ANNUAL REPORT 2021

Transplantation & Cellular Therapy Program

Email: tctoffice@toh.ca

TCT Program Website

501 Smyth Rd., Box 704
Ottawa, ON, K1H 8L6
Tel: 613-737-8227
Fax: 613-739-6816

The Ottawa Hospital | L'Hôpital d'Ottawa

Our Mission

To provide each transplantation and cellular therapy patient with the world-class care, exceptional service and compassion we would want for our loved ones.

Our Vision

- The Ottawa Hospital Transplantation & Cellular Therapy (TCT) Program strives to continuously provide the best care possible to patients with hematologic malignancies and blood or immune disorders who would benefit from stem cell transplantation or CAR T-cell therapy.
- We develop, share, and apply new knowledge and technology in the delivery of TCT patient care through world-leading research programs in partnership with the Ottawa Hospital Research Institute (OHRI).

Our Footprint

TCT Coordination Unit Office
Centre for Practice Changing Research, 2nd Floor
501 Smyth Rd, Ottawa, ON, K1H 8L6

Inpatient Unit / Day Hospital
TOH General Campus, Main Building, 5th Floor
501 Smyth Rd, Ottawa, ON, K1H 8L6

Outpatient Clinic
Module L, TOH General Campus, 2nd Floor
501 Smyth Rd, Ottawa, ON, K1H 8L6

Cell Collection Facility
Cancer Centre, 2nd Floor, C2148 North Tower
501 Smyth Rd, Ottawa, ON, K1H 8L6

TABLE OF CONTENTS

LETTER FROM THE PROGRAM MEDICAL DIRECTOR

Highlights

It has been over two years since the start of the COVID-19 pandemic, and I don't think it is done with us yet. What I have been reminded is how truly amazing the people are with whom I interact every day. We were worried and even scared when COVID-19 arrived, but together we have been able to continue providing care to an ever-growing population. I include in that "together" the patients and their loved ones who trusted we would do the best we could to protect them. They put their faith in the science and experts and made incredible sacrifices of prolonged isolation and separation from their families to minimize the risk. We are saddened by the lives lost to COVID-19 and the scars it will leave on loved ones and the team.

I was also reminded that the world waits for no one. We did not have the option to shut down our program and wait for this pandemic to pass. To have done so would have been a great folly that would have led to even more loss. The structures and processes we established as a FACT and Health Canada accredited cellular therapy program served us well.

Despite the challenges of the last year, the program has thrived. We are "working around" construction, have added faculty and staff, developed new alliances to provide cellular therapy for patients from Newfoundland & Labrador and other points east, introduced a new cellular therapy offering (CAR T cells), and continued to provide innovative treatments. One behind-the-curtain improvement that must be acknowledged is the incredible efforts of Carey Landry to build our data team. With their efforts and expertise, we are now much better positioned to take deep dives into our practices and outcomes.

As always, I want to acknowledge the incredibly supportive and collaborative relationship we have with TOH hospital administration. They help us turn our ideas into deliverable solutions. Similarly, we appreciate our colleagues at Ontario Health-Cancer Care Ontario as unsung heroes enabling progress in transplantation and cellular therapy across the province.

"What I have been reminded is how truly amazing the people are with whom I interact every day"

Looking Ahead

Enough looking back, what is next? The upcoming few years will bring program stabilization, increased research activities, and preparation for increased volumes and clinical advancements on the horizon. In terms of succession planning, Dr. Michael Kennah will take on increasing responsibility in program clinical operations oversight and Dr. Ash Masurekar will be joining our team in 2022 as a new hematology faculty member specializing in stem cell transplantation.

Ask anyone in our program and I think they will agree, we are ready for whatever comes next. I think they will also say how fortunate they are to work with the people they do, providing such important service to our patients. Ask them.

Enjoy the report!

Dr. Christopher Bredeson, MD, MSc, FRCPC
TCT Program Medical Director
Head, Malignant Hematology
Associate Professor, University of Ottawa Dept. of Medicine

LETTER FROM THE COLLECTION FACILITY DIRECTOR

Dear colleagues,

Despite the pandemic challenges of 2021 there has been a significant growth in the field of transplantation and cellular therapy at TOH.

Apheresis, the collection of cellular therapy products is the first step in the process. The cell collection facility at TOH provides a variety of cellular components that are used for autologous and allogeneic transplantation, research and most recently for the manufacturing of genetically engineered CAR T cells.

The highly specialized cellular therapy program provides cell collection services to other transplant centres in Ontario as well as serving as a hub for unrelated collections. In 2021 the clinical and collection teams were instrumental in providing 27 cellular therapy products to patients around the world.

"Our goal is to provide a high quality, reliable apheresis service"

Our goal is to provide a high quality, reliable apheresis service. In 2021, we again successfully collected products for all patients referred to our program enabling patients to proceed to the critical next phase of therapy.

Sheryl McDiarmid, RN, BScN, MEd, MBA, CVAA©, CRNI®
Collection Facility Director
Advanced Practice Nurse, TCT Program
Clinical Manager, Apheresis & Vascular Access

