

Transplant & Cellular Therapy Center



Now offering the latest
cellular treatments including
CAR T-cell therapies,
Kymriah™ and Yescarta.™

What Sets Us Apart

- **High-volume center** performs about 160 blood and marrow transplants per year.
- **Access to clinical trials**, both cooperative group and investigator-initiated.
- **Comprehensive support services**, from Caregiver Orientation to Long-Term Survivorship Clinic.
- **Prompt evaluation**, within one week of referral (24 hours for critical cases).

Specialized Multidisciplinary Care

Roswell Park's Transplant & Cellular Therapy (TCT) Center brings together a multidisciplinary team of specialists in transplant, radiation, surgery, infectious disease, physical therapy, dentistry, cardiology, and pulmonary, renal, and gastrointestinal medicine, as well as nutrition and psychosocial support. Nursing staff are trained in the management and care of immune-compromised patients.



A Center Designed for Safety and Comfort

Roswell Park's TCT Center can accommodate more than 30 inpatients at one time. Private patient rooms feature High-Efficiency Particulate-free Air (HEPA) filtration to protect against airborne infections, a private bathroom, TV with DVD player, and a convertible easy chair so a loved one can stay overnight. Visitors (usually two at a time) are welcome 24 hours a day, seven days a week, and may relax, do laundry, or fix a snack in the adjacent solarium.

Outpatients are seen in a dedicated TCT outpatient center in the hospital.

OUR TEAM INCLUDES:

**Transplant and cellular
therapy physicians**

**Advanced practice practitioners
(nurse practitioners and physician assistants)**

TCT unit nurses

TCT coordinators

Infectious disease physicians

**Dedicated specialty
physician consults**

Dietitians

Clinical pharmacists

Psychologists

Medical social workers

Nurse case managers

Physical and occupational therapists

Respiratory therapists

Dentists

Financial counselors

Pastoral Care staff

Patient advocates

**Team members
collaboratively
develop a comprehensive
treatment plan for
each patient, meeting
daily to review
patient progress
and status.**

Comprehensive Transplantation Treatment

Our TCT Center provides both **autologous transplantation**, using the patient's own hematopoietic cells harvested from peripheral blood or bone marrow, and **allogeneic transplantation**, using a donor's peripheral blood, bone marrow, or cord blood. Our dedicated facility also provides these

Specialized Transplant Services:

- **Reduced-intensity conditioning and non-myeloablative transplant, which can make transplant possible for eligible patients up to age 80, depending on patient fitness**
- **Onsite collection and processing of blood and marrow**
- **World-class flow cytometry and laboratory support services**
- **Unrelated donor transplant**
- **Cord blood or Haplo-identical transplant for patients who do not have a fully matched donor**
- **Promising new methods of predicting and controlling transplant complications, including treatment side effects and Graft-versus-Host Disease**
- **Quality Management Program to ensure consistent high quality in clinical care, cell collection and processing at every stage of the transplant process**

ADULT PATIENTS

Roswell Park offers transplant for eligible adult patients between ages 18 and 80 for these diseases:

- Acute lymphocytic leukemia
- Acute myeloid leukemia
- Aplastic anemia and other marrow-failure syndromes
- Chronic lymphocytic leukemia
- Chronic myelogenous leukemia
- Hemoglobinopathies, including sickle cell disease and thalassemia
- Hodgkin lymphoma
- Multiple myeloma
- Myelodysplastic syndrome
- Myeloproliferative neoplasms, including myelofibrosis
- Non-Hodgkin lymphoma
- Selected solid tumors (malignant), such as testicular cancer

PEDIATRIC PATIENTS

Roswell Park offers transplant for eligible pediatric patients between ages 4 and 18 for these diseases:

