

# Immunotherapy for Urothelial Cancer



## What is Immunotherapy for Urothelial Cancer?

Urothelial cancer (UC) of the bladder, renal pelvis, ureter and other urinary organs is very common in the United States. Major gains with immunotherapy have led to better results for advanced UC patients.

Immunotherapy is any treatment that makes the immune system stronger. For cancer, it helps the body's immune system find and destroy cancer cells. The main types of immunotherapy to fight urothelial cancers are called Immune Checkpoint Inhibitors. Clinical trials are testing many new options.

## What Types of Immunotherapy are used for UC Patients?

There are signals on the body's cells that stop immune cells from attacking normal groups of cells. These signals are called "checkpoints." Cancer cells, which are not normal, use normal checkpoints to hide from an immune system attack.

Immune Checkpoint Inhibitors are drugs that can block checkpoints on the surface of cancer cells so they can't hide. This way the immune system can find and attack the cancer. Some checkpoint proteins are:

- PD-1
- PD-L1
- CTLA-4

Major gains with immunotherapy have led to better results for advanced UC patients who don't respond to chemotherapy. There are five immunotherapy drugs approved to treat advanced UC:

- Atezolizumab
- Durvalumab
- Avelumab

*These 3 checkpoint inhibitors target the PD-L1 protein. Given intravenously for advanced cancer.*

- Nivolumab
- Pembrolizumab

*These 2 checkpoint inhibitors target the PD-1 protein. Given intravenously for advanced cancer.*

Many more immunotherapies and combinations are being tested.

## What are Common Side Effects of Immunotherapy?

Treatment with immunotherapy depends on the health of the patient and the exact diagnosis. There are often mild or no side effects. More serious effects could involve autoimmune health problems like thyroid problems, high blood sugar or colitis; or high blood pressure, rash, loose stools, lung or liver problems.

The standard way to handle side effects from treatment is to change the drug dose or use steroids to slow down the immune response. Sometimes a steroid will also be used for adrenal problems.

You can limit side effects by doing a few helpful things, such as:

- Drink 10-12 cups of water each day.
- Wash your hands and keep your teeth clean.
- Try to eat plant-based foods and limit processed foods.
- Try to get a lot of sleep.
- Use anti-nausea medicine if you have an upset stomach.



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Try to ask questions! Your health care team can often help.

You should always tell your health care team if you have strange symptoms. You'll want to get care quickly if you have chest pain, bloody stool with stomach pain, fever, yellowing skin or eyes, numbness, throwing up or other discomforts. If you have any bad responses like these, your health care team should help you right away. They may suggest changing or stopping your therapy.

Most of the time, people handle immunotherapies very well. For most patients, the benefits of these treatments outweigh the problems.

### Questions to Ask your Doctor:

It's of great value to talk openly and ask your health care team questions like:

- Am I a good choice for an immunotherapy drug? If so, which drug do you think is best for me, and why?
- How will my past health care impact the way immunotherapy could work for me?
- What can I do to prevent or handle side effects– and who should I call if I'm having problems?
- Are there any tests I should take before treatment to see if I'm a good choice?
- What are my chances of a cure with immunotherapy?
- If immunotherapy doesn't work, what else I can do?
- Can you tell me about a clinical trial near me?
- Are there healthy living tips that will help me feel better?

### About the Urology Care Foundation

The Urology Care Foundation is the world's leading urologic foundation – and the official foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make health changes. Our information is based on the American Urological Association resources and is reviewed by medical experts. To learn more, visit the Urology Care Foundation's website, **UrologyHealth.org/UrologicConditions** or go to **UrologyHealth.org/FindAUrologist** to find a doctor near you.

### Disclaimer:

This information is not a tool for self-diagnosis or a substitute for professional medical advice. It is not to be used or relied on for that purpose. Please talk to your urologist or healthcare provider about your health concerns. Always consult a health care provider before you start or stop any treatments, including medications. For more information, visit **UrologyHealth.org/Download** or call 800-828-7866.

