

Genitourinary Cancer Center



Roswell Park is New York State's only
**National Cancer Institute (NCI) –
designated Comprehensive Cancer
Center** outside of New York City.

We are named a **Top Cancer Hospital**
by U.S. News & World Report Best
Hospitals 2017-18, with special distinction
for **High Performance in Urology**.

What Sets Us Apart

- **Physician team with oncology expertise**, focusing exclusively on cancer-specific disease management and development of cutting-edge surgical innovations and technological advances.
- **National Comprehensive Cancer Network (NCCN) guidelines-based practice**. An alliance of 27 leading cancer centers, the NCCN develops evidence-based clinical practice guidelines to promote and advance high-quality patient care.
- **Multidisciplinary approach** by a team of board-certified oncologists who assess every aspect of each patient's care, and can distinguish patients who should receive treatment in the form of surgery, chemotherapy and/or radiation, from those who can safely avoid or delay treatment with careful surveillance.
- **Clinical trials**, which provide access to the latest emerging treatments — immunotherapy, targeted agents and vaccines — and offer new hope to patients who fail conventional therapy.

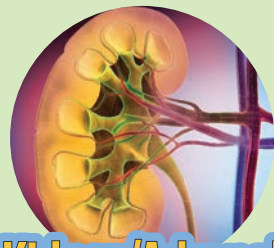
The Genitourinary Cancer Center

Our multidisciplinary team includes board-certified **urologists, medical and radiation oncologists, radiologists** and **genitourinary-dedicated pathologists** who collaborate to provide comprehensive and integrated care — under one roof.

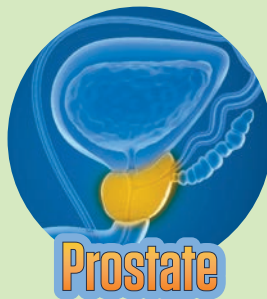
This approach ensures that each patient's treatment plan is optimally coordinated, based on best practices and medical necessity, and aligned with his or her cancer treatment goals. We provide cancer care for patients with all types and stages of malignant and associated disease of the urinary tract, including:



Bladder



Kidney/Adrenal



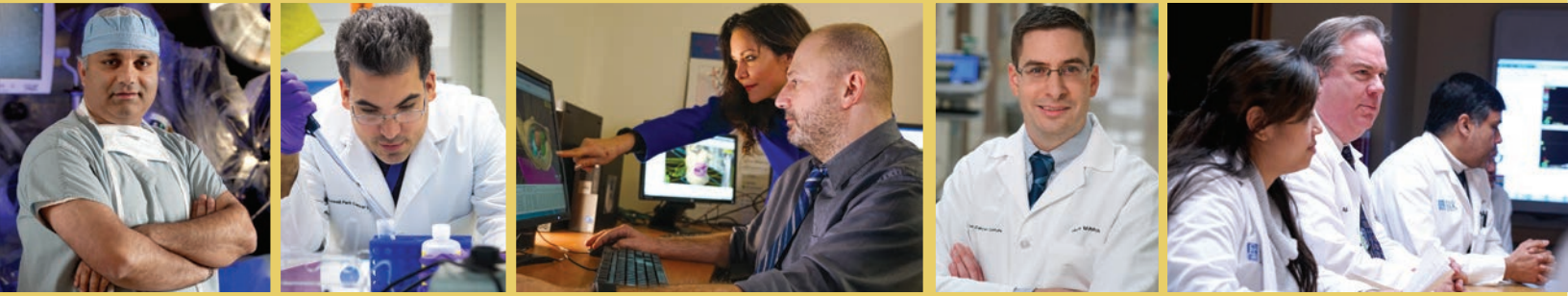
Prostate



Testes/Penis



Urethra



Roswell Park adheres to the highest quality measures and evidence-based treatment guidelines. In fact, we help establish them. Our physicians sit on several National Comprehensive Cancer Network (NCCN) panels that determine best practices for clinical care and write the treatment guidelines used throughout the world. These Roswell Park physicians serve on the following panels:

James Mohler, MD, Chair, Prostate Cancer; Prostate Cancer Early Detection

Michael Kuettel, MD, MBA, PhD, Prostate Cancer

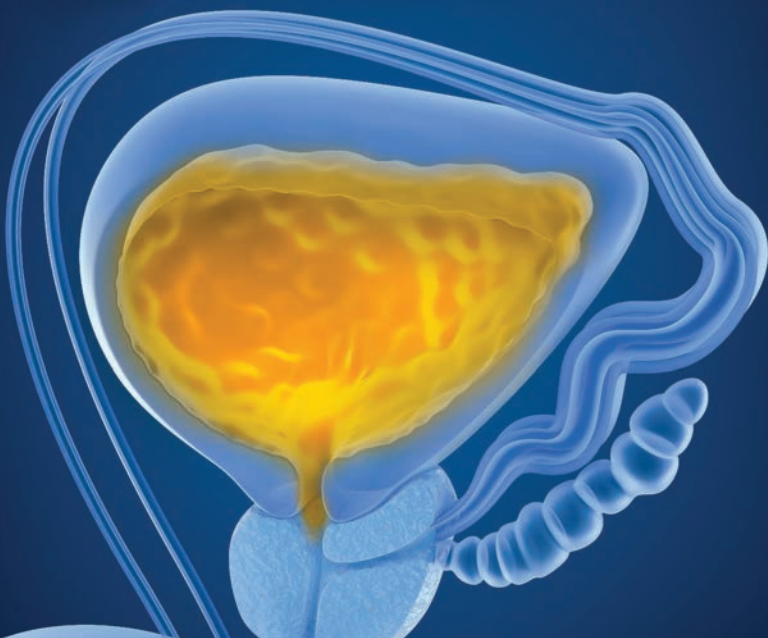
Khurshid A. Guru, MD, Bladder Cancer, Penile Cancer

Saby George, MD, Kidney Cancer

Ellis Levine, MD, Testicular Cancer



National
Comprehensive
Cancer
Network



Bladder

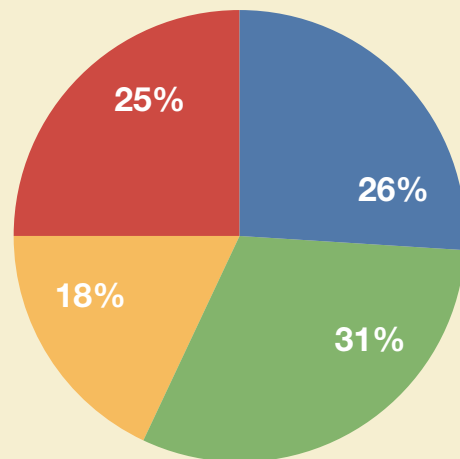
Highlights of Our Therapeutic Approaches

- **Neoadjuvant chemotherapy** prior to cystectomy is the new standard of care for patients with muscle-invasive bladder cancer and has been associated with improved survival. Almost all of our bladder cancer patients (>90%) are evaluated for eligibility for the treatment, and 40% receive it (compared to <20% nationally).
- **NEEW Cystectomy Pathway.** A clinical pathway developed at Roswell Park that integrates nutrition, exercise (physical therapy), patient education and wellness efforts into surgical management of bladder cancer. The pathway is based on best evidence-based practices that aim to shorten inpatient and ICU stays, reduce complications, expedite recovery and improve outcomes.
- **Minimally invasive surgical techniques.** We are a world-renowned center for robot-assisted surgery, performing radical cystectomy, lymph node removal and construction of urinary diversion with robot assistance since 2005. Today, 98% of our radical cystectomies are performed via robotic approach, the highest rate in New York State.
- **Advanced reconstructive surgery,** including ileal conduit and continent reservoirs such as orthotopic neobladder and our own recently developed intracorporeal technique for W-shaped neobladder.
- **Immunotherapy** with the latest FDA-approved drugs for treatment of advanced and metastatic bladder cancer.

OUR OUTCOMES

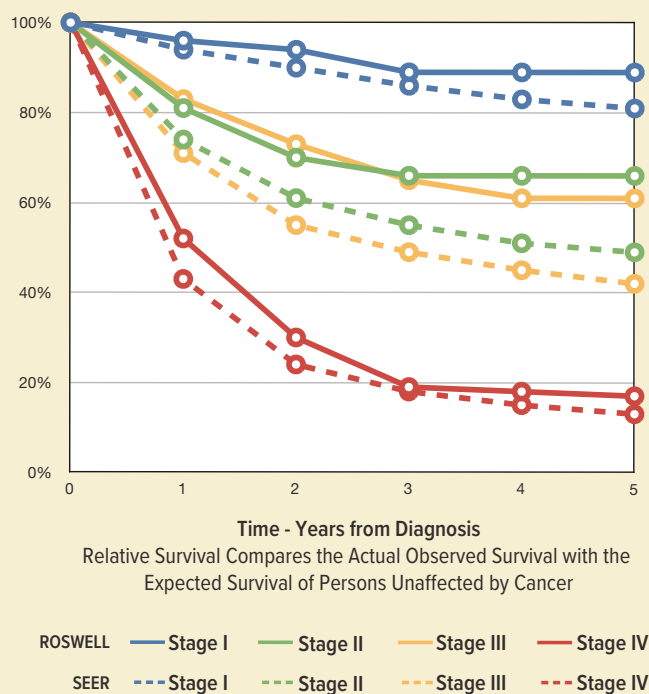
American Joint Commission on Cancer (AJCC) Stage Group, Bladder Cancer

Note: Stage at diagnosis for CY 2014-2015



■ Stage I ■ Stage II
■ Stage III ■ Stage IV

Survival Data Five-Year Bladder Cancer Survival, Stages I, II, III, IV Cases Diagnosed (2006-2013)



QUALITY ASSURANCE FOR Robot-Assisted Radical Cystectomy

Radical cystectomy is a complex and highly morbid procedure with a 5-year survival rate of 50% to 70%. To improve this, we developed and validated a way to assess the quality of a patient's robot-assisted radical cystectomy and evaluate oncologic outcomes.