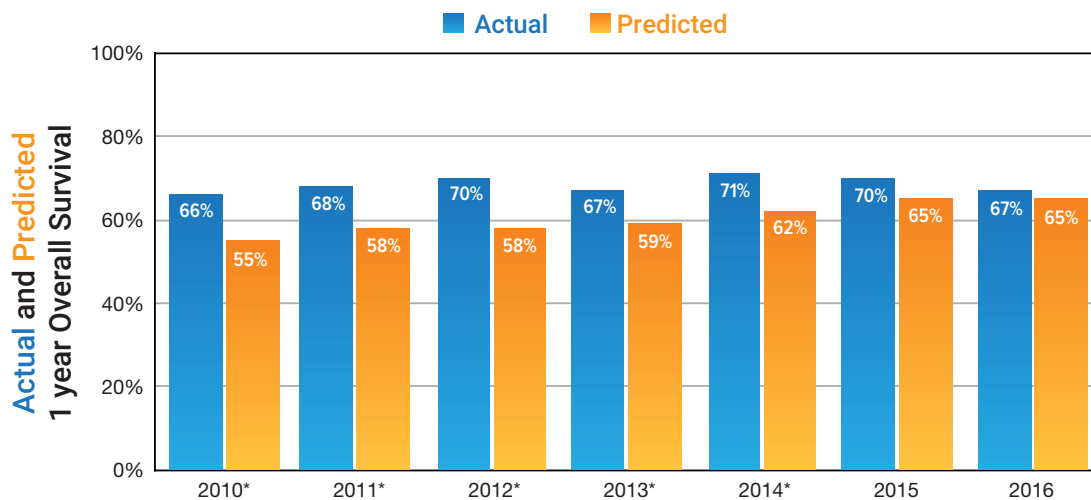
- Aplastic anemia, Fanconi anemia, and other marrow-failure syndromes
- Hemophagocytic lymphohistiocytosis (HLH)
- Leukemia
- Lymphoma
- Malignant brain tumors
- Myelodysplastic and myeloproliferative disorders
- Neuroblastoma
- Sickle cell disease
- Thalassemia



Our Patient Outcomes: Among the Nation's Best

Roswell Park's transplant program's actual one-year survival rate has consistently met or exceeded the expected one-year survival rate, as calculated by the Center for International Blood and Marrow Transplant Research (CIBMTR). The CIBMTR, under contract by the federal government and mandate by the Stem Cell Therapeutic and Research Reauthorization Act of 2015, collects outcome data on every allogeneic transplant performed in the United States. As a result, their clinical database now contains information on more than 350,000 transplant recipients.

Roswell Park Center-Specific Survival Analysis 2016



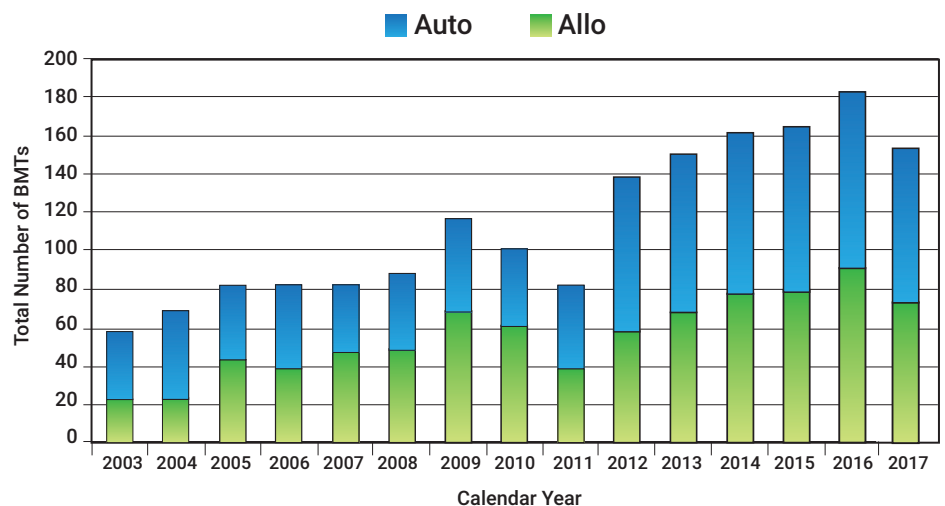
Analysis prepared by the CIBMTR (Center for International Blood and Marrow Transplant Registry). The 2016 report analyzes allogeneic transplant patients from 2012-2014, giving the expected and actual overall survival at 1 year.

