Prostate Cancer

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One in seven Canadian men will be diagnosed with prostate cancer. One in 27 men will die from it. In Canada, it is the third leading cause of cancer death in men. Prostate cancer is found in about 40% of men undergoing an autopsy for death from other causes.

What are the symptoms?

Most men who are diagnosed with prostate cancer do not have symptoms. Their prostate specific antigen (PSA) screening test alerted the doctor to the cancer before any symptoms are present. A PSA measures the amount of PSA in your blood. PSA is a substance produced by the prostate gland (more about PSA later).

When you have prostate cancer symptoms, it is likely that the cancer has advanced to a higher stage. This means that either the tumour is blocking urine from the bladder and/or the tumour has grown outside of the prostate into other nearby organs.

If your tumour is blocking the bladder, you may have a weak urine stream, difficulty starting a stream, difficulty emptying the bladder, urinating more frequently during the day or at night, feeling the need to urinate very urgently and straining to urinate. These symptoms also occur in a common condition called benign prostatic hyperplasia (BPH), in which non-cancerous growth of the prostate causes a blockage to the bladder. Most men with these urinary symptoms have BPH and not prostate cancer. Your doctor will be critical in helping you determine the cause of your urinary symptoms.

If your prostate cancer has affected nearby organs (like the pelvic muscle), you will likely have pelvic pain.

If your prostate cancer has extended into the bladder, pelvic pain may also occur along with fatigue, pain in the flank, loss of appetite and a reduction of urine output. This may happen if the urinary flow from the kidneys to the bladder is blocked by the tumour – the tumour blocks the part of the bladder where the urine enters.

If your cancer has spread to other organs (or metastasized), then your symptoms may include fatigue, appetite loss, weight loss and pain in areas where there are metastases. Metastases tend to occur in the bones and lymph nodes. For example, if prostate cancer has spread to the hip bone, pain can occur in the hip. If it has spread to the pelvic lymph nodes, then you'll likely have pelvic pain. If it spreads to lymph nodes in the area at the very back of the abdomen (called the "retroperitoneum"), then you may have back pain.

How can we prevent prostate cancer?

Unfortunately, we don't know the exact cause of prostate cancer. Because of this, we can't say what can prevent it. There are many genetic changes linked to the development of prostate cancer, but how to prevent these changes is not known.

A popular view is that the cancer develops in people with a diet high in animal fat (a common diet for most people living in North America and Europe). So, we think that a well-balanced diet high in vegetable and fruit content with a normal amount of protein, but limiting the amount of animal fat, is likely the best diet to minimize your risk of developing prostate cancer. The Canadian Food Guide is an excellent diet for healthy living.

Another popular idea is that some dietary supplements, herbal therapies and multivitamins are helpful, but we don't have any studies that show this. Selenium and vitamin E have been studied and they showed no benefit in preventing prostate cancer.

Two medications, to treat BPH, can reduce your risk of developing prostate cancer; these are Proscar and Avodart. However, these medications are unlikely to reduce the risk of prostate cancer that would be important to diagnose and treat. These medications take about six months to decrease the size of the prostate by about 20%. Both are indicated to treat BPH, which is causing significant urine flow blockage, urinary tract infection, stones in the bladder or risk of kidney damage. There is controversy over these medications. In men who develop prostate cancer and who have been on these medications for many years, there is concern that the drugs may cause a higher grade of cancer to develop. This concern has not been definitively demonstrated. The Food and Drug Administration in the United States has stated that Proscar and Avodart should not be used for prostate cancer prevention, but they can be used to treat BPH.

How is prostate cancer diagnosed?

It is diagnosed and staged based on your medical history, physical exam, lab tests and radiologic imaging. Prostate cancer is usually diagnosed before you have symptoms; when symptoms happen, it's likely that your cancer has spread to nearby organs or other parts of your body.

The DRE

An accurate digital rectal exam (DRE) is crucial and may show signs of prostate cancer (a very firm area or a hard nodule) of prostate cancer. In a DRE, your doctor gently puts a lubricated, gloved finger into the rectum. In patients with locally advanced prostate cancer (if your cancer has spread to nearby organs), often a large mass is felt. The DRE also helps to identify BPH or prostatitis, which are two of the more common conditions that can also cause PSA elevations. The DRE also helps in estimating the size of the prostate. A large prostate in itself is not a sign of cancer, but BPH. The physical exam can also help identify if metastatic prostate cancer is present (if your cancer has spread to other parts of your body, for example your bones).