CLINICAL ACTIVITY

453
CONSULTS

3550
IN-PERSON FOLLOW-UPS

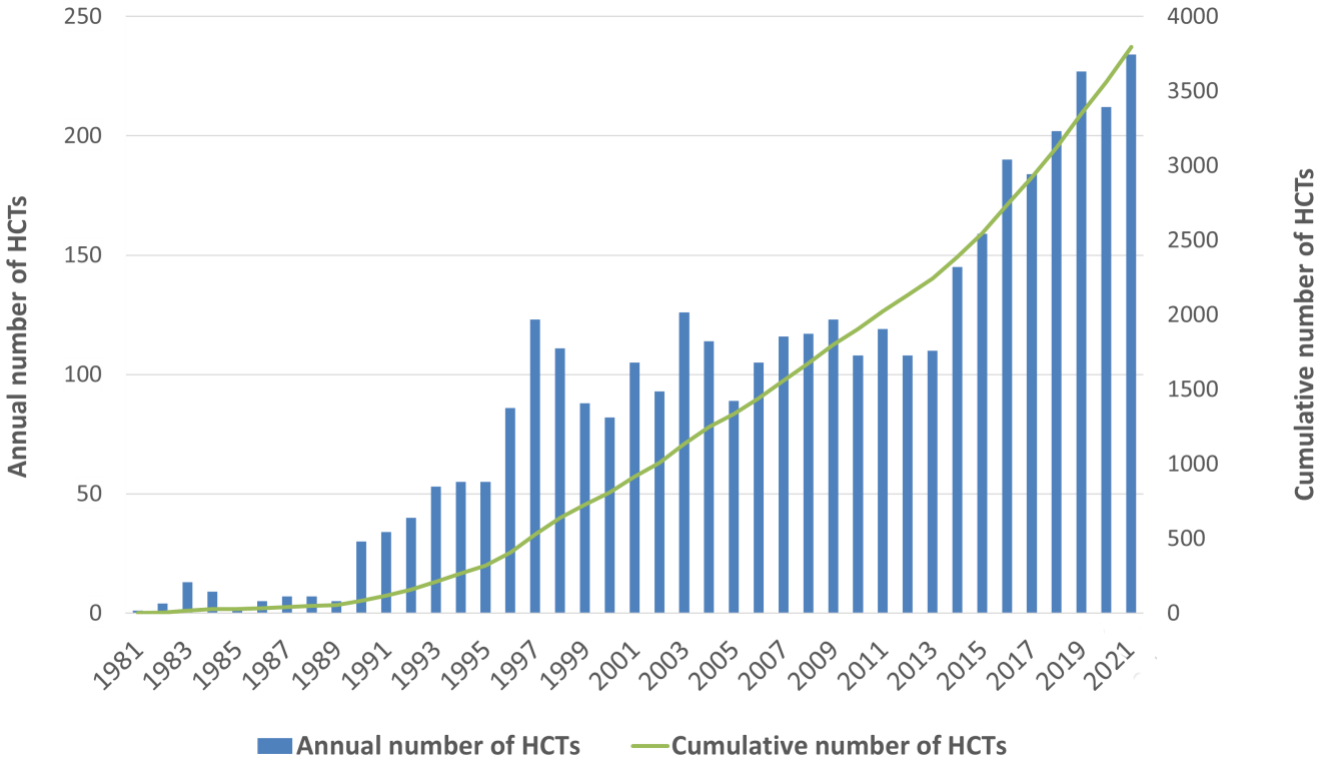
103
ALLOGENEIC (DONOR) STEM CELL TRANSPLANTS