*There is a significantly higher survival rate than predicted for 2010 to 2014 (above the 95% CI). For 2015 and 2016, the allogeneic transplant survival rate is higher and within the 95% CI. The predicted survival is based on patient characteristics and type of transplant.

Our Transplant Outcomes for Multiple Myeloma Patients

Between 2012-2016, Roswell Park's program performed **232 autologous peripheral blood stem cell transplants** (PBSCTs). All patients (100%) were alive 100 days after PBSCT, and greater than 97% were alive one year after PBSCT.

Number of Transplants per Calendar Year



Lifetime Lifeline

Roswell Park's Long-Term Survivorship Clinic

Our TCT Center is one of few to offer a long-term clinic for specialized follow-up care and monitoring for disease recurrence, secondary malignancy, treatment-related complications, and Graft-versus-Host Disease (GvHD). The clinic is open to all Roswell Park transplant and cellular therapy patients as a first priority. Patients who received transplants at other centers may also be evaluated at the long-term clinic.

It is expected that all patients will continue to see their primary care physicians and referring oncologists for general care. Roswell Park will keep you apprised of your patient's health during the transplant process and beyond.

The Long-Term Survivorship Clinic provides:

- ✓ **Clinical recommendations** for the unique complications that can result after treatment, including:
 - Premature bone loss
 - Dental and mouth problems
 - Cataracts
 - Thyroid changes
 - Cardiac problems, hypertension, hypercholesterolemia
 - Pulmonary problems
 - Infertility
 - Lack of stable engraftment
 - Side effects of corticosteroid use
 - Skin changes
 - Alopecia
 - Nausea, vomiting, or diarrhea
- ✓ **Specialty referrals** for gastrointestinal, renal, pulmonary, and dermatologic problems
- ✓ **Dental health monitoring** and recommendations for long-term dental care
- ✓ **Bone density surveillance** of patients receiving therapy who are high risk for premature bone loss
- ✓ **Re-immunization tracking** for patients who have undergone allogeneic transplant

Appointments in the Long-Term Survivorship Clinic are scheduled twice per week. Call 716-845-1444.

Supportive Care

Roswell Park surrounds patients and their families with a strong system of support before, during and after cellular therapy and transplant. Our Social Work and Supportive & Palliative departments help patients cope with the anxiety and stress of diagnosis and treatment. Medical psychologists, social workers, chaplains, and spiritual advisors are available at any hour for urgent needs.

Helping patients cope with the anxiety and stress of diagnosis and treatment

Cancer Pain Management Service develops a customized pain-management plan for every patient, drawing on the expertise of physicians, anesthesiologists, nurses, physical and occupational therapists, psychologists and social workers. Options include both medical and invasive procedures, biofeedback, relaxation training, and physical therapy. Roswell Park upholds the high standards of the National Comprehensive Cancer Network's pain-management protocols.

Caregiver Orientation prepares patients and their caregivers for every aspect of the transplant, including: post-transplant medical needs; finances; coping strategies for emotional, physical, and sexual issues related to transplant and unique problems experienced by caregivers. The patient and family receive a personalized care manual for later reference.

Financial counselors and Medicaid advocates help patients understand their insurance coverage, including participation in clinical trials. They work with third-party payers to secure authorizations and serve as advocates for patients, including patients from outside the U.S. Roswell Park does not deny services to the uninsured.

For more information: Social Work Department, 716-845-8022.

Case managers and social workers help with issues such as securing home care services, travel and lodging for out-of-town patients, and addressing other patient/caregiver needs during the post-transplant period.

Support groups are open to patients, family members, and caregivers at all stages of the treatment process.

For information: Social Work Department, 716-845-8022.

Resource Center for Patients and Families offers free cancer-related publications, access to computers/internet, and connection to reliable information about cancer diagnosis and treatment. The Center also houses a lending library of books, laptops, DVDs, and a boutique of free wigs, hats and scarves.