The PSA test

The PSA (or prostate-specific antigen) test is a common blood test to diagnose prostate cancer. PSA and DRE are two initial tests done for screening men who have no symptoms. These tests allow us to find the cancer in its early stages while it is still curable. Many men with prostate cancer will die from another cause and won't need any prostate cancer treatment. So the controversy is that we may be screening patients who don't need treatment for their prostate cancer. You have to discuss the risks and benefits of screening with your primary care doctor or urologist so that you can make an informed decision about your screening.

PSA is an enzyme produced by the prostate and it appears to help with fertility. The most common causes of an elevated PSA are BPH, prostatitis (inflammation of the prostate) and prostate cancer. There is no PSA value under which there is no risk of cancer. The higher the PSA level, the higher your chances are of having prostate cancer. However, many factors other than DRE and PSA are used to detect prostate cancer – see Table 1.

Table 1. How is prostate cancer detected?

Age
Urinary symptoms
DRE results
Prostate size
PSA level
Rate of PSA change and the amount of PSA bound to protein in the blood (PSA free/total ratio)

The biopsy: What to do with your Gleason score

If your results suggest prostate cancer, you may need to have a transrectal ultrasound-guided prostate biopsy (TRUS-Bx) to confirm cancer. The TRUS-Bx is performed by placing an ultrasound probe into the rectum. Local anesthetic is instilled around the prostate and needle biopsies are taken from the prostate under image guidance.

Common side effects of the TRUS-Bx are blood in the bowel movements or when wiping with tissue paper, blood in the urine or blood in the ejaculate. You rarely need treatment for these side effects and they usually resolve after a few days. Blood in the ejaculate may occur over several weeks, but does not require treatment.

The one serious complication that can occur in up to 3% of men having a TRUS-Bx is systemic infection. This occurs when bacteria in the rectum enters your blood at the time of the biopsy; these bacteria are resistant to standard antibiotics. If this happens, you need admission to hospital and intravenous antibiotic treatment with another class of antibiotics.

The biopsy results are critical in showing the grade of the cancer (using the Gleason score) and estimating the amount or volume of the disease. Your prostate tissue is evaluated and assigned a grade based on the pattern of the tumour – this grade is your Gleason score. The higher the score, the more aggressive is the cancer. Usually prostate cancer occurs with multiple tumours, but the largest tumour or the tumour with the highest Gleason score will be the dominant tumour dictating the aggressiveness of the cancer.

About half of patients diagnosed with prostate cancer will have low-risk disease. This means that many will not they need immediate treatment, and many will never need treatment. Most patients with intermediate risk and almost all with high-risk cancer will need therapy. The DRE findings, PSA and Gleason score are used to classify patients into low, intermediate or high risk.

For some patients with intermediate risk and all with high risk cancer, they will need a CT scan (or CAT scan) of the abdomen and pelvis and a bone scan to see if the cancer has spread to other places (called "metastases"). MRI is another scan of the abdomen and pelvis, which is usually not required unless you can't undergo a CT scan. MRI of the bone may be necessary if a bone scan doesn't give a clear answer whether cancer has spread to the bones.

There are newer tests available that may help to determine your risk. The PCA3 tests your urine sample after a DRE exam. The test results may add to the results you already have with the PSA.

What is the best way to treat prostate cancer?

Now that you've been diagnosed with prostate cancer, you are faced with making some decisions about your treatment. The good news is that you may have different treatment options available. The key is to arm yourself with as much knowledge as possible, so that you can arrive at a decision that you will be comfortable with.

What you need to know first: Is your cancer just in the prostate (localized) or has it spread to other parts of your body.

In the next section, we'll go over the different options to treat localized prostate cancer. Deciding which to choose may seem daunting. However, you should understand the factors that play a role in selecting any treatment. These factors can be divided into two groups: patient factors and disease factors.

1. Patient factors include your age and overall health. For example, surgery is offered to younger patients with a life expectancy of at least 10 years. Although, no firm age cut-off exists for surgery, a radical prostatectomy is generally reserved for men in their 40s, 50s and 60s.
2. Disease factors include answers to the questions in Table 2. These will help you decide on the best treatment.