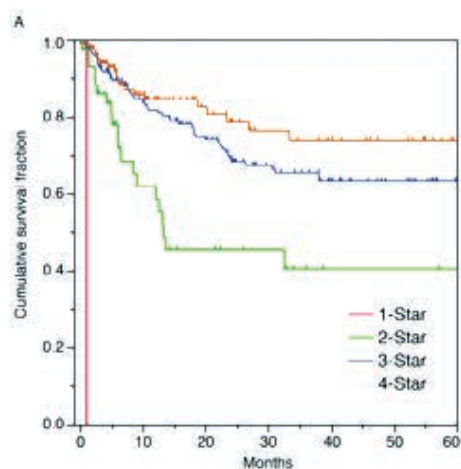
Our **Quality Cystectomy Score (QCS)** identifies 8 key quality indicators of successful surgical management of bladder cancer and assigns a 1- to 4-star rating to each procedure, based on the number of quality criteria met.



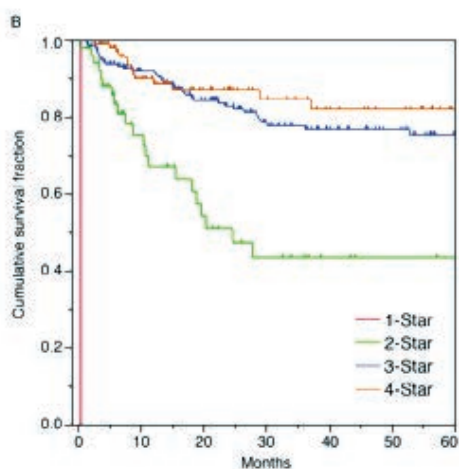
We reviewed a database of 425 consecutive robot-assisted radical cystectomies performed at Roswell Park between 2005 and 2015, assigning each procedure a QCS. *High QCS was associated with better recurrence-free, cancer-specific and overall survival.*¹

¹ Hussein AA, Dibaj S, Hinata N, Field E, O'Leary K, Kuvshinov B, Mohler JL, Wilding G, Guru KA. Development and validation of a quality assurance score for robot-assisted radical cystectomy: a 10-year analysis. *Urology*. 2016 Nov 30;97:124-9

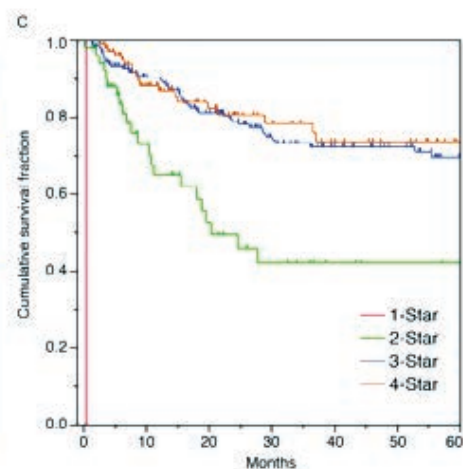
Kaplan-Meier curves demonstrating:
(A) recurrence-free survival



