Your Guide to
Bladder Cancer Treatment at Fox Chase

Make an Appointment or Request a Second Opinion | 215-728-3098
Management of bladder cancer can be complex. If you or your family member has been diagnosed or suspects a diagnosis of bladder cancer, it is important that you have a good understanding of the diagnostic and therapeutic management strategies to best make an informed treatment decision.

The multi-disciplinary Bladder Cancer Team at Fox Chase Cancer Center is a regional and national leader in bladder cancer care. Our care philosophy is to put the patient first and develop an individualized treatment plan based on the wishes of patients and their loved ones. At Fox Chase, urologic oncologists, medical oncologists, and radiation oncologists work together to provide coordinated care and deliver the best possible clinical outcomes.
How common is bladder cancer?
Bladder cancer is the second most common genitourinary malignancy, and it has been estimated that there are more than 70,000 newly diagnosed cases of bladder cancer in the United States each year. Greater than 90% of bladder cancers are Urothelial carcinomas, while other types such as squamous cell carcinoma and adenocarcinoma are decidedly less common. Of newly diagnosed cases, 70-80% will present with non-muscle invasive (or superficial) disease, which consists of carcinoma in situ, non-invasive papillary carcinoma, and tumors invading the sub-epithelial lamina propria without detrusor muscle involvement. Of non-muscle invasive tumors, 50-70% will recur despite treatment, and up to 30% will progress to muscle invasive disease. Due to these recurrence and progression risks, there is a lifetime need for surveillance.

How is Bladder Cancer Diagnosed?
The most common presenting symptom in patients with bladder cancer is gross hematuria (blood in the urine that you can see) or microscopic hematuria (blood in the urine you can only see under the microscope), while irritative urinary symptoms such as urgency, frequency, or dysuria can also be common. A complete diagnostic workup includes direct endoscopic examination of the bladder (cystoscopy), radiographic imaging of the upper urinary tract (kidney and ureters), and urine cytology to assess for malignant tumor cells. Once a tumor has been diagnosed, transurethral resection (biopsy) is necessary to establish a histologic diagnosis and determine the cancer’s stage. If bladder muscle was not present in the biopsy specimen, the lesion can be understaged and a “restaging” procedure may be necessary (called a restaging TURBT). A restaging TURBT will repeat the biopsy to ensure that there is bladder muscle in the pathologic biopsy specimen to correctly diagnose the stage of your bladder cancer. At the time of initial resection, a single administration of Mitomycin C chemotherapy within the bladder (intravesical chemotherapy) less than six hours following surgery has been shown to reduce the risk of tumor recurrence.

How is bladder cancer treated?
Management is largely based on the depth of invasion demonstrated in the biopsy specimen.

Non-Muscle Invasive Bladder Cancer
Patients with low grade non-muscle invasive disease often only require frequent surveillance to detect recurrence. In contrast, it is currently recommended that patients with high grade, stage T1 (tumors invading the lamina propria) disease, or carcinoma in situ (CIS) undergo induction BCG therapy, which has been shown to prevent tumor recurrence and may reduce the risk of tumor progression. Induction treatments typically begin 2 to 4 weeks following transurethral resection and are most commonly administered weekly for a six week interval. Further, the most durable tumor responses have been demonstrated with...
undergoing subsequent maintenance BCG therapy, although the optimal timing and duration has not been established and is often at physician discretion.

**Are there alternatives to BCG intravesical therapy?**
The use of BCG can be limited by its side effect profile and approximately 20% of patients will be unable to tolerate therapy. A number of alternative intravesical agents exist for patients that are intolerant to or progress despite BCG therapy, including BCG with interferon, Valrubicin, Gemcitabine, and others. In some patients with BCG refractory T1 tumors and CIS who are at high risk for disease progression, early radical cystectomy may be the most appropriate therapy.

**Muscle Invasive Bladder Cancer**
For patients with clinically localized muscle invasive bladder cancer, the gold standard treatment is radical cystectomy (removal of the prostate, bladder, and seminal vesicles in men) or anterior pelvic exenteration (removal of the bladder, uterus, ovaries, and anterior vagina in women), extended regional lymphadenectomy (removal of the regional lymph nodes), and creation of a urinary diversion.

**What are the options for urinary diversion?**
In general, there are three options for urinary diversion.

1. An incontinent urinary diversion (ileal conduit), which drains to an external bag, is the simplest diversion to perform and is associated with the fewest post-operative complications.

2. A continent catheterizable urinary diversion utilizes the right colon and uses the ileocecal value for continence (Indiana or Koch pouch) via a small opening in the abdominal wall. This technique avoids a stomal appliance but requires lifelong catheterization to ensure emptying.

