



Innovations: *Prostate Cancer* Radiation, Chemotherapy Playing New Roles in Prostate Cancer Treatment

» *New approaches to radiation therapy, molecular markers, active surveillance and more aggressive use of chemotherapy are all contributing to one of the most progressive times in prostate cancer treatments. For patients with aggressive forms of prostate cancer, research at Froedtert & The Medical College of Wisconsin, across the country and around the world is revealing promising innovations that are changing treatment standards.*

Changes in Radiation Therapy

One compelling example is the addition of radiation therapy for some high-risk patients. According to Colleen Lawton, MD, Medical College of Wisconsin radiation oncologist, hormone treatment alone has historically been considered the best course for patients with aggressive, locally advanced prostate cancer that has not metastasized (spread) to the bone. But two clinical trials have shown a benefit to adding radiation therapy.

“Both of those trials have shown a benefit to adding radiation in terms of cancer control and survival,” Dr. Lawton said. “Therefore, it’s critical that patients who have aggressive prostate cancer that has not spread to the bone be evaluated for radiation treatment in addition to hormone therapy. We now know we can cure many of these patients.”

Dr. Lawton cited two other recent studies that have shown a benefit to giving certain patients radiation therapy within three to six months after surgery. These studies looked at cases where, during surgery, microscopic cancer cells were found outside the prostate, or where surgery didn’t excise all of the cancer — known as having positive margins. For those patients, adding post-operative radiation improved their overall survival.

Additional radiation trials being developed nationally are looking at hypo-fractionation — giving radiation treatments in a shorter time — for example, less than three weeks as opposed to the traditional eight-week course, Dr. Lawton said. She is co-chairing one of these trials.

“Froedtert & The Medical College participated in a trial where we gave patients just 12 treatments. Results were promising enough to be shared with the National Cancer Institute,” Dr. Lawton said. “We are now conducting another trial for patients who have localized prostate cancer to test the effectiveness of an even shorter course. Half of the patients will receive 12 treatments and the other half will receive five.”

“Although the premise of shorter treatments needs further study, our ongoing trials look positive in terms of safety, effectiveness and quality of life for men undergoing radiation treatment,” Dr. Lawton said.

Chemotherapy, Immunotherapy and Hormone Therapy

Research has led to the approval of new drugs for prostate cancer, according to Kathryn Bylow, MD, Medical College of Wisconsin medical oncologist. The first is cabazitaxel, a chemotherapy drug approved for patients who are no longer responding to the first line chemotherapy drug — docetaxel. “Cabazitaxel is specifically formulated to target drug resistance that can develop with docetaxel,” Dr. Bylow said.

The other is an immunotherapy drug called sipuleucel-T, which was found to extend survival for certain patients. This drug is approved for patients who are asymptomatic, but have metastatic prostate cancer that no longer responds to hormone therapy. “In prostate cancer, it’s the first immunotherapy to show any kind of survival advantage,” Dr. Bylow said.

Sipuleucel-T is created using the patient’s own cells, making it a complicated, expensive treatment, according to Dr. Bylow. Still, it’s an exciting development, because it opens the door for other possible immunotherapies, some of which are being tested in trials now.

“Another important drug is abiraterone, a hormone therapy,” Dr. Bylow said. “It decreases levels of testosterone and attacks the hormone pathway in a new way. It has been studied with very promising results in patients whose cancer progressed on hormone therapy and chemotherapy.” Froedtert & The Medical College are participating in clinical trials for abiraterone.

When to use chemotherapy for prostate cancer is also being studied. “Breast cancer is way ahead of us in looking at using chemotherapy early in the treatment process,” Dr. Bylow said. She cited a study available at Froedtert & Medical College which is evaluating the use of chemotherapy in addition to hormonal therapy for patients with cancer that has spread beyond the prostate.