Table 2. Important Questions to ask your doctor about your prostate cancer

What is my PSA value?
What is my Gleason score?
What is my stage, as determined by my rectal exam?
Do you think I have low, intermediate, or high-risk disease?
If left untreated, how long before this cancer will spread, and how long before it may threaten my life?

Once you understand the nature of the cancer you're diagnosed with, you will be presented with different options for treatment.

The options for treating localized prostate cancer include active surveillance, surgery by way of a radical prostatectomy, and radiotherapy with either external beam radiation or brachytherapy.

These treatment options can also work together. For example, radiation may be given after radical prostatectomy if the results of the pathology demonstrate more advanced disease; or alternatively, surgery or radiation may be given after a period of active surveillance if there is evidence of progression of the cancer. Let's go over each of these treatments.

Active surveillance

This is usually reserved for men with low-risk disease. The idea is to delay any invasive localized treatment to avoid complications, until the cancer shows signs of progression. This is different from watchful waiting. Watchful waiting is typically reserved for older men, whose cancer is not likely to be a problem for the remainder of their lives. In contrast to watchful waiting, active surveillance involves a strict follow-up. Patients on an active surveillance have frequent PSA testing and exams by their doctor (every three to six months), as well as periodic biopsies of the prostate to look for any signs of progression.

Radical prostatectomy

Radical prostatectomy is the surgical removal of the prostate; your doctor may also take some of your lymph nodes from the pelvis to examine them. There are different surgical approaches to a radical prostatectomy, but the ultimate result of removing the prostate is the same. The first approach is called the retropubic approach, which is when your doctor makes an incision in the lower aspect of the abdomen below the umbilicus. The second is the perineal approach, which is an incision between the scrotum and the anus. Finally, the minimally invasive approach consists of several smaller incisions in the lower abdomen to allow for placement of ports (or holes) through which the surgeon can carry out the dissection of the prostate. The minimally invasive approach can be carried out with only laparoscopy (when surgeons manipulate the scope and instruments directly) or with the assistance of a surgical robot.

What can happen after surgery?

The surgery takes a few hours, and the hospital stay is typically two to three days. After the surgery, a catheter will be left in the bladder for 7 to 14 days to allow for healing. The prostate is sent to the pathology lab where it is examined under the microscope. The results will give us an indication about how aggressive the cancer is and whether more treatment is needed.

As with any surgery, there are potential complications. Some of these are obvious at the time of surgery, but others come later on. Some of the immediate complications include bleeding which may require a blood transfusion. Rarer complications include injuries to organs around the prostate such as the rectum, the ureters (tubes draining from the kidneys to the bladder) and the obturator nerves (nerves that allow pulling the legs to the middle).

Over the long term, the most significant complications of a radical prostatectomy are urinary incontinence (urinary leakage and trouble keeping dry) and erectile dysfunction (trouble getting an erection).

1. Urinary incontinence

When the catheter is taken out after surgery, most men have some trouble with urine control. If you give yourself time to recover and strengthen the pelvic floor muscles with Kegel exercises, you will likely regain full control of urination. A few patients may need 1-2 pads for protection, especially during exertion. An even smaller number of patients (about 1%) will have significant leakage and will need a second procedure to correct the incontinence.

2. Erectile dysfunction

Two nerves control erections. They both run immediately behind the prostate on the way to the penis. These nerves can be carefully dissected off the prostate during surgery, and that is referred to as a nerve-sparing prostatectomy. The decision to spare these nerves depends on how aggressive the cancer is and your anatomy. However, even in the best case scenario where both nerves are spared, it may take some time before you regain your erections with the help of drugs such as Viagra, Levitra and Cialis or other treatment options including penile injections. Beyond nerve sparing, other factors can play a role in how well you recover your erections. These include your age, overall health and the quality of your erections before the operation.

If the cancer comes back after radical prostatectomy

After your prostatectomy, your PSA test will indicate that your cancer is gone. So, it's important to have your PSA testing done during follow-up to look for any sign of the cancer coming back (or a recurrence). In most cases, PSA levels provide an early warning, raising a flag several months or years before a recurrence is widespread enough to cause problems or be detected by radiology or on a physical exam. If begun at a very early stage, hormone therapy will slow the progression of the disease.

In some cases of localized recurrence, it's even possible to completely cure the disease through radiation therapy alone or in combination with hormone therapy.

Patients with slowly progressing recurring cancer, either localized or distant, may be good candidates for intermittent hormone therapy.