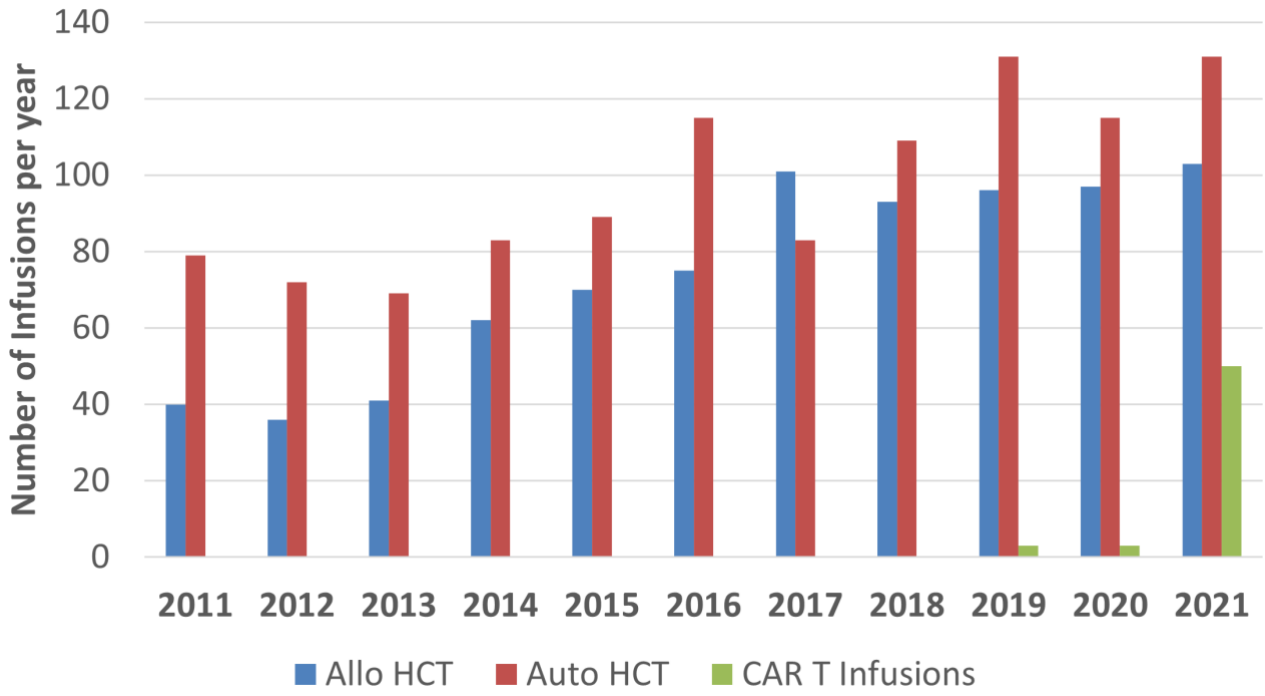
50
CAR T-CELL INFUSIONS

131
AUTOLOGOUS STEM CELL TRANSPLANTS

<6
DONOR LYMPHOCYTE INFUSIONS

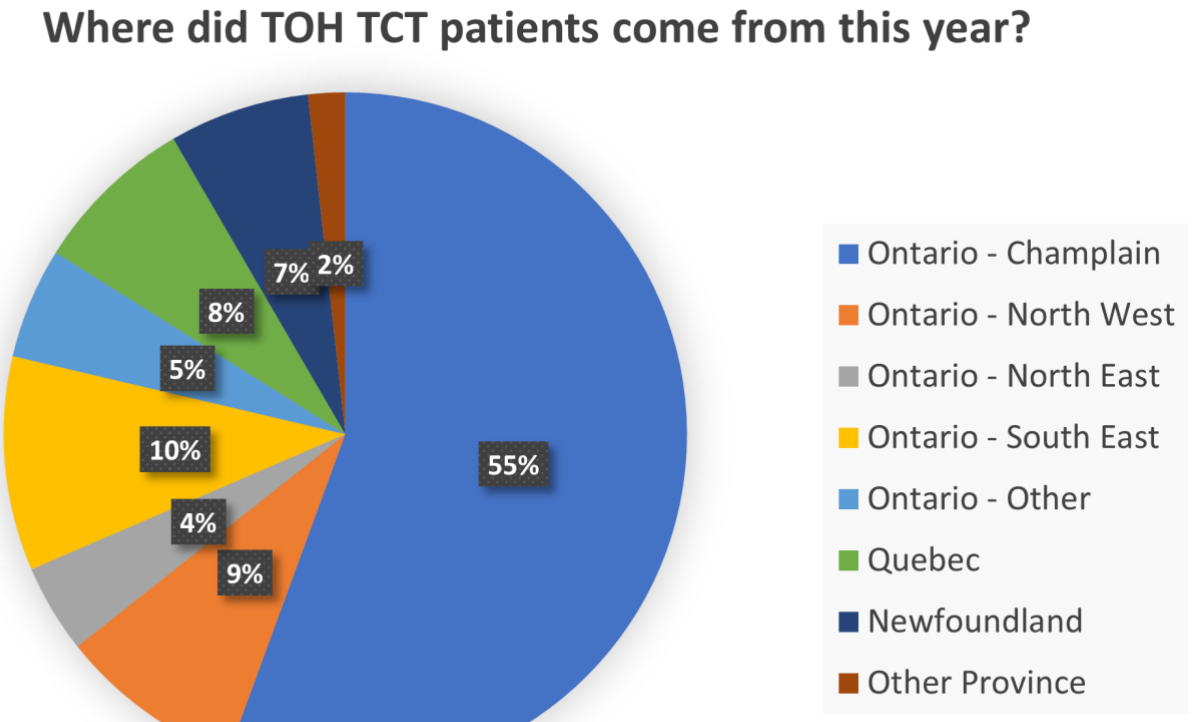
Activity by Year

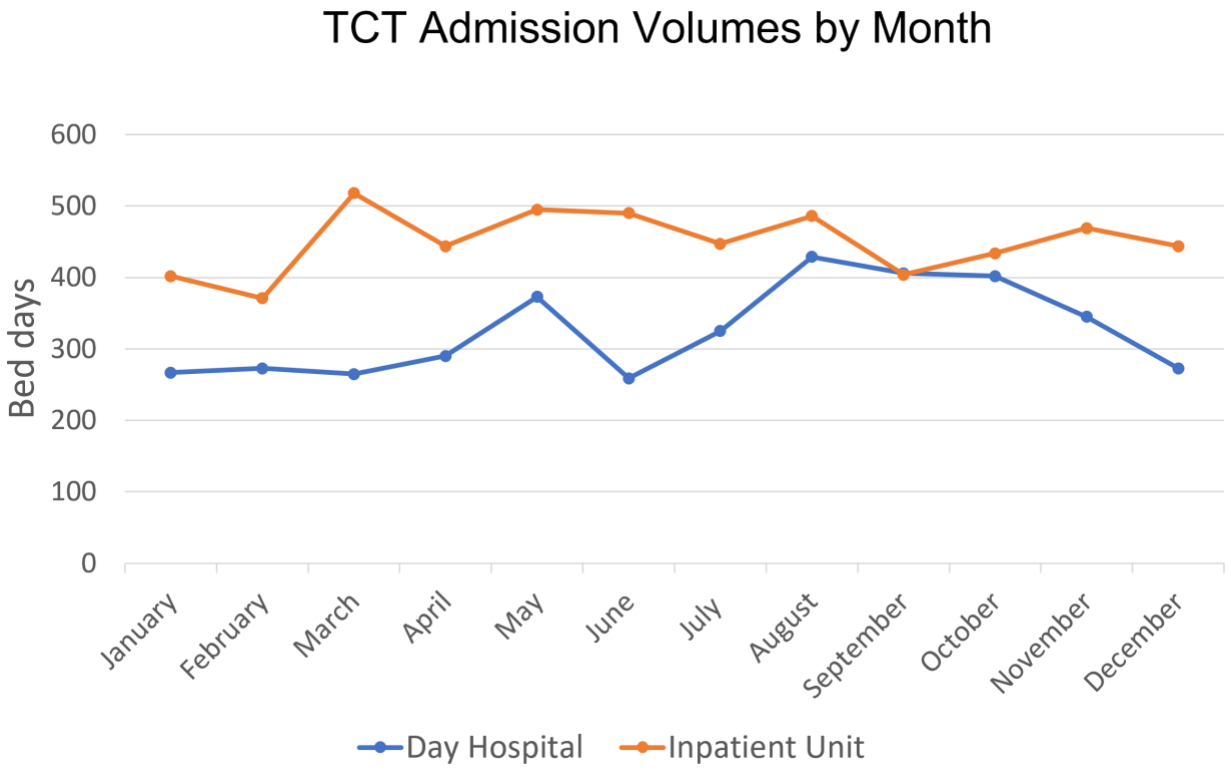




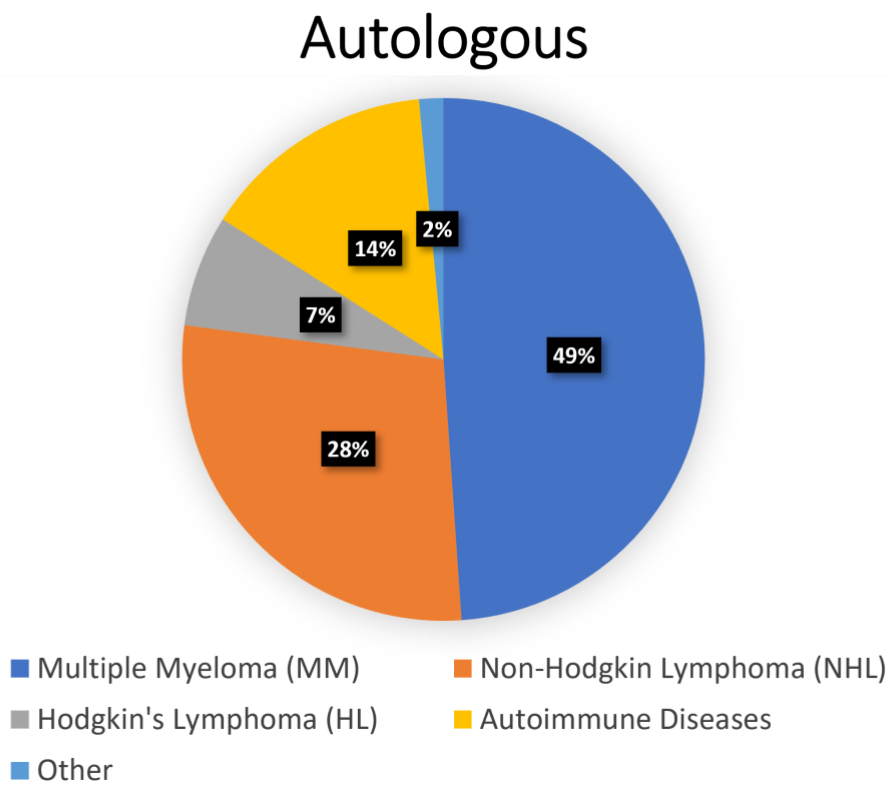
HCT = Hematopoietic (stem cell) transplant, where “Allo” is allogenic (donor) and “Auto” is autologous (self)