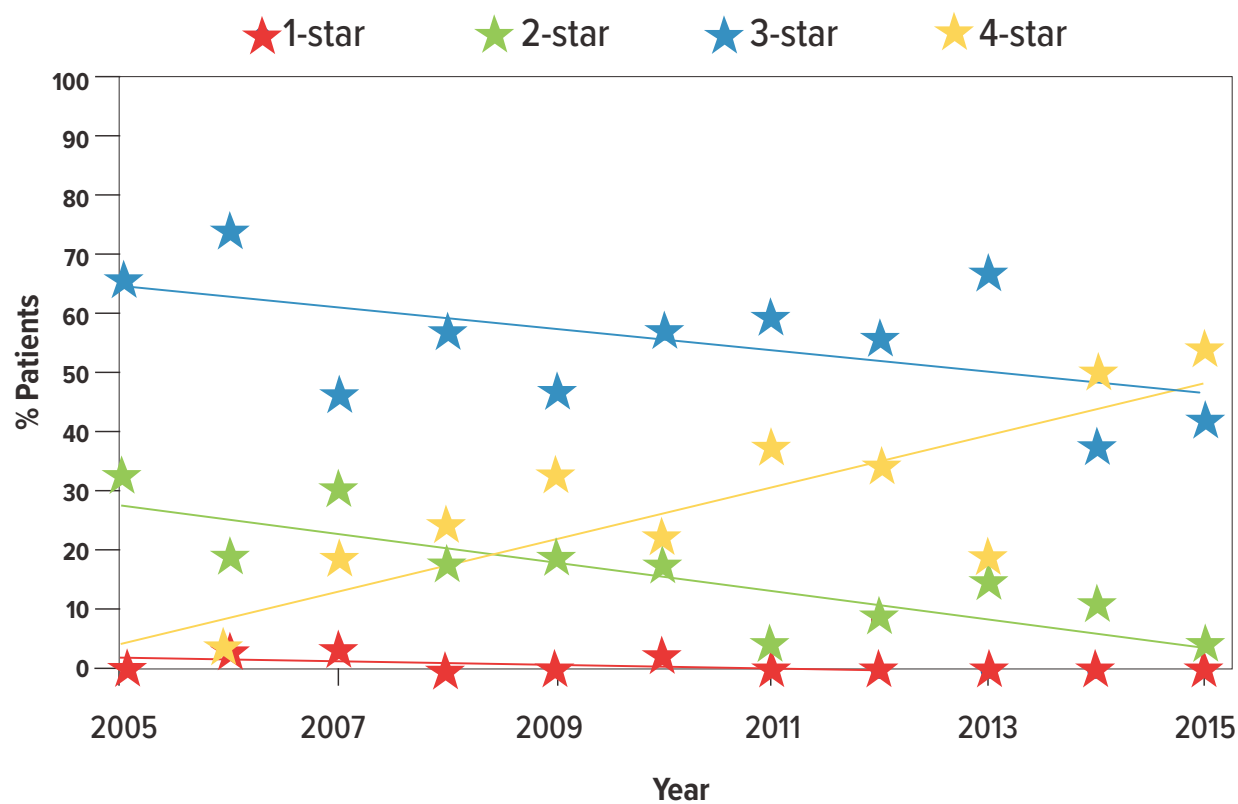
(B) disease-specific survival

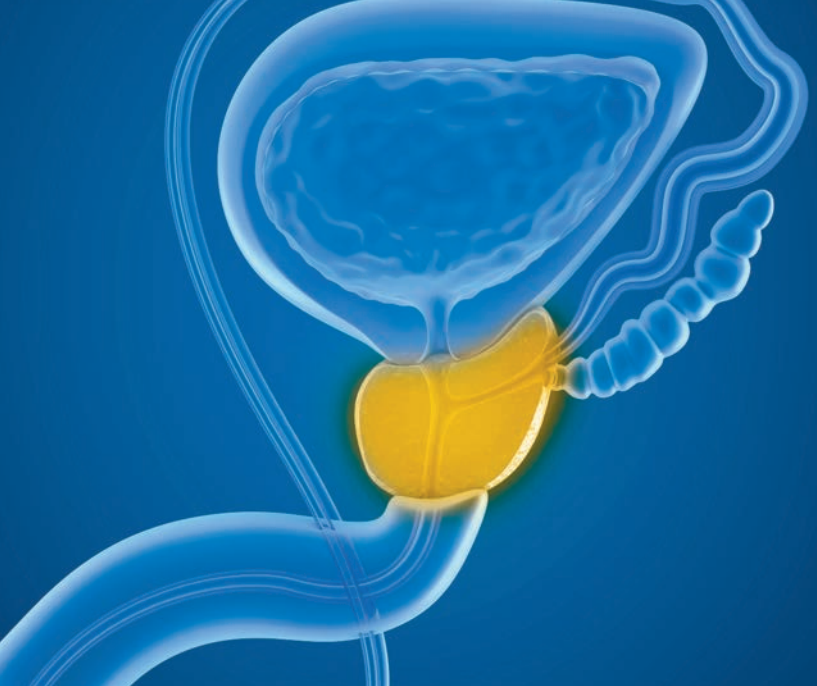


(C) overall survival based on
Quality Cystectomy Score



Quality Cystectomy Scores for 425 patients who underwent
robot-assisted radical cystectomy between 2005 and 2015





Prostate

Highlights of Our Therapeutic Approaches

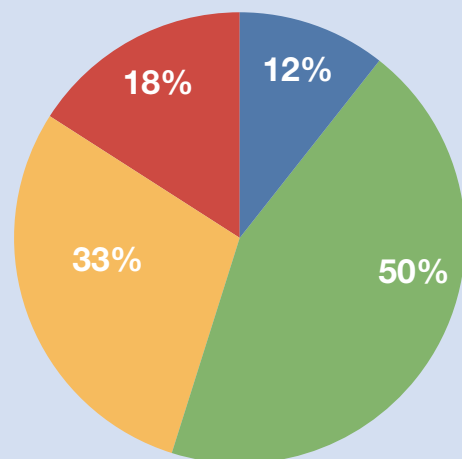
- **Robot-assisted radical prostatectomy.** With the experience of more than 1,600 procedures, we consistently perform above national average in achieving cancer-free margins, and preserving erectile function and urinary continence.
- **Androgen deprivation therapy & chemotherapy** for patients with metastatic and refractory disease.
- **Stereotactic Body Radiation Therapy (SBRT),** offering accelerated, more precise radiation in fewer treatment sessions.

