Castration-Resistant Prostate Cancer (CRPC) occurs when prostate cancer no longer responds to hormone therapy (also called androgen deprivation therapy or ADT), and the PSA begins to rise. Treatment is usually managed by adding different types of medicines to ADT, including additional hormonal therapies, chemotherapy, or immunotherapy.

Locally Advanced Prostate Cancer has spread beyond the outer layer of the prostate into nearby tissues. Locally advanced prostate cancer is considered nonmetastatic.

Metastatic Prostate Cancer has moved beyond the prostate to another organ such as the bones, lymph nodes, or liver. When metastatic prostate cancer is a new diagnosis in a patient who has not been recently treated with ADT, ADT with or without chemotherapy is the standard treatment approach. When patients who have been on ADT have a new diagnosis of cancer that has moved beyond...
types of advanced prostate cancer. PARP inhibitors affect how DNA is repaired in cancer cells. Previously, PARP inhibitors were approved to treat women with certain breast, ovarian, and pancreatic cancers.

Questions to Ask the Doctor

- Do I have the right mutation? What test will you use to find out? What does a positive test mean for my family and me?
- Is a PARP inhibitor the right treatment for me?
- What side effects could I expect? How are these side effects managed?
- How will my healthcare team check and monitor for side effects?
- Are there options to help me pay for the medicine?

How do PARP inhibitors work?

There are two major ways to repair DNA damage in cells. If one fails, the other can make up the difference. PARP inhibitors interrupt (or prevent) one DNA repair system from working. Cells with mutations like BRCA1 and BRCA2 have a decreased ability to repair DNA damage in the second system. If both ways to repair the DNA in a tumor cell are stopped, DNA damage adds up and that causes the tumor cells to die.

What are the potential side effects?

Both medications are taken orally twice daily. Common side effects include problems like nausea, vomiting, constipation or diarrhea, feeling tired or having less energy, and decreased blood cell counts. Blood draws will need to be taken every four weeks, or possibly more often based on your doctor’s guidance. These drugs may also cause rash or changes in liver function tests that are usually temporary.

Some patients treated with these drugs have developed a blood cell disorder (acute myeloid leukemia or myelodysplastic syndrome) that causes very low blood cell counts. This side effect has not been reported in prostate cancer patients. Your healthcare team will monitor you for this side effect. If you develop this side effect, your healthcare team will stop PARP inhibitor treatment.

For more information, please talk to your doctor about these side effects and what can be done to manage them should they occur.

the prostate to another organ, this typically indicates the development of castration-resistant prostate cancer. The treatments available include additional hormonal therapies, chemotherapy, or immunotherapy.

**Metastatic Castration-Resistant Prostate Cancer (mCRPC)** is when the prostate cancer has moved beyond the prostate to another organ and is no longer responding to hormone therapy. There are several options available for men with castration-resistant prostate cancer, including immunotherapy, chemotherapy, and radiopharmaceuticals.

**TREATMENTS**

Chemotherapy is the use of intravenous or oral drugs to kill rapidly dividing cells, including cancer cells and other cells in the body, which can lead to hair loss and the development of mouth sores or ulcers.

Clinical Trials help the medical community develop new treatments and determine the timing, dosage, or combination of treatments for prostate cancer that may lead to better patient outcomes.

Hormone Therapy includes ADT and neoadjuvant hormonal therapy (NHT). Hormonal therapies work in different ways to stop or inhibit the actions of the male hormones (androgens), such as testosterone. When prostate cancer still responds to hormonal treatments and spreads throughout the body to another organ, such as the bones, the disease is now mCRPC.

Immunotherapy is a unique type of treatment that trains the body's immune system to fight cancer in men with mCRPC. Immunotherapy uses immune cells to attack advanced prostate cancer. The cells are taken from the patient with prostate cancer, activated to fight the cancer, and returned to the body.

PARP Inhibitors are a group of pharmacological inhibitors of the enzyme poly ADP ribose polymerase. Several forms of cancer are more dependent on PARP than regular cells, making PARP an attractive target for cancer therapy.

What Are PARP Inhibitors?

In 2020, two oral medications that are part of an exciting class of drugs called PARP inhibitors were approved by the U.S. FDA for treatment of certain
Which patients are good candidates for PARP inhibitors?

Rucaparib (RUBRACA) is approved for men with metastatic castration-resistant prostate cancer who have BRCA gene mutations and have already received prior therapies. Patients should have received an androgen-directed therapy AND a taxane-based chemotherapy. For more information, visit rubraca.com.

Olaparib (LYNPARZA) is approved for men with metastatic castration-resistant prostate cancer who have specific DNA damage repair mutations which includes BRCA mutations. Patients should have received an androgen-directed therapy previously. For more information, visit lynparza.com.

Clinical Trials Corner

In this section, you’ll learn about clinical trials, and whether they may be right for you.

Clinical trials are scientific research studies that further medical advancements by providing critical data necessary for approval of new therapies by the U.S. Food and Drug Administration. Trials help determine if a new therapy is safe and effective for patient care.