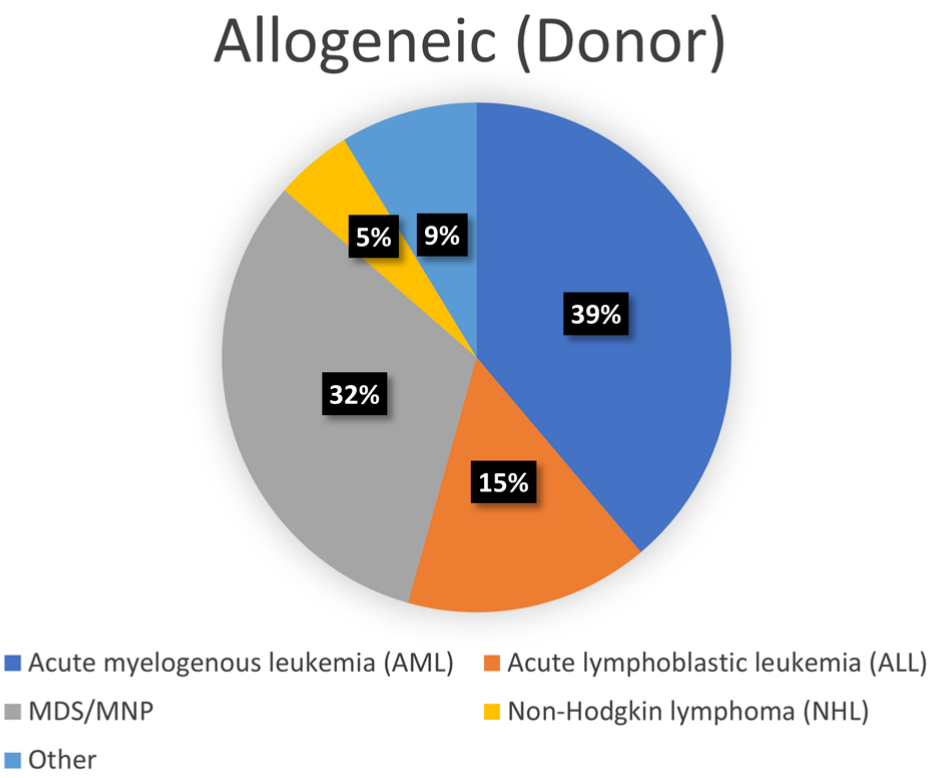
Patient Distribution



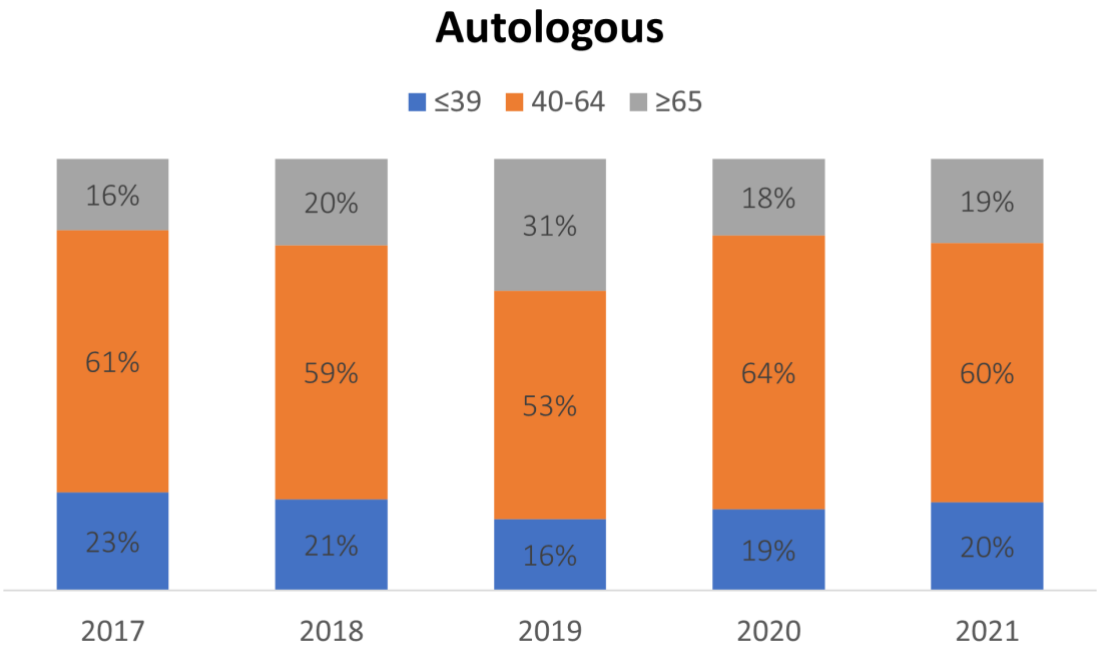


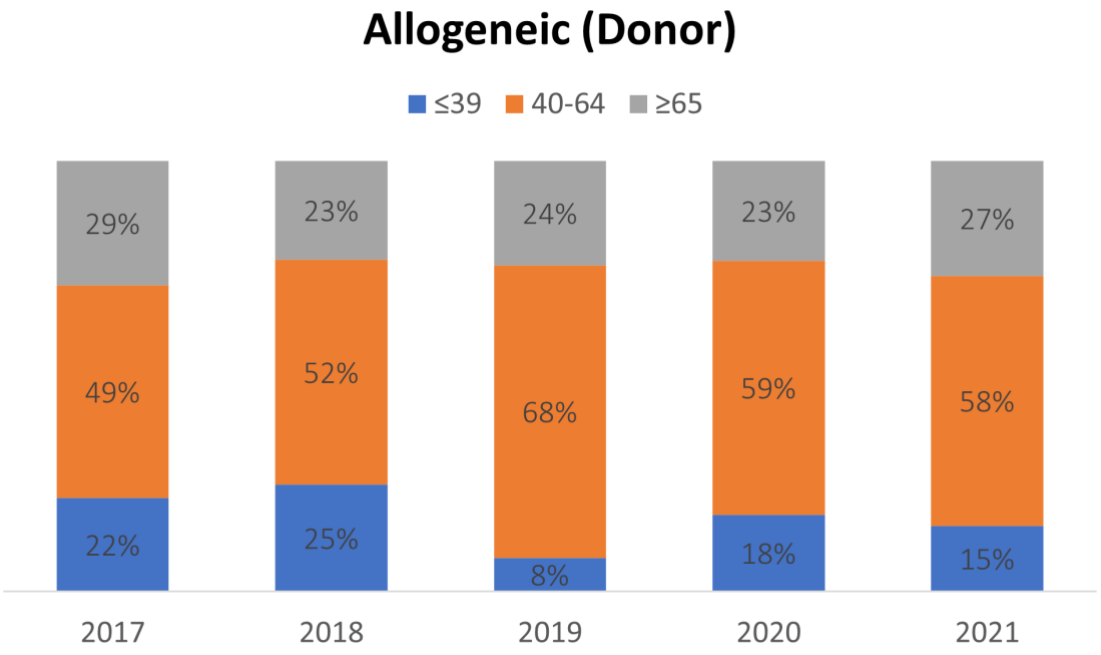
Transplant by Disease Type





Transplant by Age

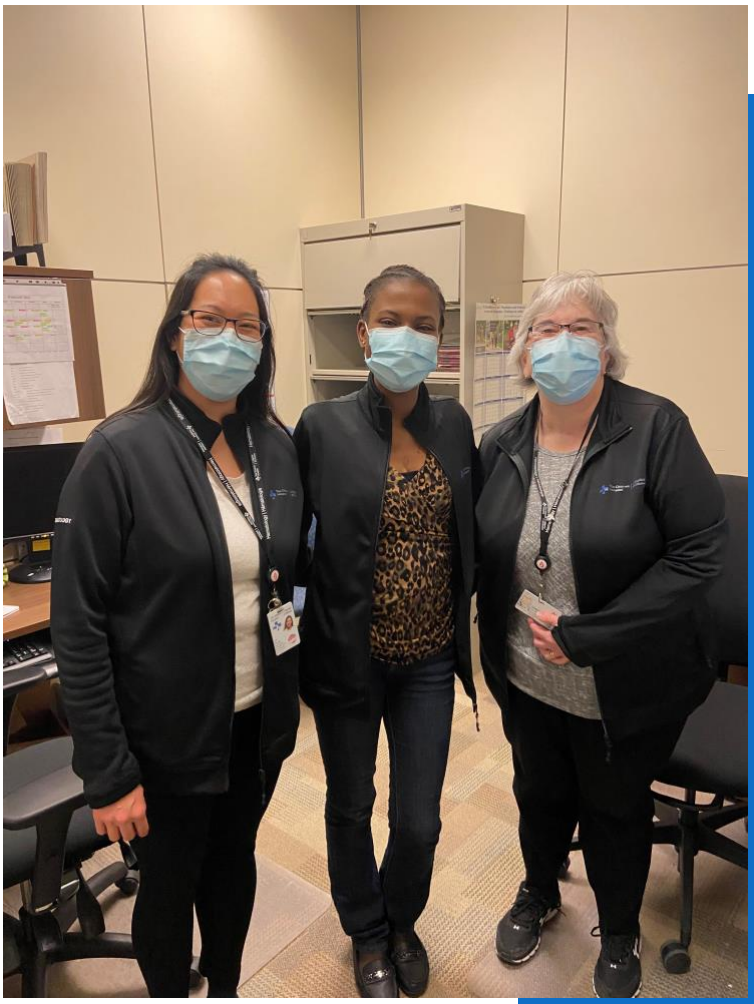




MEET THE TEAM

Office Support

The TCT clerical staff provide an essential liaison service, triaging calls of a medical nature to the most appropriate clinician for immediate follow-up care and connecting patients to other departments and services at TOH or in the community. Patients may be exploring the option of stem cell transplant or CAR T-cell therapy for the first time, entering the treatment planning stage of their journey, or maybe they are followed in the outpatient clinic after hospital discharge. Whatever the case may be, the office team is here to help schedule appointments, answer questions, and provide kind and friendly service.



"The service from the TCT outpatient department has been excellent over the years. Gisèle always has a pleasant demeanor and is able to answer my questions in a timely fashion."

- John L., transplant recipient & leukemia survivor

L-R: Jill P., Shangladia J., and Gisèle V.

Getting to Know…

Pam Guram, *TCT RN, CON(C)*

Q: When did you first join the Ottawa Hospital?

A: I grew up in Derby, England and moved to Burlington, Ontario with my parents when I was 15 years old. After high school, I moved to eastern Ontario where I worked as a lab technician for 12 years before pursuing my dream of becoming a nurse. In 2001 I received my nursing diploma from St. Lawrence College.

Q: What motivated you to pursue a career in oncology and hematology nursing?

A: Initially, I was intrigued by a nursing career in the Emergency Department. However, after completing my consolidation placement on 5 West, I developed a true passion for oncology. I was very fortunate to have been mentored by some of the best Registered Nurses at the Ottawa Hospital, and quickly realized that this was the place for me! I have since been working in the TCT outpatient day hospital, which is affiliated with the inpatient unit. During this time, I have developed relationships with my patients and their primary caregivers as they go through chemotherapy and transplant. As a team, we are also now involved in CAR-T cell therapy - a new treatment modality for patients with a certain type of relapsed/refractory acute leukemia and lymphoma. It is exciting to work with a team of brilliant minds that do so much for our patients!

