11929.aspx
- Specialist Link (Calgary/Southern Alberta): https://www.specialistlink.ca/
- ConnectMD (Edmonton/Northern Alberta): https://www.pcnconnectmd.com/
- Treatment and follow up guidelines: https://www.albertahealthservices.ca/info/cancerguidelines.aspx

At any time if you have any concerns or are in need of more information please call the **referring oncologist at [Insert Contact Number]**.

We appreciate your partnership in caring for this patient.

Sincerely,

The Alberta Blood and Marrow Transplant Program

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