If the recurrence appears to be localized, slow-growing and not particularly worrisome in any other respect, your doctor may recommend that you forego treatment altogether. For example, in a case where PSA levels begin to rise five years after an operation, there will likely be no metastasis for another 10 or 15 years.

Every case is unique, and you must weigh the pros and cons carefully in close consultation with your doctor.

Radiotherapy

Radiation of the prostate can be given in two forms: external beam radiotherapy and brachytherapy.

1. External beam radiotherapy

The aim of radiation is to kill cancer cells with radioactive rays. CAT scans and computers allow more precise targeting of the prostate, while minimizing the exposure of adjacent tissue to radiation. Each treatment takes a few minutes and does not require an anesthetic.

The total dose is typically given five days a week over seven weeks. Hormonal therapy may be given along with radiation for a period of two to three years if you have high-risk disease. The cell-killing effects of radiation continue after the treatments, and therefore it may take as long as a year to evaluate success, even longer if you're also taking hormonal therapy.

Unlike prostatectomy where PSA is expected to become undetectable, the PSA after radiation falls over time. Recurrence of cancer is usually diagnosed when the PSA starts to rise from the lowest level attained after the radiation.

Despite our best efforts and technology, it is difficult to entirely avoid radiation to organs around the prostate, such as the bladder, the rectum and the erection nerves. Side effects include frequency and urgency of urination, blood in the urine, diarrhea, and blood in the stool. Erection difficulties can also occur, although they generally develop over time and not at the time of treatments.

2. Brachytherapy

Brachytherapy or seed implant is when your doctor places radioactive pellets directly in the prostate. It is a day-procedure typically done under a spinal or a general anesthetic. Brachytherapy is offered to patients with low-risk, non-aggressive disease. Patients with large prostates or significant lower urinary tract symptoms are usually not candidates for this option. The seed implantation causes swelling in the prostate, which may lead to difficulty urinating.

What to do if the cancer comes back after radiation therapy

Hormone therapy is often considered the standard treatment for cancer recurrence after radiation therapy. Again, if the recurrence is slow-growing, you may choose to delay treatment.

In rare cases, treatment of the prostate may be suggested and this may include radical prostatectomy or other newer therapies, such as cryotherapy or HIFU, but only if the doctor is convinced that the recurrence is limited to the prostate gland. These approaches cause more pronounced side effects than when used as first-line treatment.

Since the long-term effectiveness of these treatments are still unknown, they are offered in only a few Canadian health centres. Other forms of investigational therapy are being tested, so there may be more choices in the future.

Quick definitions

Cryotherapy

- When your doctor uses an extremely cold liquid or instrument to freeze and destroy abnormal skin cells that need to be removed.
- The procedure involves inserting probes containing liquid nitrogen through the perineum (the area between the testicles and the rectum) into the prostate to freeze the gland and destroy the cancerous cells.

HIFU

- HIFU means high-intensity focused ultrasound surgery. This is a method that focuses ultrasound to heat/vaporize target tissue without injuring the surrounding structures or organs.
- HIFU involves an ultrasound probe that sends intense heat to the prostate in the hope of destroying the prostatic tissue and the cancer within.

ADVANCED PROSTATE CANCER

Advanced prostate cancer includes patients whose cancer has come back after initial therapy or patients who already have cancer that has spread beyond the prostate.

In most cases the best treatment for advanced prostate cancer is still hormone therapy (elimination of androgens [the male sex hormone] or androgen deprivation therapy). When the cancer still grows while you are on hormone therapy, this means that your cancer is at its most advanced stage. Until recently, few options were available but over the last three years new effective therapies have become available that have given hope to patients.

Interesting fact

In the early 1940s, Dr. Charles Brenton Huggins discovered that prostate cancer depended on male hormones to grow. He discovered that destroying these hormones would induce remission of the disease. This breakthrough profoundly changed the treatment of prostate cancer and earned him the Nobel Prize for Medicine in 1966.

Hormone therapy

Since prostate cancer depends on androgens (testosterone) for its growth, the goal of hormone therapy is to prevent the testicles from producing testosterone.

We do this by using one of the following two methods:
(1) physical removal of the testicles (surgical castration) or
(2) regular injections of LH-RH analogs or antagonists (chemical castration).

Suppressing testosterone inhibits cancer growth, causes the symptoms to regress or disappear and can even send metastases into remission, possibly for a number of years.