Q: How would you describe the nursing team on 5 West inpatient unit and TCT Day Hospital?

A: The nurses on 5 West have always been the most dedicated, caring and compassionate individuals, and they have always demonstrated exemplary team work. I have never felt alone and know that no matter how difficult the job might be on a particular day, I always have a colleague to count on. The interdisciplinary team's unanimous commitment to quality patient care makes 5 West a wonderful place to work.

Q: What part of your job do you find most rewarding?

A: The most rewarding aspect of my job: the patients! I genuinely believe that our hematology patients are truly special. They have taught me so much through their courage and resilience. It is a privilege to have a job where I can help people through such a difficult time in their lives. Being a part of our patients' journeys has been a very humbling experience.

Getting to Know…

Dr. Michael Kennah, *hematologist*

Q: What drew you to the field of hematology and stem cell transplantation?
A: I had an interest in blood cancers developing from research exposures prior to medical training so it was always my aim. My interest specifically in transplantation came much later through the clinical exposures I had in postgraduate hematology training. Even now I continue to find it a fascinating intersection of hematology with other complex areas of immunology and medicine.

Q: What attracted you to The Ottawa Hospital?
A: I had the opportunity to work with the team here during my hematology training and enjoyed the people, patient population and city. It led me to pursue a fellowship program here and later to join the faculty.

Q: This program is known for producing superior outcomes and world-class research. Where in the future do you see opportunities for improvement?
A: Cellular therapies for blood cancers and other disorders are rapidly evolving and the landscape is going to look drastically different throughout my career. We have an excellent translational program here at TOH that is a leading innovator in the field and will continue to provide great opportunities for academic and clinical advancement.

Q: Do you have a mentor at TOH who has made a difference to you and your approach to patient care?
A: My approach has been shaped by everyone I've trained with, but my entire group of colleagues in the program have been instrumental in building my compassion and resilience in this field. I owe them all recognition.