HISTORY OF ACHIEVEMENT

Roswell Park pioneered the prostate specific antigen (PSA) test, which became a game-changer in early detection and management of prostate cancer.

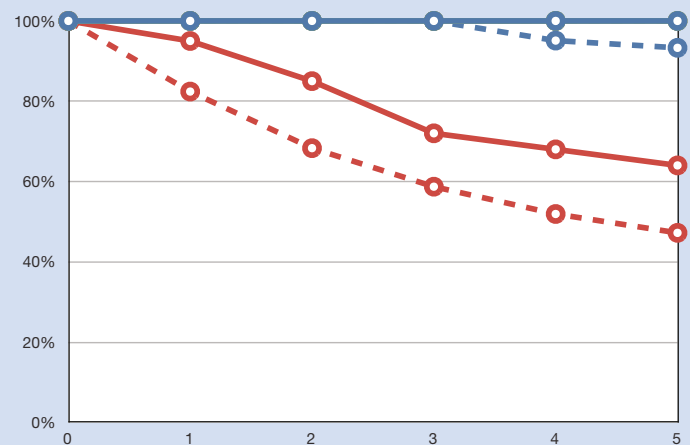
OUR OUTCOMES

AJCC Stage Group, Prostate Cancer
Stage at diagnosis for CY 2014-2015



■ Stage I ■ Stage II
■ Stage III ■ Stage IV

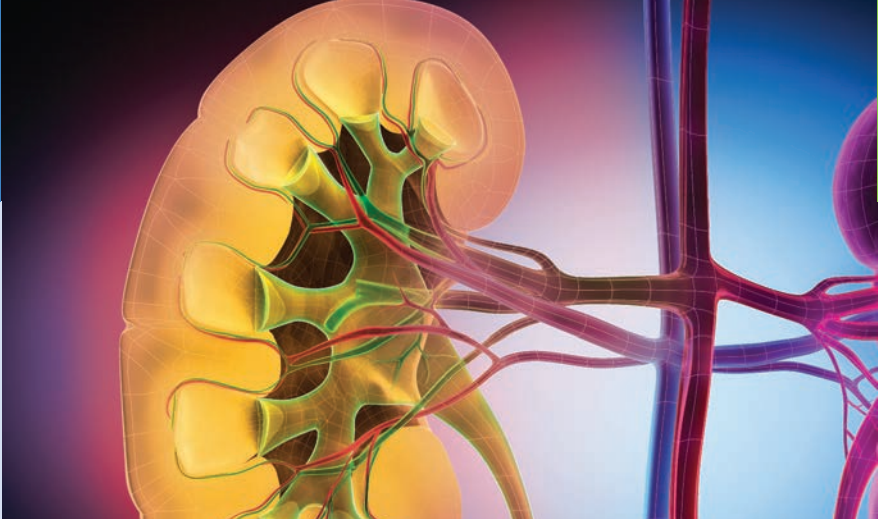
Survival Data
Five-Year Prostate Cancer Survival, Stages I, II, III, IV
Cases Diagnosed (2006-2013)



Relative Survival Compares the Actual Observed Survival with the Expected Survival of Persons Unaffected by Cancer

ROSWELL — Stage I — Stage II* — Stage III* — Stage IV
SEER - - - Stage I - - - Stage II* - - - Stage III* - - - Stage IV

*Survival for this Stage is 100%, the same as Roswell Park Stage I.



Kidney/Adrenal

Highlights of Our Therapeutic Approaches

- **Kidney-preserving techniques**, including surgical and ablative procedures (cryotherapy and radiofrequency and microwave ablation).
- **Minimally invasive robotic surgery** for partial and radical nephrectomy and adrenalectomy.
- **Targeted drug therapy** for patients with advanced and/or metastatic disease.
- **High-dose Interleukin-2 (IL-2) immunotherapy**. Roswell Park is one of few facilities worldwide to offer this therapy to select patients with metastatic RCC.
- **Complex kidney procedures** in cooperation with GI, vascular and cardiac surgeons for tumors that spread to major blood vessels, surrounding organs, or the heart.