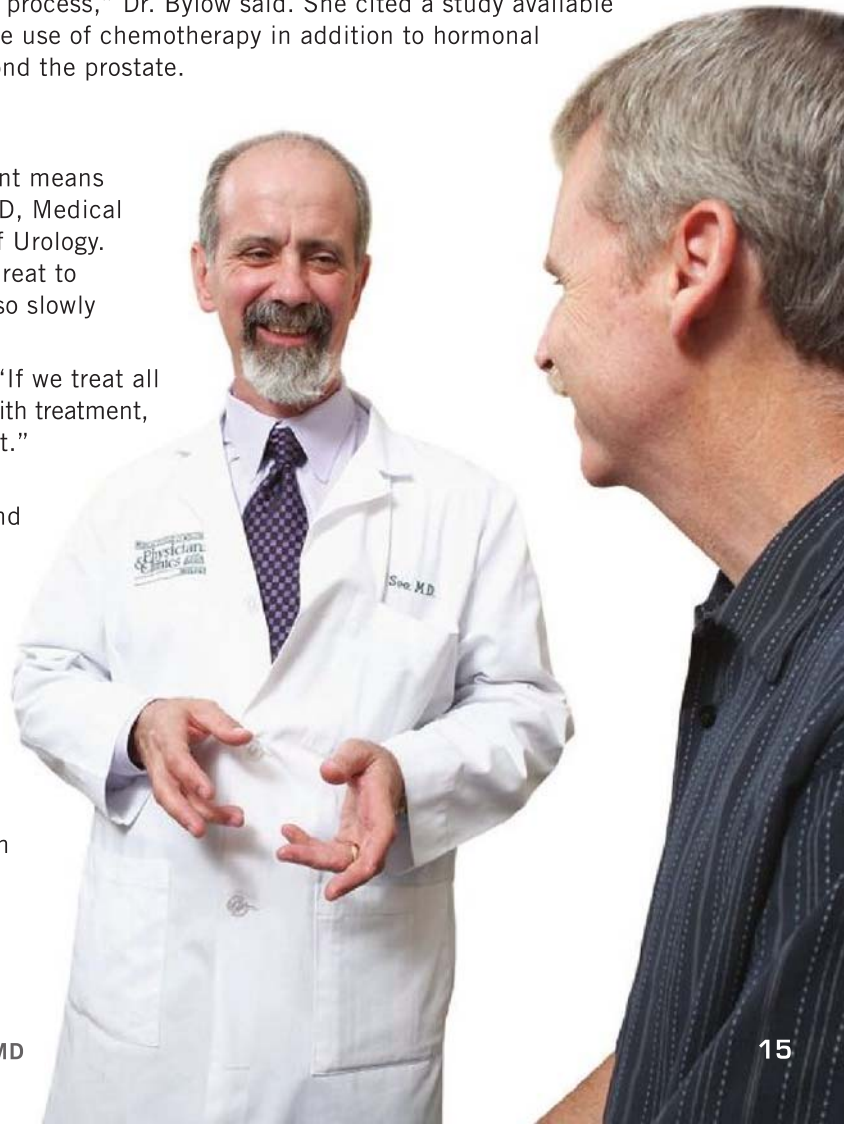
The Big Picture

Looking at the big picture in prostate cancer treatment means tackling risk vs. benefit, according to William See, MD, Medical College of Wisconsin urologic oncologist, and chair of Urology. For some patients, prostate cancer poses a serious threat to survival, while for many others, the cancer will grow so slowly patients will likely die of something else.

“It’s critical to make that distinction,” Dr. See said. “If we treat all of those patients, everyone incurs the risks associated with treatment, whereas relatively few people obtain a survival benefit.”

The cases at either end of the spectrum are easy to distinguish — patients who clearly need treatment and patients who just need to be monitored. “Now, the problem is, there’s a large gray area in the middle,” Dr. See said, referring to cases where it’s more difficult to determine if the benefits of treatment will outweigh the risk of side effects.

“Often, when we see a patient with a newly diagnosed, prostate cancer where the risk/benefit picture is unclear, it’s analogous to having walked into a movie halfway through,” Dr. See said. “We’re not sure what’s happened before, and we’ve only seen a few frames of the film. With that limited view, it’s impossible to predict the rest of the plot. By seeing more of the movie, we get a better sense of the likely outcome. This strategy is called active surveillance.”