Our Research Expands Treatment Options

Many of our patients are enrolled on investigator-initiated or cooperative group clinical trials. Roswell Park is an active member of:

- Transplant Committee of the Alliance for Clinical Trials in Oncology Foundation (The Alliance—formerly Cancer and Leukemia Group B)
- Blood and Marrow Transplant Clinical Trials Network
- Chronic Graft-versus-Host Disease Consortium
- Pediatric Blood & Marrow Transplant Consortium
- Children's Oncology Group

Search clinical trials at roswellpark.org/clinical-trials

A few examples of our current research

- A Phase I/II dose escalation study to determine whether **BPX-501 infusion can facilitate engraftment, enhance immune reconstitution and potentially improve the graft versus leukemia (GVL) effect**, with the potential for reducing the severity and duration of severe acute GvHD.
- A Phase II multicenter trial to compare the proportion of multiple myeloma patients alive and in complete response at one year post autologous hematopoietic cell transplant between patients receiving **DC/myeloma vaccine/GM-CSF with lenalidomide maintenance therapy to those receiving lenalidomide maintenance therapy with or without GM-CSF**.
- An investigation of **cellular immune reconstitution and its effect on the clinical outcome** in patients undergoing allogeneic and autologous hematopoietic cell transplant (HCT).
- **Cellular therapy studies** in disease remission and cancer prevention, including CAR-T cell therapy and natural killer cell therapy.

Mining our rich database of transplant data

Roswell Park maintains a comprehensive database of critical information about the approximately 2,400 transplanted patients to date. The database is managed by a clinical epidemiologist who monitors our outcomes to develop new protocols, improve clinical care, and identify better ways to manage long-term survivors.

Roswell Park's Program
holds these distinctions:



Blue
Distinction®
Center
for Transplants



FOUNDATION FOR THE
ACCREDITATION OF
CELLULAR THERAPY
AT THE UNIVERSITY OF NEBRASKA MEDICAL CENTER



National
Comprehensive
Cancer
Network

Our transplant physicians
are members of:



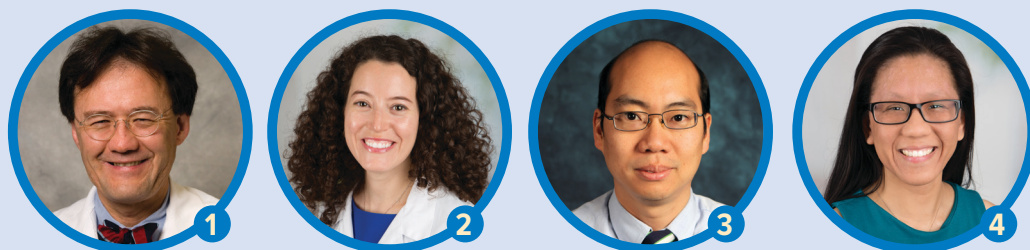
American Association
for Cancer Research



American Society of
Clinical Oncology



Meet the Team



- ➊ Philip McCarthy, MD
Director, TCT Program
- ➋ Sophia Balderman, MD
- ➌ George Chen, MD
- ➍ Christine Ho, MD
- ➎ Maureen Ross, MD, PhD
- ➏ Barbara Bambach, M
Pediatric TCT
- ➐ Meghan Higman, MD, PhD
Pediatric TCT



Early referral is essential

About 15% of patients who come to Roswell Park for evaluation cannot undergo transplant because they were referred too late. Preparation for transplant takes time. Even if your patient is currently in treatment or in remission, immediate referral is advised. Your patient can begin preliminary steps, donor search and collecting and storing stem cells. This expedites treatment should your patient require a transplant in the future.



To refer a patient, contact any of the following:

- ➊ Tracy Roach, Patient Access Coordinator
- ➋ Patricia Schultz, Patient Access Representative

716-845-8907



Elm & Carlton Streets | Buffalo, New York 14263
www.RoswellPark.org/rpmd
716-845-RPMD (716-845-7763)

A National Cancer Institute-Designated Comprehensive Cancer Center | A National Comprehensive Cancer Network Member
A Blue Distinction® Center Cancer Care | A Blue Distinction® Center for Transplants