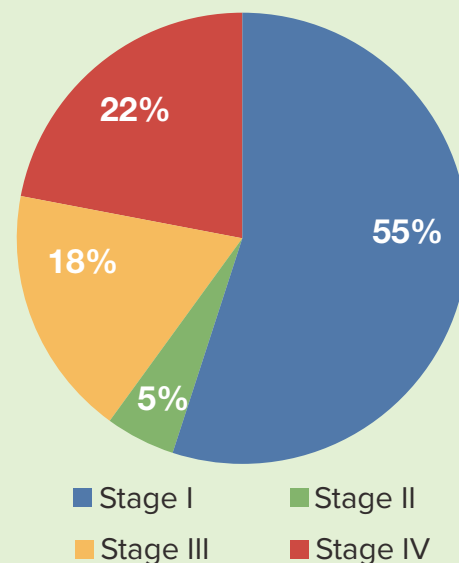
Testicular/Penile

Highlights of Our Therapeutic Approaches

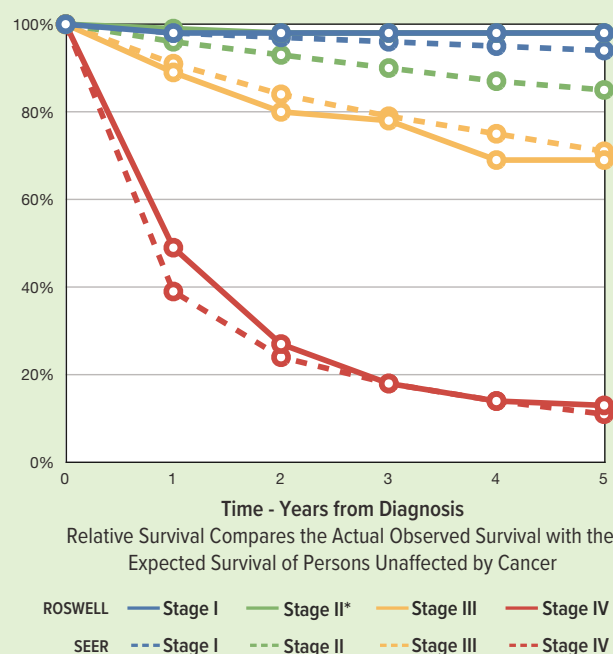
- **Fertility evaluation and preservation** for young patients; includes sperm banking and gonadal shielding during radiotherapy.
- **Radical Inguinal Orchiectomy**
- **Chemotherapy & Radiotherapy**
- **Stem Cell Transplantation**. Our Blood & Marrow Transplant (BMT) Center is a high-volume clinic, performing 160 transplants a year, and is one of the nation's top centers, achieving better-than-predicted patient outcomes.

OUR OUTCOMES

AJCC Stage Group, Kidney Cancer
Stage at diagnosis for CY 2014-2015



Survival Data
Five-Year Kidney Cancer Survival, Stages I, II, III, IV
Cases Diagnosed (2006-2013)



*Roswell Stage II is not visible because it is the same as Stage I.



Active Surveillance for Prostate and Kidney Cancer

Active surveillance provides an alternative management option for low-risk prostate cancer, allowing the delay or avoidance altogether of treatment morbidity. With an evidence-based schedule for monitoring with 3D Tesla MRI, ultrasound MRI, fusion biopsy and biopsy, the goal is to detect disease progression at its earliest point in order to initiate treatment without missing the window for cure.

Roswell Park is a leader in the field of prostate cancer active surveillance, and has among the largest number of patients currently managed with active surveillance in the region and nation. We also have a growing active surveillance program for kidney cancer patients with small and slow-growing kidney tumors. Our physicians always discuss the active surveillance option with patients before proceeding with any treatment.

Our Research of Active Surveillance (AS)

We compared two standard biopsy regimens for AS prostate patients at Roswell Park. Patients underwent either biopsy for-cause only (FCO) or for-cause as well as a scheduled annual or biannual surveillance biopsy (S+FC). The findings demonstrated that restricting surveillance biopsies for AS patients decreased the biopsy burden and was associated with fewer treatment conversions.

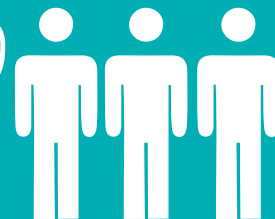
Table 1. Conversion from AS to treatment¹

	FCO	S+FC	p Value
No. pts	149	164	
No. conversion type (%):	13 (9)	29 (18)	0.02
Radical Prostatectomy	8 (62)	18 (62)	1.00
Radiation	3 (23)	9 (31)	0.72
Androgen deprivation therapy	2 (15)	2 (7)	0.58
No. treatment conversion reason (%):			
Pathological progression	6 (46)	19 (66)	0.31
Clinical progression only	2 (15)	3 (10)	0.63
Patient preference	5 (39)	7 (24)	0.46
No. prostatectomy pT stage (%):			
pT2	6 (75)	13(72)	1.00
pT3	2 (25)	4 (28)	
No. prostatectomy Gleason score (%):			
6	1 (13)	4 (23)	1.00
3+4	5 (63)	11 (67)	1.00
4+3	1 (13)	1 (6)	0.53
8+	1 (13)	1 (6)	0.53
No. prostatectomy any adverse pathology (%)*			
Median % gland prostatectomy	17 (7.5-53)	10 (5-10)	0.10 (0.48)
CaP vol (IQR)			