LH-RH Analogs and LHRH Anatagonist Therapy (Chemical Castration)

This treatment is known as "chemical castration" because it stops the production of testosterone without surgery. In this treatment, you receive regular injections of long-acting LH-RH analogs or antagonists at intervals of one to six months, depending on the dose and type of drug used. The length of treatment is determined by the stage of the disease and ranges from a few months for localized prostate cancers to much longer for advanced cases. You may need continuous or intermittent treatment for the rest of your life.

You may hear the word "antiandrogen" – this is a substance that prevents cells using male sex hormones. Antiandrogens stop some cancer cells from growing. Sometimes, androgens are used to treat prostate cancer. We are still studying the use of antiandrogens.

Side effects of hormone therapy

Surgical and medical castration causes a drop in hormone production that inevitably leads to a loss of sex drive. Other side effects include hot flashes, fatigue, anemia, mood swings, a slight increase in mammary gland mass and loss of bone and muscle mass.

Prescribed medicine can help you with the intensity of the hot flashes and help you prevent bone loss. Yet, there is still no standard treatment for the other side effects. While every individual reacts differently to hormonal changes, most men find the side effects fairly tolerable.

Long-term complications of hormone therapy

Hot flashes and fatigue do tend to ease over time. Bone loss, on the other hand, can lead to osteoporosis. Doctors may prescribe calcium supplements, vitamin D or even bone strengthening drugs to prevent bone or to treat it (if the bone is significantly weakened by age or the effects of hormone therapy).

When LH-RH analog therapy is prescribed for a shorter period, the side effects generally disappear soon after treatment ends. However, the longer the therapy lasts, the more likely that the side effects will last.

Medical follow-up

Every three to six months, you need to meet with your doctor who will perform the occasional DRE and order regular PSA tests to check for any increases in DRE or PSA levels. Any increase may be a sign that the cancer has come back.

METASTATIC PROSTATE CANCER

When prostate cancer spreads, the first organs affected are usually the lymph nodes in the pelvis and the bones. In the case of lymph node metastases, studies published in the late 1990s showed that if hormone therapy is started as soon as nodal metastasis is found instead of waiting for the appearance of bone metastasis, the chance of survival is significantly increased.

In some cases, however, your doctor may prefer to wait and monitor your PSA levels. In about 10-15% of nodal metastases, PSA levels remain stable for a number of years. With regular follow-up every three to six months, intervention is possible as soon as PSA levels begin to rise, months or even years before the cancer has spread anywhere else.

Bone metastasis

If metastases are pronounced, you may complain of pain in the lower back or hips, numbness or paralysis of the lower limbs (metastasis in the vertebrae can put pressure on the spinal cord), fatigue, loss of appetite and paleness (due to anemia). Bones also become very fragile and may fracture.

Hormone therapy is prescribed as soon as your doctor sees the bone metastasis, whether or not you're having pain. The treatment is almost always continuous and for life.

What to do when your cancer grows while you're on hormonal therapy

Once hormone therapy begins, PSA levels should decrease. If your levels continue to increase despite hormonal treatment, then you have hormone refractory cancer, or more recently, castration resistant prostate cancer. There are two types of hormone refractory cancers: those with and those without detectable metastases.

If you are still taking antiandrogens, the cancer cells may have mutated and may be using the antiandrogen drug as a stimulant, like testosterone. The first step is to stop or change the antiandrogen. Between 15–30% of men will experience a temporary drop in PSA levels when they stop taking antiandrogens. Usually, you'll need no more treatment until PSA levels begin to rise again. It is important though that you continue your LH-RH therapy so that your testosterone levels are maintained.

If circumstances permit, your doctor may invite you to take part in a clinical trial designed to help find better ways of treating this stage of the disease.

Hormone refractory cancer without detectable metastasis

In this type of cancer, metastasis is not yet perceptible through diagnostic examinations, although you can likely see it under a microscope and it will eventually show up on X-rays and lead to symptoms.

At this time, no standard treatment exists for this stage of the disease. Research is ongoing to find medications to prevent or delay the appearance of metastasis and prolong life. Recently, a large study confirmed that denosumab, a RANKligand inhibitor approved to treat osteoporosis (weak bones) and to prevent bone complications from bone metastases, was able to significantly delay the appearance of bone metastases in men at high risk.