Collecting and Caring

In April 2016, TOH launched an independent collection facility, which became FACT-accredited in March 2017. Today, this 14-person strong team provides critical collection services for the TCT program's autologous and allogeneic stem cell transplant patients, leukapheresis for donor lymphocyte infusions and CAR T-cell manufacturing. They also provide the therapeutic offering of extracorporeal photopheresis (ECP) for the treatment of chronic graft versus host disease, a common long-term donor transplant complication.

In 2021...

267
products collected

609
ECP procedures performed

100%
of leukapheresis cell count targets met

L-R: Marco G., Debbie B., Martha M., Loretta S., Josée G., Anette P., Kelly H.

"The TOH apheresis team is a highly skilled group of nurses who embody teamwork and excellent patient care. Every day we meet patients living with diseases and know that apheresis is improving their quality of life. It is truly inspiring to be part of a team that, through complex technology and training, make an impact in the world of hematology."

- Debbie B., *Apheresis/TCT Coordination Nurse*

CELL THERAPY DURING THE COVID-19 PANDEMIC – A PATIENT'S STORY

By Carey Landry

It was 2016, and Todd Carley wasn't feeling great. The normally active high school teacher lacked energy and knew something was wrong. After multiple doctor's appointments, x-rays, and an abdominal biopsy, Todd and his wife Nicole got the news. He had non-Hodgkin lymphoma. The diagnosis came as a shock. Still, the doctors were optimistic and recommended a 'watch-and-wait' approach. "We didn't tell anyone. Even our boys didn't know", said Todd, referring to his teenage sons, Gavin and Garret. Then, in Fall 2020, his symptoms returned, and they shared the diagnosis. After a few rounds of chemotherapy, the Carley family thought the worst was behind them. But new scans showed his cancer wasn't going away. "At that point, I was given the option of a stem cell transplant," Todd said. The apheresis team at TOH collected his stem cells in preparation for the transplant. But another option had just emerged that promised to be more effective for his disease. Todd was a candidate for the newest cell therapy treatment option available at TOH: CAR T-cell therapy. "My hematologist Dr. Faught asked, 'are you on board?' and I said 'yes' ". Todd went through a second collection procedure. This time his cells were flown to California and manufactured into personalized cancer-killing cells. It took four short weeks to receive the newly engineered copies.

During this time, a different type of threat had emerged. The world was just learning about the rapid spread of a new, highly contagious, and deadly virus. COVID-19 is particularly concerning for patients like Todd. His cancer and treatments had battered his immune system and left him vulnerable to infection. With no visitors allowed in the hospital, the isolation of his admission was brutal. In his words, "it was the longest ten days of my life." But Todd persevered and, having no severe side effects, was able to go home to his family a bit earlier than expected. After a summer spent recuperating, he returned to his full-time role as department head of contemporary studies at Sacred Heart High School in time for the start of the 2021 school year.

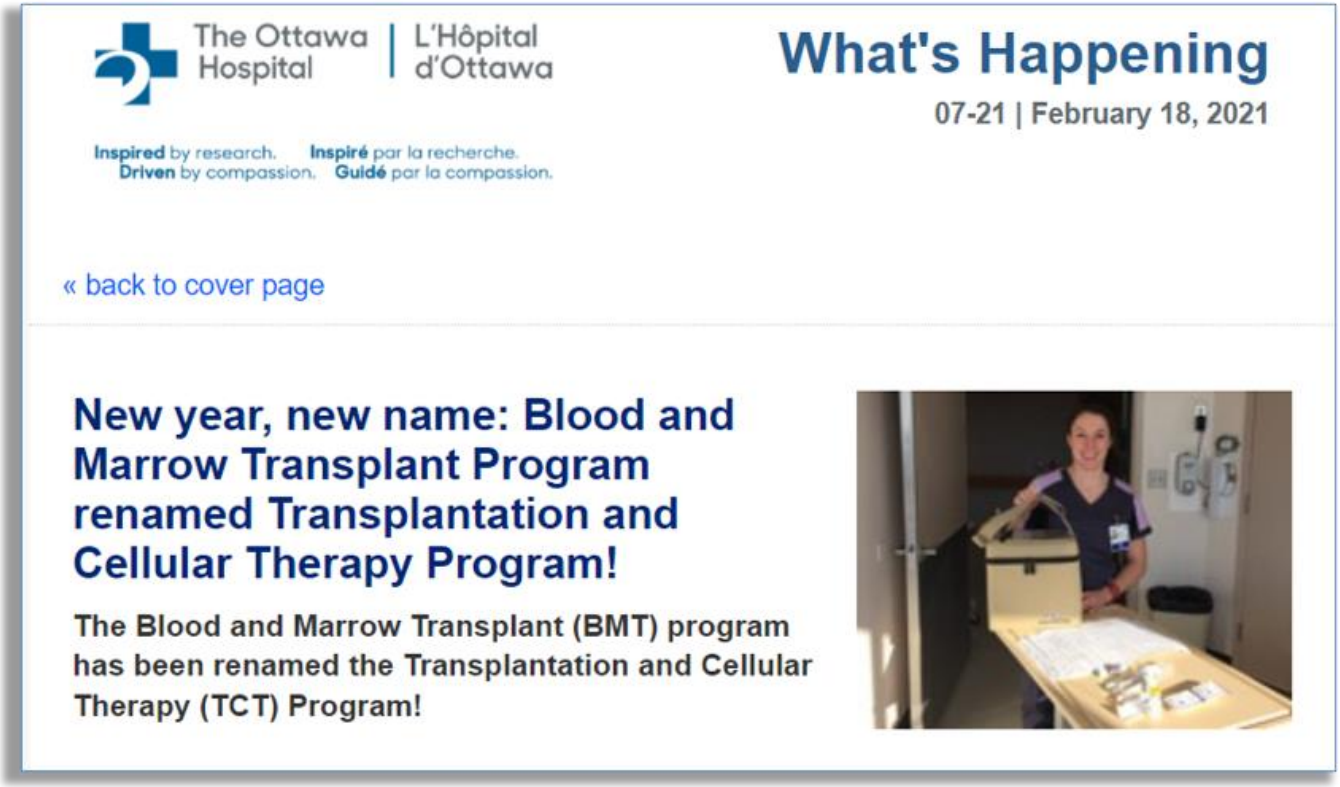
"I've found my pace. I'm doing things a bit differently now and trying not to stress. But I'm still teaching all my classes and not missing meetings", says the 52-year-old. Reflecting on the experience, Todd recalls, "the more I got outside, the better I was. You need fresh air. I think that's a big key to recovery". Todd credits the team for providing exemplary care while helping him through the process. "All the doctors and nurses were great. Linda Hamelin [Nurse Practitioner] was a big help, and it's a real team effort. You had lots of people to talk to about it and hear different opinions. I wouldn't want to do it again, but I am glad I did it. It's cutting edge, and there's lots of support at the Ottawa hospital, for sure".