***Gleason primary pattern 4 or pT3.**

¹ Al-Tartir T, Murekeyisoni C, Attwood K, Badkhshan S, Mehedint D, Safwat M, Guru K, Mohler JL, Kauffman EC. Outcomes of scheduled vs. for-cause biopsy regimens for prostate cancer active surveillance. The Journal of Urology. 2016 Oct 31;196(4):1061-8.

About 40% to 50% of men diagnosed with prostate cancer can be safely monitored rather than undergoing immediate treatment.



Clinical Trials

Our robust clinical research program offers patients the very latest approaches and targeted and immunotherapy options, including:

- **Monoclonal antibodies** (e.g.: anti-PD-L1, anti-PD-1) in BCG-unresponsive bladder cancer, locally advanced bladder cancer, and as maintenance therapy after first-line chemotherapy in metastatic disease.
- Phase 1 studies of **oral small-molecule agents** on selected incurable cancers.
- Combination of **targeted therapy and monoclonal antibody** in patients with metastatic kidney disease or at high risk for kidney cancer relapse.
- **PARP inhibitor** for patients with metastatic, castration-resistant prostate cancer associated with homologous recombination deficiency.
- **Cholesterol-lowering drugs** prior to prostate surgery.
- Novel **vaccines** and **T-cell therapy** trials.

Comprehensive Supportive Care

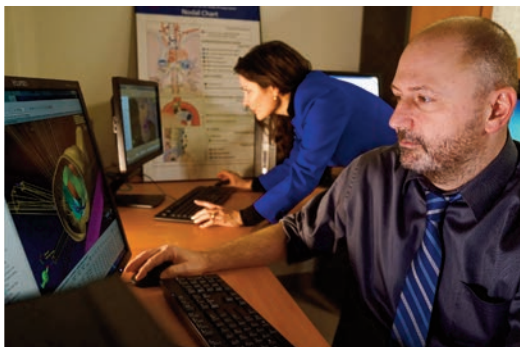
Our patients are surrounded by a range of supportive services aimed at addressing any physical, emotional, spiritual or practical need and include:

- **Quality of life support**, such as stoma care and an ostomy support group.
- **Rehabilitation medicine and prehabilitation therapy** to maximize physical ability, improve comfort and address incontinence and sexual side effects.
- **Supportive & Palliative Care** provides support and symptom management to patients facing difficult symptoms such as pain, nausea, poor sleep or anxiety, or who may feel overwhelmed or lack the support they need to get through treatment.



Clinical Care at Roswell Park

Patients are treated in disease site-specific comprehensive clinical care centers, where all possible treatment options are thoroughly evaluated. Our multidisciplinary teams — including medical, surgical and radiation oncologists, and specialists in hematology, gastroenterology, gynecology, urology, pulmonology, pediatrics and more — work together to ensure your patient's cancer treatments will be optimally coordinated and sequenced, and delivered with compassion and respect.



At Roswell Park, our patients have access to an extensive range of clinical and supportive services to address any need from diagnosis through treatment to long-term survivorship. These may include:

Supportive & Palliative Care

Psychosocial Oncology

Oncofertility Program

Genetic Counseling & Testing

Rehabilitation Medicine

Lymphedema Clinic

Advanced Endoscopy

Interventional Pulmonology

Plastic & Reconstructive Surgery

Our **patient advocates** and **navigators** are here to help patients and their families travel this uneasy road.

The **Chemotherapy & Infusion Center** spans two floors of the 11-story Scott Bieler Clinical Sciences Center and offers a panoramic view of Buffalo's downtown skyline and waterfront. Our professional staff, with special training in chemotherapy and other infusion treatments, reflect an unconditional commitment to patient comfort and safety.

Our **Radiation Medicine** Department offers the region's most technologically advanced and comprehensively equipped facility. The Radiation team's meticulous approach demands multiple steps — extra measures, care and attention at every phase of the treatment process — that set Roswell Park's quality and safety above others. Our patients receiving radiotherapy may park in a free, on-site parking lot.

Survivorship & Supportive Care Center brings together many Roswell Park professionals and services dedicated to the care of patients who have completed active treatment and now aim for a higher level of lifelong wellness. Our Survivorship team, in coordination with the primary physician, can help:

- Detect and manage any complications or side effects from cancer or its treatment.
- Restore body and soul with rehabilitative therapy, nutrition counseling and emotional support and guidance.
- Create a plan to serve as a road map to a healthier lifestyle.