Hormone refractory cancer with detectable metastasis

Since curing the disease is no longer possible at this stage, we want to preserve your quality of life – this is our top priority. One of the major goals is to delay complications due to metastases while we attempt to prolong life. When the cancer reaches this stage, hormone therapy is no longer enough on its own.

Painkillers and occasionally radiation therapy will be used to relieve pain in areas where metastases have caused symptoms. Radiation therapy destroys metastatic cells in the bone that cause pain (in the spine, hips and back, for example). This does not change the course of the disease, but it can provide quick comfort and strengthen the bone, thereby reducing the risk of fractures.

Fortunately, we now have bone targeted therapy to strengthen bones and to reduce the risk of complications related to bone metastases. Chemotherapy, beyond prolonging life, can also improve your general state after the disease has taken a tight hold. Dietary supplements (such as Ensure) and blood transfusions in cases of anemia are also useful.

What treatments are available *or* on the horizon?

Treating the bones

In 2002, zoledronic acid (Zometa), a strong bisphosphonate, was approved as a treatment to alleviate bone pain and stabilize bones weakened by cancer. A group of drugs known as “bisphosphonates” can slow the progression of bone destruction, thereby reducing the risk of fracture. Bisphosphonates can lessen the need for painkillers and radiation treatment given to relieve pain.

In 2010 a new class of treatment aimed at bones was found to be effective. This new class blocks something called RANK ligand which is responsible for much of the reason bone breaks down in the presence of metastases. Denosumab (XGEVA) is the first agent to be effective in this class of drug. Densoumab has shown to be a more effective than zoledronic acid in reducing bone complications in men with metastatic prostate cancer. Since men with bone metastases will eventually progress using either of these 2 drugs, it’s great news for patients that they may be able to go from one therapy to another if necessary. Of note, denosumab has also been shown to be very effective in reducing bone loss (preventing osteoporosis) due to medical castration and was also effective in reducing the risk of fractures due to this bone weakness.

Chemotherapy

In the early 1990s, it was discovered that chemotherapy (which involves intravenous injections that kill cancer cells) could help ease pain in patients suffering from hormone refractory prostate cancer with detectable metastasis. Surprisingly, chemotherapy such as docetaxel (Taxotere), may actually improve your quality of life and prolong your life.

Usually, this treatment involves having docetaxel injections every three weeks. It takes about 1.5 hours to administer and it's given on an out-patient basis at the clinic – no need to stay overnight at the hospital. The number of chemotherapy cycles (injections) varies according to your tolerance and response. Generally, about 6-10 cycles are administered. We can tell the drug is working by checking PSA levels (they should go down or at least stop increasing as fast as before) and by checking to see if your symptoms have improved.

Docetaxel chemotherapy does cause certain side effects. Common side effects include hair loss, nausea, fatigue and lowered white blood cell count (which increases the risk of infection). Most of the time, these effects fade and disappear after the treatment is complete. Despite the side effects, chemotherapy is generally well-tolerated and may improve symptoms and quality of life.

Treatment options after first-line chemotherapy

Until 2010, there was no effective treatment if you were not successful on docetaxel (Taxotere). After several years of research, three new agents have demonstrated their effectiveness in prolonging life in patients who don't respond to docetaxel or who progress again after having been treated with this chemotherapy.

> It's extremely encouraging that research is giving patients hope where little existed in the recent past.

The first agent to report significant improvements was cabazitaxel (Jevtana). This chemotherapy is given every three weeks very much like docetaxel. It was well-tolerated and prolonged life in patients whose cancer recurred after having received docetaxel.

Around the same time it was also discovered that a new form of hormone therapy was effective for these patients that we thought were refractory to hormones. Abiraterone (Zytiga) is an oral drug that inhibits the production of almost all hormones that can stimulate the cancer cells. In a large study, abiraterone improved survival in patients who received the drug compared to patients who did not receive the drug. More recently, in 2011, enzalutamide (Xtandi), a new drug that stops androgens from stimulating the cancer cell, was also shown to prolong life and quality of life of patients who progressed after docetaxel.

Conclusion

Prostate cancer is very common.

Fortunately, we have many effective treatments for almost every stage of the disease. With the help of your doctor, you can find which stage of the disease you fall into and your treatment options.

There are also many local and national organizations to support you and your family during this time. Some useful websites to visit include those of the Canadian Urological Association (**cua.org**) and the Prostate Cancer Canada Network (**prostatecancer.ca**)