PROGRAM ACTIVITIES

Program Makeover: BMT becomes TCT!

In 1981, the Bone Marrow Transplant program at TOH was created to offer new hope in the treatment of acute leukemia. When clinical science emerged to promote collection of stem cells from peripheral blood as an alternative to marrow, the program was renamed Blood and Marrow Transplant, conveniently keeping the same acronym. Forty years since the first patient admission, we have performed over 3771 transplants at TOH, and the field of blood cancer therapeutics continues to evolve. With our introduction of CAR T-cell therapy in late 2020, it was time for another change. The Transplantation and Cellular Therapy Program renaming was officially announced to internal and external stakeholders on February 18, 2021.

The new name aligns with modern affiliated societies representing this clinical specialty, such as Cell Therapy Transplant Canada (formerly Canadian Blood and Marrow Transplant Group) and the American Society for Transplantation and Cellular Therapy. While the name of the program has changed, we still fulfill the same corporate mission to provide each patient with the world-class care, exceptional service, and compassion we would want for our loved ones.



The Ottawa Hospital | L'Hôpital d'Ottawa

Inspired by research. Inspiré par la recherche.
Driven by compassion. Guidé par la compassion.

What's Happening

07-21 | February 18, 2021

« back to cover page

New year, new name: Blood and Marrow Transplant Program renamed Transplantation and Cellular Therapy Program!

The Blood and Marrow Transplant (BMT) program has been renamed the Transplantation and Cellular Therapy (TCT) Program!

Research Highlight – CLIC-01 Trial

2021 was a ground-breaking year for research in the program. Ten patients received potentially life-saving treatment for their blood cancers as part of the first made-in-Canada CAR T-cell clinical trial, CLIC-01 right here at TOH via the Ottawa Hospital Research Institute sponsored initiative. In this ongoing study, patient lymphocytes (white blood cells) are harvested at the TOH cell collection facility and hand-carried by volunteer couriers from the Bruce Denniston Bone Marrow Society to a specialized laboratory in Victoria, BC. The patient's cells are genetically engineered to attack the patient's cancer cells, expanded, and transported back to TOH for infusion. Once in the bloodstream, these cells get to work seeking out and destroying any remaining cancer cells not eliminated by chemotherapy alone. This trial offers a lifeline to patients for whom all other treatments have failed.

Preliminary results are highly encouraging and have been featured in national news. TOH hematologist and TCT physician **Dr. Natasha Kekre** (pictured above, right) and BC Cancer's Dr. Kevin Hay were recently awarded funding to launch another phase I first-in-human trial of CLIC-2201, a novel CAR-T cell product for the treatment of relapsed/refractory B-cell non-Hodgkin lymphoma, as principal investigators. TOH hematologist and TCT physician **Dr. Harold Atkins** is a co-investigator (pictured above, left).

Patients Made Happy by Virtual Group Education

Stem cell transplantation requires a comprehensive teaching strategy to ensure patients and their caregivers understand the procedure, risks, medications, symptom management needs, and recovery process. One-to-one nurse-patient interactions are resource-intensive, and in-person sessions present a challenge, with 51.5% of donor transplant candidates residing >100km from TOH last year. The emergence of the COVID-19 pandemic made in-person group teaching a non-starter. As a silver lining, the widespread use of online meetings due to the pandemic created a paradigm shift toward remote patient care. TOH took full advantage of this technology.

The TCT program launched a pilot bi-weekly allogeneic virtual group teaching session in September 2020 and saw overwhelming success. “I am passionate about using education and information sharing in both official languages to empower patients and their families,” says Debbie Bastien, TCT coordination nurse. “These sessions were developed to help decrease the anxiety of the unknown and to enable patients to make informed decisions about their care. We persevered despite COVID-19 and successfully launched online teaching using Zoom. Patients have been coming to appointments more informed and with a greater sense of control in an otherwise uncontrollable situation”. The teaching program now saves an estimated 75 nursing hours per year. It contributes to a high level of patient-reported confidence in their knowledge and the care provided by TOH staff. The TCT program will continue to look at novel applications of virtual education to improve patient experience.

23
Sessions

98
Attendees

97%
Satisfaction rating

Featured Publications

1. Adeel, K., Fergusson, N. J., Shorr, R., **Atkins, H. L.**, & Hay, K. A. (2021). Efficacy and safety of CD22 chimeric antigen receptor (CAR) T cell therapy in patients with B cell malignancies: a protocol for a systematic review and meta-analysis. *Systematic Reviews*. Advance online publication. https://doi.org/10.1186/s13643-021-01588-7
2. **Allan, D.** (2021). A timely CIBMTR analysis of how cryopreservation impacts allogeneic hematopoietic cell transplantation to apply in the COVID era. *Transplantation and Cellular Therapy, 27*(6), 446-447. https://doi.org/10.1016/j.jtct.2021.05.009.
3. **Aziz, J. A.**, Smith, C., M Slobodian, M., Du, I., Shorr, R., De Lisio, M., & **Allan, D.** (2021). Impact of exercise training on hematological outcomes following hematopoietic cell transplantation: A scoping review. *Clinical and Investigative Medicine, 44*(2), E19-26. https://doi.org/10.25011/cim.v44i2.36369
4. Bastin, D. J., Khan, T. S., Montroy, J., Kennedy, M. A., Forbes, N., Martel, A. B., Baker, L., Gresham, L., Boucher, D. M., Wong, B., Shorr, R., Diallo, J-S., Fergusson, D.A., Lalu, M. M., Auer, R. C., & **Kekre, N.** (2021). Safety and efficacy of autologous whole cell vaccines in hematologic malignancies: A systematic review meta-analysis. *Hematological Oncology, 39*(4), 448-464. https://doi.org/10.1002/hon.2875
5. Bose, G., Rush, C., **Atkins, H.**, & Freedman, M. S. (2021). A real-world single-centre analysis of alemtuzumab and cladribine for multiple sclerosis. *Multiple Sclerosis and Related Disorders*, 52, 102945. https://doi.org/10.1016/j.msard.2021.102945
6. **Buchan, C. A.**, Oi-Yee Li, H., Herry, C. L., Scales, N., MacPherson, P., Faller, E., **Bredeson, C. N.**, **Huebsch, L.**, **Hodgins, M.**, & Seely, A. J. (2021). Early warning of infection in patients undergoing hematopoietic stem cell transplantation using heart rate variability and serum biomarkers. *Transplantation and Cellular Therapy, 5*, S2666-6367. https://doi.org/10.1016/j.jtct.2021.04.023
7. Castillo, G., Lalu, M. M., Asad, S., Foster, M., **Kekre, N.**, Fergusson, D. A., Hawrysh, T., **Atkins, H.**, Thavorn, K., Montroy, J., Schwartz, S., Holt, R. A., Broady, R., & Presseau, J. (2021). Navigating choice in the face of uncertainty: using a theory informed qualitative approach to identifying potential patient barriers and enablers to participating in an early phase chimeric antigen receptor T (CAR-T) cell therapy trial. *BMJ Open, 11*(3), e043929. https://doi.org/10.1136/bmjopen-2020-043929
8. Castillo, G., Lalu, M. M., Asad, S., Foster, M., **Kekre, N.**, Fergusson, D. A., Hawrysh, T., **Atkins, H.**, Thavorn, K., Montroy, J., Schwartz, S., Holt, R. A., Broady, R., & Presseau, J. (2021) Hematologists' barriers and enablers to screening and recruiting patients to a chimeric antigen receptor (CAR) T cell therapy trial: a theory-informed interview study. *Trials, 22*(1), 230. https://doi.org/10.1186/s13063-021-05121-y
9. Chruscinski, A., Juvet, S., Moshkelgosha, S., Renner, E., Lilly, L., Selzner, N., **Bredeson, C.**, Grant, D., Adeyi, O., Fischer, S., Demetris, A. J., Zhang, J., Epstein, M., Macarthur, M., **Clement, A. M.**, Khalili, K., **Allan, D.**, **Altouri, S.**, **Bence-Bruckler, I.**, Cattral, M., **Fulcher, J.**, Galvin, Z., Ghanekar,

