

Understanding access to high-cost novel cancer therapies across Canada: a survey of pediatric oncology providers

Kriti Kumar MD, Avram Denburg MD PhD, Celine Cressman PhD, Derek Tsang MD MSc, Marcel Romanick BSc, Myanca Rodrigues MSc, Paul Gibson MD

Goal and Objectives

- Targeted therapies, proton beam therapy, cellular therapy are high-cost therapies in Canada and not always publicly funded
- Provinces and territories differ in their funding review processes, leading to differing degrees of reimbursement for novel therapies
- Objective was to explore disparities in access to four select high-cost novel therapies: blinatumomab, larotrectinib, proton beam therapy (PBT), and cellular therapy (CT)

Methods

- Online cross-sectional survey of Canadian pediatric medical oncologists, radiation oncologists, pharmacists, hematopoietic stem cell transplant/cellular therapy physicians, nurse practitioners across 17 pediatric centres
- Four vignettes developed by consensus amongst investigators and piloted with 2 experts in the field
- Selection of these therapies was based on relevance for treatment of children and youth with cancer, available evidence supporting the novel therapy, current Health Canada approved indications, and corollary potential for impact on pediatric patients in Canada
- Distributed from June – September 2024 via REDCap directly by email and/or through email distribution lists of: the ACCESS (Advancing Childhood Cancer Experience, Science & Survivorship) network, C17 Council, and the Canadian Association of Radiation Oncologists (CARO)

Blinatumomab for low-risk relapse of acute lymphoblastic leukemia (ALL)

Larotrectinib for a TRK-fused soft tissue sarcoma

Proton beam therapy for an unresectable head and neck sarcoma

Cellular therapy for first relapse of ALL in a patient with Down Syndrome

Figure 1: Vignettes selected for survey to explore disparities in access to high-cost cancer therapies

Results

- Seventy participants were enrolled from 16 centres, with 68 (response rate = 97%) completing at least one survey question
- Most respondents were pediatric medical oncologists (31/68, 45.6%)

Table 1: Provider-reported access to each therapy in vignette-based survey

Novel Therapy	% of Time Therapy is Accessible (mean, SD)
Blinatumomab	89.0 (22.9)
Larotrectinib	79 (28.6)
Proton Beam Therapy	59.2 (29.3)
Cellular Therapy	94 (11.5)

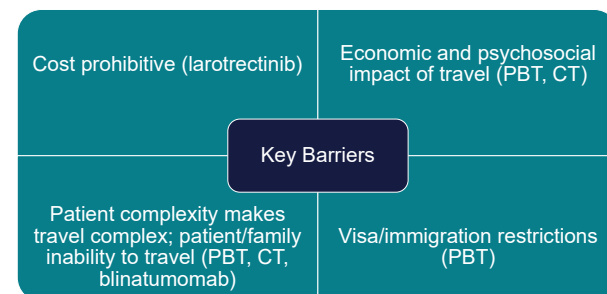


Figure 4: Key barriers identified by providers in accessing the selected therapies in the survey

Impact and Outcomes

- Highly variable access to selected evidence-informed therapies in Canada, with PBT being least accessible
- Financial constraints and psychosocial impacts of traveling for therapy continue to impede equitable access
- Easier access to photon therapy within Canada may result in the rejection of PBT as the best therapeutic option for patients who would clearly benefit from the decreased long-term toxicity offered by PBT
- Findings highlight the need for sustainable sources of government funding for these therapies as well as significant psychosocial support for families as travel for these therapies is common within Canada
- Development of a Canadian PBT centre will not on its own alleviate the significant financial and emotional toxicity that patients and families experience when traveling for therapy; targeted policy changes to address sustainable financial and psychosocial supports are necessary

Project Timeline

- Project complete, abstract published for ASCO Annual Meeting in June 2025 and manuscript submitted for publication
- Questions: kriti.kumar@sickkids.ca