Talk to your doctor to see if a clinical trial might be right for you. For a list of current clinical trials for advanced prostate cancer, visit zerocancer.org/clinicaltrials, or read on in this section.

Introducing P-PSMA-101: CAR-T for Prostate Cancer

The P-PSMA-101-001 study is a Phase 1 clinical trial now enrolling patients with metastatic castration-resistant prostate cancer at multiple locations in the United States. Conducted by Poseida Therapeutics, this study is testing P-PSMA-101, a new CAR-T immunotherapy.

P-PSMA-101 is made from a patient’s own white blood cells that have been genetically modified in a lab to target cells that express a protein called PSMA. PSMA is commonly located on the surface of prostate cancer cells and P-PSMA-101 is designed to kill cancer cells with this target. P-PSMA-101 is given via an intravenous infusion and you may be eligible to receive one or more infusions during the study. The purpose of this study is to determine if P-PSMA-101 is safe and will help treat patients with metastatic prostate cancer. You may be eligible for the study if you have progressing metastatic castration-resistant prostate cancer, and you have already been treated with a second-generation hormone therapy and a chemotherapy called a taxane, or if you have not been treated because you declined or were ineligible.

For more information about the P-PSMA-101-001 study, including hospitals enrolling patients, visit the study registry at clinicaltrials.gov/ct2/show/NCT04249947 or contact Poseida at (858) 779-3103 or email clinicaltrials@poseida.com.

Clinical Trials Highlights: Merck

Merck is committed to our mission of finding new treatments that may help improve the lives of people with cancer. Our clinical trials for prostate cancer study investigational medications alone, or in combination with other study medications, or standard of care therapy. We perform trials to see if they can help prevent, find, or treat cancer.

To learn more, visit www.merckoncologyclinicaltrials.com or call 1-888-577-8839.

Demystifying Clinical Trials with Dr. Charles Ryan

A clinical trial is a research study that involves people. The studies are an investigation of an experimental treatment to see if it is safe to use and effective in fighting the disease. Patients may consider enrolling in a clinical trial to gain access to experimental new therapies or techniques that are still in the investigatory stage.

As a doctor and researcher, I often get questions about clinical trials from my patients. Here are several myths that I often hear and want to debunk. I hope they help bring clarity on whether or not a clinical trial might be an option for you. For questions, discuss with your medical team, and be sure to share your findings with your support network and family.
MYTH #1: I can only participate in a clinical trial where I’m currently being treated.
Not true! Clinical trials are available at many locations around the country. Your physician, or a quick search at clinicaltrials.gov, can help you locate facilities near you.

MYTH #2: Clinical trials are dangerous because they use new practices and medicines.
A clinical trial helps make sure the benefits of a potential treatment outweigh the possible risks for most people. However, certain treatments will affect certain people differently. Talk to your physician about possible risks.

MYTH #3: If I join a clinical trial, I might get a placebo instead of an experimental treatment.
Standard treatments are never withheld as part of a clinical trial. Placebos are used only when there is a benefit to adding to standard treatment, if testing whether treatment versus no treatment is appropriate for a given stage of your disease.

MYTH #4: Being in a clinical trial is expensive and isn’t covered by medical insurance.
Federal law requires most health insurance plans to cover routine patient care costs in clinical trials under certain conditions. In many cases, participants don’t pay for experimental treatment or procedures.

MYTH #5: Clinical trials are a last resort for people who have no other treatment options.
Often, clinical trials aren’t a last resort — in fact, a clinical trial may be the first choice for patients without other treatment options.

MYTH #6: Patients will have to stop all other medical treatments while participating in a clinical trial.
It depends on your trial. Ask your medical team about pharmaceutical interactions before beginning the trial.

MYTH #7: My privacy is at risk.
When you are involved in a trial, your data is shared with relevant parties, but it is anonymized. Remember that your involvement will help create positive outcomes for other patients and families.

Dr. Charles Ryan is a researcher and physician who is a member of the ZERO Medical Advisory Board. He serves as the B.J. Kennedy Chair in Clinical Medical Oncology at the University of Minnesota.

Caring for Your Mental Health

Advanced prostate cancer patients and families like yours are currently dealing with immense stress and emotion, due to both prostate cancer and the consequences of the COVID-19 pandemic. Remember, you are not alone. Despite all the uncertainties, checking in on your mental health during this time is extremely important. Here are a few tips for managing stress and mental health during the COVID-19 pandemic:

- Control the constant stream of information
  Think about cutting back on news and social media; absorb news that makes you happy and positive -- for a sure smile, we recommend puppy videos!

- Create and follow a routine
  Following a schedule creates better day-to-day mental health and overall balance.

- Exercise, straighten your posture, and breathe
  Incorporate exercise breaks into your day by going for a walk, or practicing some yoga before bed.

- Write down questions to ask your medical team
  Let your caregivers, family members, and loved ones add their questions too.

- Stay connected
  Find a new virtual activity to do with loved ones. For ideas and inspiration, visit zerocancer.org/go-live.