A., Greig, P., **Huebsch, L.**, Humar, A., **Kew, A.**, **Kekre N.**, Kim, T. K., **McDiarmid, S.**, Martin L., McGilvray, I., **Sabloff, M.**, Sapisochin, G., Selzner, M., Smith, R., Tinckham, K., Yi, T.J., Levy, G., & **Atkins H.** (2021). Autologous hematopoietic stem cell transplantation for liver transplant recipients with recurrent primary sclerosing cholangitis: A pilot study. *Transplantation, 106*(3), 562-574. https://doi.org/10.1097/TP.0000000000003829

10. **Fulcher, J.**, Berardi, P., **Christou, G.**, **Villeneuve, P. J. A.**, **Bredeson, C.**, **& Sabloff, M.** (2021). Nelarabine-containing regimen followed by daratumumab as an effective salvage therapy and bridge to allogeneic hematopoietic stem cell transplantation for primary refractory early T-cell precursor lymphoblastic leukemia. *Leukemia & Lymphoma, 62*(9), 2295-2297. https://doi.org/10.1080/10428194.2021.1901097
11. Halpenny, M., William, N., Elmoazzen, H., Giulivi, A., Martin, L., Perron, D., **Bredeson, C.**, **Hamelin, L.**, **Huebsch, L.**, Yang, L., Birch, P., & Acker, J. P. (2021). The importance of evaluating differences in HES formulations used in hematopoietic progenitor cell cryopreservation – *Cytotherapy, 24*(3), 223-224. https://doi.org/10.1016/j.jcyt.2021.09.006
12. Maganti, H. B., **Bailey, A. J. M.**, Kirkham, A. M., Shorr, R., Pinault, N., **& Allan, D.** (2021). Persistence of CRISPR/Cas9 gene edited hematopoietic stem cells following transplantation: A systematic review and meta-analysis of preclinical studies. *Stem Cells Translational Medicine, 10*(7), 996-1007. https://doi.org/10.1002/sctm.20-0520
13. Masson-Roy, J., Breiner, A., Warman-Chardon, J., Pringle, C. E., **Allan, D.**, **Bredeson, C.**, **Huebsch, L.**, **Kekre, N.**, **Kennah, M.**, Martin, L., **McDiarmid, S.**, **Altouri, S.**, **Atkins, H.**, & Bourque, P. (2021). Autologous hematopoietic stem cell transplantation for chronic inflammatory demyelinating polyradiculoneuropathy. *Canadian Journal of Neurological Sciences, 48*(6), 760-766. https://doi.org/10.1017/cjn.2021.30
14. Wilson, M., Thavorn, K., Hawrysh, T., Graham, I. D., **Atkins, H.L.**, **Kekre, N.**, Coyle, D., Lalu, M. M., Fergusson, D. A., Chan, K. K., Ollendorf, D. A., & Presseau, J. (2021). Stakeholder engagement in economic evaluation: Protocol for using the nominal group technique to elicit patient, healthcare provider, and health system stakeholder input in the development of an early economic evaluation model of chimeric antigen receptor T-cell therapy. *BMJ Open, 11*(8), e046707. https://doi.org/10.1136/bmjopen-2020-046707

WHAT'S NEXT?

Life after Transplant – Launch of a TCT Survivorship Clinic

Stem cell transplantation is a life-altering experience. So much attention is given to the transplant that people are often left wondering what's next in the weeks and months following discharge as they adapt to their post-transplant lives. New health concerns may arise due to the transplant treatment that requires careful monitoring by specialized clinicians.

TOH's TCT program takes great pride in its ability to offer world-class care within its weekly acute, short-term, and long-term follow-up clinic for transplant recipients in the months and years after their stem cell infusion. After stem cell transplant, we know that patients are at much greater risk of infection, cardiovascular disease, and secondary cancers. The current long-term clinic model addresses the core needs of ongoing symptom management for complications such as graft-versus-host disease but is missing a much-needed, multi-faceted approach. Many patients are at a healthy stage of recovery but need to take extra steps for health maintenance.

Our new survivorship clinic will build on our current care pathway to offer a more personalized long-term approach to health, ensuring patients in the program have access to appropriate and timely care specific to their needs. In this clinic, we will assess patients for post-transplant re-vaccination and immune system issues, high blood pressure, diabetes, high cholesterol, or signs of abnormal heart function. A nurse practitioner will meet with patients and provide recommendations for lifestyle changes and healthy living. The clinical team will also offer cancer surveillance to increase the chance of detecting any new malignancy as quickly as possible. This clinic will be established in Module L at TOH General Campus in 2022.

"It's a good opportunity for us to bring together the patient's circle of care at the hospital and in the community and engage their family doctor in the process," says Nurse Practitioner Erin Mutterback. "We will act as a resource providing that extra level of expertise in oncology, and specifically stem cell transplant, which is amazing."

Visit the Cancer Care Ontario website to learn more about survivorship care after stem cell transplant.