Our **Pediatric, Adolescent and Young Adult Survivorship Center** offers a lifetime of care for people who have survived cancer at a young age. This center provides social support and guidance, legal and financial assistance, and medical and preventive care, including screenings and surveillance, vaccinations and management of symptoms such as fatigue, sleep problems and fertility issues.

High-Risk Clinics

For your patients who face a high cancer risk due to personal or family history, genetic mutations, cancer susceptibility syndromes, smoking history or other criteria, our high-risk clinics provide appropriate screening, surveillance and preventive options to manage risk for these cancers:

- **LUNG**
- **OVARIAN**
- **BREAST**
- **PANCREAS**

To learn whether your patient meets the criteria for these clinics, call **716-845-RPMD (716-845-7763)**.



URGENT CARE SUPPORT

ATC Hours

Monday – Friday
9 a.m. to 8:30 p.m.



Weekends
9 a.m. to 5 p.m.

The **Assessment & Treatment Center (ATC)** supports our patients with urgent but non-life-threatening symptoms that arise between appointments, after hours or on weekends. It is not a walk-in center. Patients should contact their Roswell Park treatment center who can refer them to the ATC for assessment and treatment by staff who have access to Roswell Park medical records. If their clinic is closed, patients should call **716-845-2300**.

After the ATC closes, patients should still call Roswell Park at **716-845-2300**. A Roswell Park physician is always available to help.

Resources for the Primary Care Physician

Meet Our Physician Relations Liaisons

Ashley Snowden

Ashley.Snowden@RoswellPark.org
or 716-845-3195



Joanne Wales

Joanne.Wales@RoswellPark.org
or 716-845-7492

If you have any questions about Roswell Park, please contact Ashley or Joanne.



Download our free mobile app — exclusively for physicians and physician offices — for a complete, up-to-date directory of Roswell Park physicians. Email or call to refer a patient or ask a question with a touch of a button.



ReachMD

Roswell Park's Online CME Series provides support and resources to community hospitals, physicians and other health professionals providing care for cancer patients in their own communities. Visit **RoswellPark.org/partners-in-practice**.



Clinical Trials Newsletter

Sign up for our eNewsletter at **roswellpark.org/partners-in-practice/sign-up** to stay informed about the latest options offered through clinical trials.



Calling Roswell Park

Calls to Roswell Park's main number (**716-845-2300**) are now handled by a new Central Access Center, staffed by a team of cancer information specialists and customer service representatives.

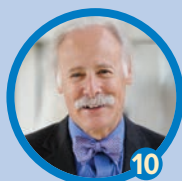
After-Hours Service (716-845-2300)

We are here for our patients around the clock, through the night and on weekends. All after-hours calls from patients and caregivers are handled by a nurse triage team in order to assess and manage any clinical concerns promptly and avoid unnecessary hospitalizations. Every call is important to us, and we assure you that no call from you or your patient will go unheeded.



Meet the Team

As a multidisciplinary comprehensive cancer center, we call upon highly skilled professionals from all areas of cancer care, dedicated to working collaboratively to treat the whole patient, not just the cancer.



Urology

- 1 Khurshid Guru, MD
- 2 Eric Kauffman, MD
- 3 Qiang John Li, MD, PhD
- 4 James Mohler, MD
- 5 Thomas Schwaab, MD, PhD

Medical Oncology

- 6 Gurkamal Chatta, MD
- 7 Saby George, MD, FACP
- 8 Ellis Levine, MD
- 9 Amy Early, MD, FACP
- 10 Marc Ernstoff, MD

Radiation Oncology

- 11 Michael Kuettel, MD, PhD, MBA
- 12 Anurag Singh, MD

Nuclear Medicine

- 13 Dominick Lamonica, MD

Anatomic Pathology

- 14 Gissou Azabdaftari, MD
- 15 Norbert Sule, MD, PhD
- 16 Bo Xu, MD, PhD

COMMUNITY CARE CENTER PHYSICIANS

Roswell Park Hematology Oncology Northtowns

Saif Soniwalla, MD
Frederick Hong, MD
Adam Kotowski, MD
Michael Krabek, MD, PhD
Bhuvana Ramkumar, MD

Roswell Park Hematology Oncology Southtowns

Isosceles Garbes, MD

Jamestown Medical Oncology & Hematology

Jairus Ibabao, MD

Roswell Park Hematology Oncology of Niagara

Bhuvana Ramkumar, MD

Contact Us

To refer a patient, call the **RPMD line at 716-845-RPMD (716-845-7763)**, Monday through Friday, 8 am-8 pm.

Your patient may prefer to receive cancer care closer to home at one of Roswell Park's community practices at these convenient locations.



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



UROLOGY

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