

# Combination Immunotherapy for Kidney Cancer



## What is Combination Immunotherapy for Kidney Cancer?

Immunotherapy is a strong type of care that works with our immune systems. This type of care reaches cancer cells that have spread in the body and stop them from growing. Kidney cancer (renal cell carcinoma, or RCC) can outsmart immunotherapy and cells can “hide” from the immune system. Research has found ways to slow down advanced RCC by combining types of immunotherapy. This is called combination immunotherapy. New combinations can control advanced RCC and stop its growth for longer times.

Combination Immunotherapy helps the body's immune cells (T cells) attack more cancer cells than with one drug alone.

## What Types of Combination Immunotherapy are used for RCC patients?

Combination immunotherapy helps the body's immune cells (T cells) find and fight cancer. For some people, this could stop the cancer and shrink tumors. For others, the drugs may not work. Right now, there are thousands of clinical studies testing many combinations, for many cancers. Many of these combinations are showing promise for RCC patients.

Immunotherapy is made up of antibodies, or proteins that fight infection, vaccines, viruses and other agents that make T cells more likely to attack cancer cells.

Those used for RCC are:

- Interleukin-2 (IL-2)
- Nivolumab

- Ipilimumab
- Pembrolizumab
- Avelumab

Checkpoint inhibitors are immunotherapies that block the proteins in cancer cells that help them hide. This lets T cells find and attack cancer cells. Combination therapies with checkpoint inhibitors to treat advanced RCC are:

- Axitinib and avelumab
- Axitinib and pembrolizumab
- Bevacizumab and atezolizumab

Monoclonal antibodies are proteins made to attach to a cancer cell, so T cells can find them more simply, or to attach to T cells to make them work harder. Combinations with monoclonal antibodies to treat advanced RCC are:

- Nivolumab with ipilimumab
- Axitinib with avelumab
- Atezolizumab with bevacizumab

## What are Common Side Effects of Immunotherapy?

When you take more than one cancer drug at once, you can go through more problems, such as autoimmune problems. Feeling tired or weak, having a cough, high blood pressure, upset stomach and colitis or loose stools can be common with combination therapy. Doctors often give combination therapy to people with no other major health problems other than their cancer.



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

- Drinking 10-12 cups of water each day
- Washing your hands and keeping your teeth clean
- Trying to eat plant-based foods and limit processed foods
- Trying to get a lot of sleep
- Using anti-nausea medicine if you have an upset stomach

Try to ask questions! Your health care team can often help you cope with side effects. 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, wheezing or coughing, yellowing skin or eyes, or other discomforts. Fluid loss, mouth sores, blisters, pain in your joints, numbness or throwing up may also happen.

If you have any bad reactions, call your health care team right away. They may suggest changing or stopping combination therapy.

## Questions to Ask your Doctor:

Talking with your health care team can help. Here are some you may ask about combination immunotherapy:

- What treatment choices do I have at this stage?
- Can you tell me more about combination immunotherapy?
- Which combination do you think is best for me, and why?
- How do these combinations work?
- Will my past care impact the way this care will work?
- What can I do to stop or handle side effects – and when should I call you?
- Are there any tests I should take before I start this care?
- If immunotherapy doesn't work, what else I can do?
- Are there healthy living tips to 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:

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