



Evidence-based Treatment of Advanced or Metastatic Urothelial Cancer

A Patient and Family Resource

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TREATMENT OPTIONS



FAQS



GLOSSARY

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TREATMENT OPTIONS

Bladder cancer is the sixth most common type of cancer in the United States. Urothelial cells are the type of tissue that line the bladder and urinary system within the body. Cancer in these cells may affect the bladder, ureters, collecting system of the kidneys, and other tissues along the urinary system.

People who have had their cancer spread beyond the urinary system (advanced disease) or to other parts of the body (metastatic disease) may receive one or more of the following drug treatments.



Chemotherapy drugs have been available for many years. These drugs are frequently given into the vein through an intravenous line, or IV infusion. Chemotherapy works broadly to kill cells that are reproducing rapidly and because cancer cells reproduce more rapidly than normal healthy cells, chemotherapy kills cancer cells at a higher rate.



Examples are cisplatin, gemcitabine, carboplatin, doxorubicin, methotrexate, vinblastine, and mitomycin C.



Side effects of chemotherapy will depend on the drug being used. Possible side effects could include nausea and vomiting, mouth sores, hair loss, numbness and tingling of the hands or feet, constipation, diarrhea, tiredness, hearing loss or ringing in the ears, loss of appetite, dry mouth, decreased kidney function, damage to the heart, and/or low blood counts that can increase risk of infection, anemia (or low red blood cells that carry oxygen to your body), and bleeding.



Targeted therapy works by “targeting” processes inside the cancer cell, stopping them from reproducing and causing cancer cells to die. These medications can have different types of side effects because they target specific functions in the cancer cells and can avoid some of the damage to healthy cells.



Examples are enfortumab vedotin, which is given intravenously, and erdafitinib, given as a tablet taken by mouth. Pills must be taken exactly as prescribed for them to be effective.



Side effects of enfortumab vedotin can include fatigue, rash or itching, nausea, diarrhea, diabetes, low blood counts, blood chemistry changes, dry mouth or mouth sores, taste changes, kidney damage, and/or eye problems such as visual changes or dry eyes.

Side effects that can happen with erdafitinib include mouth sores and taste changes, blood count and blood chemistry changes, diarrhea, fatigue, nail changes, effects on the liver or kidneys, eye problems such as retinal detachment or retinopathy, and rash or itching.





Immunotherapy drugs are the newest type of cancer treatments and work very differently than chemotherapy or targeted therapy. These are given by IV infusion. Immunotherapy uses your own immune system to fight off the cancer.



Examples are pembrolizumab, nivolumab, and atezolizumab.



Common side effects of immunotherapy include rash, tiredness, diarrhea, diabetes, and disturbances to liver, lungs, and thyroid gland. Because the immune system is used to fight the cancer, immunotherapy can cause inflammation to any organ or tissue in your body.





PATIENT QUESTION

NURSE RESPONSE

What is the difference between chemotherapy, immunotherapy, and targeted therapy?

Each type of drug treatment works in a unique way and has a risk of their own side effects. Please read through the differences in [Treatment Options](#).

Why would I receive one treatment before another?

Drugs are studied with large numbers of people who have different types of cancer to decide which drug or combination of drugs works best on a particular cancer. Results of these studies will be considered with your type and stage of cancer, and your overall general health to determine the best treatment for you. Your doctor may test the tumor for specific biomarkers that could indicate if your cancer is thought to be sensitive to certain treatments.

What is a cycle of therapy? What does it mean that I will receive 4, 6, or any number of cycles?

A treatment cycle will include the number of days when treatment is given, followed by a certain number of rest days. For example, someone may receive several treatment drugs in the first week of a cycle, then have three weeks of rest before the next cycle begins. The treatment, combined with the rest time, is called a treatment cycle and they are often 3–4 weeks. Your provider will recommend a certain number of cycles based on information learned in clinical trials and your specific situation.

Why do I have blood drawn before each treatment?

Blood is drawn to determine how your normal blood cells in your body are reacting to the treatment. Your blood work can tell your healthcare team if you are at risk for infection, may need a blood product transfusion, or can safely receive or continue upcoming treatment. Blood samples also check for a healthy balance of blood chemicals and to see if your liver and kidneys are functioning well. Many laboratory tests are included in the glossary on the next page.

How do I know if my treatment is working?

When being treated for advanced or metastatic disease, repeat imaging (CT scan or MRI) or other tests are used about every 2–3 cycles to measure the tumor and compare with the previous imaging.

I was told I need a “CT scan with contrast.” What is contrast and why would I need it?

CT contrasts are “dyes” that highlight structures and organs in the body to make it easier to find abnormalities and tell normal from abnormal findings. There are two types of contrast given for CT scans of the abdomen and pelvis. One is oral which you would drink shortly before the scan. The other is given into your vein through an intravenous line during the scan. People with poor kidney function may not be able to receive the IV contrast. A CT scan of the chest usually does not require contrast.


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LABORATORY AND TESTING GLOSSARY

Blood urea nitrogen, creatinine, creatinine clearance are blood tests which measure how well your kidneys are working to filter your blood. Creatinine clearance can also be measured using a 24-hour urine collection. Tumor, blockages, kidney disease, and certain medications can cause changes in kidney function.

Complete blood count is a group of blood tests that measure your blood cells, which are made in your bone marrow. These cells include white blood cells, which are involved in protecting you from infection, red blood cells, which carry oxygen, and platelets, which are involved in blood clotting.

CT scan (often called “Cat Scan”) stands for a computed tomography (CT) scan. This is a test that uses computers and x-rays to make cross-sectional (like slices of bread) pictures of the body’s organs and provide more details than plain x-rays. They may require you drink a liquid and/or receive IV dye.

Liver function tests, known as LFTs, are a group of tests that determine if the liver and gall bladder are functioning well. Tumors, liver disease, blockages, and certain medications are some of the causes of changes in liver function.

MRI, or magnetic resonance imaging, uses a magnetic field in computerized waves to make very detailed images of the organs and tissues. Like with a CT scan, the pictures are cross-sectional, meaning they can see deep inside the body. MRI usually requires an IV injection of dye.

Nadir is the time when your blood counts are at their lowest point, usually about 7–10 days after receiving chemotherapy.

Neutrophils are one of the types of white blood cells that help protect you from infection. This is the blood count that may delay your treatment if it is too low. It is important that you call if you develop a fever of greater than 100.4° F when your white blood cells are low.

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RESOURCES

- American Urologic Association (AUA): <https://www.auanet.org/education/bladder-health-month/patient-education-materials>
- Cancer.net's Guide to Bladder Cancer: <https://www.cancer.net/cancer-types/bladder-cancer>
- Bladder Cancer Advocacy Network: <https://bcan.org/>
- National Cancer Institute: <https://www.cancer.gov/types/bladder>
- Check the website for major medical centers. They often have very good patient cancer information which you can access by clicking on bladder cancer.

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