- Eat smart
  Be mindful of portion sizes while eating to prevent extreme weight gain, and incorporate prostate healthy foods such as pomegranate into your diet.

- Ask for help
  If you are experiencing extreme highs or lows that are not feeling manageable, reach out to your medical team, a social worker, or call a hotline.

For videos, resources, and guidance on mental health, prostate cancer, and COVID-19, visit zerocancer.org/coronavirus.
Q: What is telemedicine?
A: Telemedicine (often called telehealth) helps patients receive care from a distance via electronic and telecommunication technologies. Telemedicine can be done through the comfort of the patient’s home via a “virtual” visit through a smartphone or computer.

Q: What are the benefits to telemedicine?
A: Telemedicine empowers patients to manage their health journey during a time of pandemic. Telemedicine is a perfect solution as an alternative to an in-person visit. While a tele-appointment cannot fulfill all medical needs, such as physical examinations or chemotherapy, it’s a great tool to get an initial consultation from the safety of one’s own home.

Q: If I have a telemedicine appointment with my urologist during the COVID-19 pandemic, what can I expect?
A: During a tele-visit, a doctor is able to make prescriptions, order labs, X-rays, and answer any questions that they would in person. With telemedicine, patients receive a more personalized service without risk of exposure to COVID-19 in the office setting. The patient should still expect quality care and guidance without feeling distance between the home and office as an obstacle.

Q: What types of services for my advanced prostate cancer am I able to get through telemedicine?
A: Telemedicine allows for a detailed history of patients with advanced prostate cancer. Physicians are able to assess concerns for urinary symptoms, possible bleeding, or newly developed bone pain, and can continue guiding certain patients in taking medications properly. Additionally, physicians can order any pertinent blood work or imaging studies through a telemedicine platform without the need for the patient to visit the office.

Q: How has the utilization of telemedicine changed for prostate cancer patients from the beginning of COVID-19 to now, as more cities start to change restrictions across the country?
A: Despite the very real fears that COVID-19 poses for cancer patients, now is the opportunity for patients to continue to communicate with their providers. The utilization of telemedicine can help save lives by preventing the spread of coronavirus, as well as giving cancer patients an option for effective communication practices. Advanced prostate cancer patients still need quality care through this pandemic and telemedicine is helping to bridge access gaps and maintain critical communication between patients and their physicians.

Thanks to our partners at New Jersey Urology for providing this content.

Dr. Eric J. Margolis is a board-certified urologist who has practiced in New Jersey for more than twenty years. He specializes in all aspects of adult urology with an emphasis on urologic oncology, benign prostatic enlargement, stone disease, and urinary incontinence.

For more on telemedicine during COVID-19, visit zerocancer.org/coronavirus.

Patient Spotlight: Thriving, Not Just Surviving, With Advanced Prostate Cancer

Caesar Blevins of Kansas City is a man on a mission: He wants every man to be aware of their risk for prostate cancer. As an advanced prostate cancer patient, this mission is personal for Caesar. Over a decade ago, his life changed with a prostate cancer diagnosis. Since then, he’s been committed to fighting this disease for himself and others like him.

As co-founder of the Prostate Cancer Network, and as a beloved grandfather, Caesar knows all too well that prostate cancer can be a roller coaster both physically and mentally for patients and their families. But the key to success, he says, is focusing on the positive and helping others.

Caesar shares his cancer story to educate and advocate about prostate cancer awareness and screening through events, advocacy efforts, and more.

After all, his motto is “In order to progress, you must first process.” Preach it, Caesar!
Patient Programs

ZERO offers free patient support programs to help patients and families with critical needs during their prostate cancer fight.

ZERO360: Comprehensive Patient Support
1-844-244-1309 (Toll-Free)
zerocancer.org/zero360

ZERO360 is a free, comprehensive patient support service to help navigate insurance and financial obstacles associated with cancer. Patients and families are assisted by experienced case managers.

ZERO MENtor
zerocancer.org/mentor

MENtor is a support network for men living with prostate cancer. ZERO’s trained, volunteer MENtors represent many different prostate cancer journeys and have a wealth of insights to share based on their experiences.

ZERO Connect
facebook.com/groups/zeroconnect

ZERO Connect is a Facebook-based, online only support group where those affected by prostate cancer can share their stories, ask questions, and connect with one another. It is a community of prostate cancer patients, survivors, caregivers, family members, loved ones, and friends who come together to support each other as they face this disease.

ZERO Veterans Program
zerocancer.org/veterans

This initiative addresses the critical needs of Veterans facing prostate cancer by bringing them the tools, resources, and advocacy support necessary to battle this enemy.

For other resources for patients and families, visit zerocancer.org.

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Connect with Your Community at the ZERO Prostate Cancer Summit

ZERO’s Annual Summit is going virtual
February 28 - March 4, 2021

Head online Feb. 28 - Mar. 4 to connect with the prostate cancer community, and learn about the latest treatments, research, and more. Plus, advocates will be able to meet with their congressional representatives virtually! Even though we won’t be physically together, we can still make a difference and an impact in the fight against this awful disease.

Register for free at zerocancer.org/summit