Ovarian cancer is a growth of cells that form in the ovaries and can quickly multiply destroying healthy tissue. Ovarian cancer remains a very deadly disease in part because it's often diagnosed at later stages. If the cancer has spread, it's even harder to treat. But there have been advances that many hope will improve the prognosis.

I would say over the last decade, there has been a huge shift in the way that we treat ovarian cancer. I think the biggest impact has come from a family of drugs called PARP inhibitors, PARP. This family of drugs have completely revolutionized the way we treat ovarian cancer from the initial diagnosis, through the recurrence, and the entire spectrum really of ovarian cancer treatment.

Welcome everyone to Mayo Clinic Q&A. I'm Deedee Stiepan, sitting in for Dr. Halena Gazelka. Ovarian cancer ranks fifth in cancer deaths among women, accounting for more deaths than any other cancer of the female reproductive system. Ovarian cancer often goes undetected in the early stages, and once the cancer has spread to the pelvis and the abdomen, it's more difficult to treat. Treatment options for ovarian cancer depend on the stage at which the cancer is diagnosed. Joining us to discuss the latest treatments for ovarian cancer is Mayo Clinic medical oncologist, Dr. John Weroha. Welcome to the program, Dr. Weroha. Thanks for joining us.
Hello, and thank you for inviting me. It's my honor to be here and my pleasure to talk about something that's really important for what I do.

Absolutely. So, let's start off how common is ovarian cancer?

So, it's actually not the most common cancer in women. But as you pointed out, it is the most deadly. It's about the 11th most common cancer in women, so it's not up there in terms of being common, but it's definitely up there in terms of being very serious.

And why is it that ovarian cancer is often diagnosed at later stages?

Unfortunately, it presents with very common symptoms, and these common symptoms are things that everybody will complain about at some point, for example constipation, bloating, maybe a little distension, maybe a little weight gain. These are very common symptoms, and oftentimes people just kind of blow it off as being normal. So, that's how it kind of hides and grows.

Okay, gotcha. And so, is it mostly just those common symptoms? Are there any other signs and symptoms of ovarian cancer?

There could also be some pain. Depending on where the cancer is there can be pain, but there's usually no bleeding. So, that's not going to be a trigger. Sometimes people will eat a little bit of food and feel full very quickly. We call it early satiety. That's just a sign that there's a lot of pressure going on in the abdomen. Some women will have increased urgency to use the restroom. I often describe it as symptoms or signs of being pregnant.

Are there known risk factors for developing ovarian cancer?
There are a few risk factors. I think the biggest one that we know about is having a family history of breast or ovarian cancer, because there is a gene that can become mutated. And if that gene is mutated, it can definitely increase your risk of developing ovarian cancer in the future. I would also point out too, that we refer to this as ovarian cancer, but there are other cancers that we kind of clump into the same group, fallopian tube and primary peritoneal cancer, they are all treated the same. And it's possible that ovarian cancer and fallopian tube cancer actually have the same origin.

You mentioned treatment, so let's get into that. How is ovarian cancer typically treated?

Yeah, so the standard of care across the country is going to be some combination of surgery and chemotherapy. There's differences and it's probably not too important about whether you do surgery first followed by chemo, or chemo first followed by surgery, but there is some combination of that. Chemotherapy is very standard. It's Carboplatin and Paclitaxel. Another standard way to give chemotherapy is intraperitoneal, meaning the chemotherapy is delivered directly into the abdomen through a catheter. But most people these days, I think are giving the chemotherapy through the veins in the arm.

So, how do physicians decide what the best treatment approaches are for the patient?

The major decision is whether you do surgery first or chemo first, and that decision is based on risk factors. How likely is somebody to do well or not well with a surgery first option, and the surgeons are very good at making these predictions as to who is going to be a good candidate for upfront surgery, versus those patients who really need to have chemotherapy first, which we call a neoadjuvant chemotherapy, followed by surgery, and then followed by yet even more chemotherapy. So, there are things that we look at, for example the surgeons will look at the extent of disease, how much cancer is there throughout the body, and is there a good chance that they can remove it all with surgery? If the answer is yes, then probably surgery will happen first. The other thing they will look at some blood work. In that blood work, they will pay attention to the nutritional status of the patient. And we assess this by looking at a protein called albumin. So, albumin reflects the nutritional status. And if that is too low, then that patient has really high risk for a bad outcome and will probably not have surgery first. Those are just a few of the things that we look at.
Okay, so is Mayo Clinic's approach to ovarian cancer treatment, is it different from the approach used at other cancer centers?

I would say for the most part we're the same around the country. But I would say that we tend to do more upfront surgery followed by chemotherapy, where other institutions may prefer to do upfront chemotherapy followed by surgery, followed by more chemotherapy. But I think the other thing that we would do differently is we are constantly looking for clinical trial options to basically give our patients a therapy that we think will be better than the current standard of care, but we haven't proven it to be better yet.

Can you tell us about some promising new treatments that are being developed for ovarian cancer?

Yeah, so I would say over the last decade, there has been a huge shift in the way that we treat ovarian cancer. I think the biggest impact has come from a family of drugs called PARP inhibitors, PARP. This family of drugs have completely revolutionized the way we treat ovarian cancer from the initial diagnosis, through the recurrence, and through the entire spectrum really of ovarian cancer treatment. These PARP inhibitors have really changed. The current clinical trials are really focused on how do we make those PARP inhibitors work even better. And in addition to that, we're seeing a lot of clinical trials that are using what are called antibody drug conjugates. These are drugs where there is an antibody that recognizes a very specific part of the cancer cell, but it brings with it a chemotherapy that's attached to this antibody. And this approach allows the chemotherapy to go directly to the cancer and minimize the toxicity of the normal tissues like bone marrow, and liver, and kidney, and that sort of thing. So, I have a feeling that the next wave of new therapies to get approved will be one of these antibody drug conjugates. We're seeing very promising results with one in particular.

Well, that is great news to hear. Dr. Weroha, is there anything else that you wanted to add? Anything else you think is important for people to know?

I think one of the biggest misconceptions that I see with patients is that clinical trials are supposed to be a last resort, and that is absolutely not true. What we do at Mayo, and really everywhere else, is we try to bring clinical trials to our patients, not because we want to test
whether or not this brand new drug works, but we already believe the drug works. We're already biased. We think it's going to work. And what we want to do is we want to give that to our patients because they can't get it any other way except through a clinical trial. And the other thing I would point out is that these clinical trials give you the opportunity to receive a drug that might be the next blockbuster drug of the future, and we believe it to be a great drug, otherwise we would never even offer it to our patients. The reason why you shouldn't consider a clinical trial late and you should consider clinical trials early, is because many of them will exclude you if you've had too much chemotherapy in your lifetime.

DeeDee Stiepan 09:23
Very interesting points. Thank you so much for adding that. Our thanks to Mayo Clinic medical oncologist, Dr. John Weroha, for being here today to discuss the latest treatments for ovarian cancer. Thanks so much for your time. We appreciate it.

Dr. John Weroha 09:35
My pleasure.

Narrator 09:35
Thank you. Mayo Clinic Q&A is a production of the Mayo Clinic News Network and is available wherever you get and subscribe to your favorite podcasts. To see a list of all Mayo Clinic podcasts, visit newsnetwork.mayoclinic.org. Then click on podcasts. Thanks for listening and be well. We hope you'll offer a review of this and other episodes when the option is available. Comments and questions can also be sent to mayoclinicnewsnetwork@mayo.edu.