3. A continent orthotopic urinary diversion (neobladder or studer pouch) is a technique utilizing a segment of small bowel or colon to create a pouch that is placed back in the pelvis and is re-attached to the urethra. This avoids the need for abdominal drainage and is the most cosmetically appealing. Fox Chase Cancer Center offers all types of urinary diversions in the appropriately selected patient.

**Should I undergo minimally invasive or traditional surgery?**
Removal of the bladder and creation of a urinary diversion can be performed via either an open or minimally invasive/robotic fashion with equivalent results. At centers with significant experiences, minimally invasive surgery can result in decreased post-operative pain, reduced blood loss and need for transfu-
sion, shortened hospital length of stay, and a more appealing cosmetic result. Minimally invasive surgery is performed with the same goals as traditional surgery, to achieve maximum cancer control and excellent functional results.

**Should I undergo systemic chemotherapy?**
Recent evidence has suggested that administration of neoadjuvant cisplatin based chemotherapy (systemic chemotherapy administered prior to surgery) be considered in all patients with ≥stage II (muscle invasive or locally advanced) bladder cancer, although adjuvant chemotherapy (systemic chemotherapy administered following surgery) may be appropriate in some patients.

**Are there alternatives to removal of the bladder?**
In select circumstances, bladder preserving therapies for muscle invasive bladder cancer include partial cystectomy, localized radiotherapy, or radical transurethral resection in combination with radiotherapy and systemic chemotherapy. These modalities offer the potential for decreased morbidity, nerve preservation for potency, improved patient body image, and maintenance of bladder function in very carefully selected patients.

**Locally Advanced or Metastatic Bladder Cancer**
In patients with locally advanced or systemic disease, the role of surgery shifts to palliation for the relief of symptoms, including pain, bleeding, voiding complaints, and fistula formation, although resection of regional lymph node metastases may be beneficial in some patients. In patients presenting with metastatic disease, cisplatin based chemotherapeutic regimens including methotrexate, vinblastine, doxorubicin, and cisplatin (MVAC), and gemcitabine/cisplatin (GC) are currently considered gold standard treatments.

**Are there alternatives to chemotherapy for patients with advanced disease?**
Patients with locally advanced or systemic disease may be candidates for clinical trials investigating novel translational, targeted, and immune based therapies currently under evaluation. Fox Chase Cancer Center actively participates in a number of institutional as well as cooperative group clinical trials for patients with advanced bladder cancer.

In summary, management of bladder cancer can be complex, and treatment options have changed dramatically over the past decade. The Fox Chase Bladder Cancer Treatment Team strongly believes that an informed patient is an empowered patient and that patient education and counseling is vital to ensuring the best possible cancer and quality of life outcomes. We take a tremendous amount of pride in providing world class, individualized care for patients diagnosed with bladder cancer. Make an appointment with one of our experts today.

"I appreciate Dr. Kutikov…and the Fox Chase team of associates, nurses and staff for the greatest care in the world.. I am cured ... thank you, Fox Chase!"

Ted Ritter

Read More Testimonials
http://www.fccc.edu/whyChoose/testimonials/bladder/index.html

Make an Appointment or Request a Second Opinion | 215-728-3098
Fox Chase Bladder Cancer Care Team

Dr. Robert G Uzzo, MD, FACS
Chairman
Surgical Oncology

Alexander Kutikov, MD
Attending Surgeon
Urologic Oncology

Marc C Smaldone, MD
Attending Surgeon
Urologic Oncology

Rosalia Viterbo, MD, FACS
Attending Surgeon
Urologic Oncology

Richard E Greenberg, MD, FACS
Chief,
Urologic Oncology

David Y T Chen, MD, FACS
Attending Surgeon
Urologic Oncology

Marijo Bilusic, MD, PhD
Attending Physician
Medical Oncology

Elizabeth R Plimack, MD, MS
Attending Physician
Medical Oncology

Yu-Ning Wong, MD, MSCE
Attending Physician
Assistant Professor

The Fox Chase Cancer Care multispecialty team of doctors and other medical professionals are waiting to hear from you.
Map

For directions by car and public transportation, call 1-888-FOX CHASE or visit our website at www.foxchase.org/information/directions

Fox Chase Cancer Center
333 Cottman Avenue
Philadelphia, PA 19111

Fox Chase Cancer Center
50 Huntingdon Pike
Rockledge, PA 19046

Make an Appointment or Request a Second Opinion | 215-728-3098