Kathryn Bylow, MD

Active surveillance is a management strategy where patients are closely monitored over time with prostate-specific antigen tests, biopsies and other tests. The advantage is that patients with slow growing cancer can avoid the risks and side effects of treatment. The disadvantage is that the prostate cancer may grow or spread and be more difficult to treat. “For these reasons, we consider this strategy carefully on a case-by-case basis, making sure our patients are fully informed,” Dr. See said.

When surgery is appropriate, patients need to be aware they have options, but should carefully choose a physician who does a high volume of prostate cancer procedures. This is an important consideration in obtaining the most curative benefit with the fewest side effects. Today, where appropriate, men may choose minimally invasive, as well as open operations. Surgical options include:

Open Prostatectomy — Open prostatectomy remains the gold standard for prostate cancer surgery. Using this approach, the surgeon combines visual and tactile information for optimal cancer control and potency preservation.

Robotic Prostatectomy — Robotic-assisted laparoscopic radical prostatectomy is a minimally invasive surgery to remove the prostate gland. The procedure is performed using the da Vinci® Surgical System.

Cryosurgery — uses cold energy to destroy cancer cells by freezing them. Historically, cryotherapy has been used to treat the entire prostate gland. Increasingly, data shows that for select patients, focal cryotherapy (freezing just part of the prostate) can result in successful treatment with fewer side effects.

High-intensity Focused Ultrasound — with a small, transrectal ultrasound probe, ultrasound waves focus on tiny areas of the prostate, eventually treating the entire prostate. The energy creates intense heat, causing the tissue to burn, destroying cancer cells.

Another developing strategy is molecular-based risk stratification. This approach uses molecular markers to determine a patient’s risk. “In essence, it looks at the cellular machinery of those cancer cells,” Dr. See said, “to predict how likely the cancer is to grow and spread.”

The Informed Choice

Prostate cancer is often curable when it’s caught early. While that sounds simple enough, finding the best treatment for each individual patient — not just the approach with the most buzz — takes a team of prostate cancer specialists. The team at Froedtert & The Medical College of Wisconsin includes nationally recognized experts in urologic oncology, medical (drug and hormone) oncology, radiation oncology and interventional radiology — with a specific focus on urologic cancers.

Prostate and other urologic cancers are complex diseases that require several different kinds of treatment. And treating the cancer can have a significant impact on a patient’s quality of life. Our Prostate and Urologic Cancer Program offers more standard treatment options than any other medical center in the state, including organ-sparing and function-preserving treatments. And, through our active clinical trials program, patients have access to the newest treatment alternatives.

“First and foremost, we want to cure the cancer,” said William See, MD, Medical College of Wisconsin urologic oncologist and chair of Urology. “But we also want to minimize treatment-associated risks.”

Colleen Lawton, MD, Medical College of Wisconsin radiation oncologist, agreed. “We’re pursuing innovative, cutting-edge science, writing and participating in the studies. Low-risk and high-risk disease require very different approaches. That’s why you need a team of specialists who will be forthright about your options: ‘Yes, this is a very good treatment, but not for you for the following reasons.’ We emphasize giving the right treatment to the right individual for each specific situation.”

“Experience matters when it comes to treating prostate cancer,” Dr. See said. To help patients make better decisions about their care, he developed a list of questions patients should ask their providers, including:

- ✓ Are you fellowship (specialty) trained in prostate cancer care?
- ✓ What percentage of your practice is dedicated to cancer? To my type of cancer?
- ✓ How many of a proposed treatment have you personally performed?
- ✓ What are your results for this treatment in terms of cure? In terms of side effects?

“Once you make a decision and have treatment, there’s no going back,” Dr. See said, “so it’s important to make an informed decision — you have time. I encourage patients to seek a second opinion and be an active participant in the decision process.”

For more questions to ask your health-care provider, visit froedtert.com/prostate. To schedule a second opinion appointment, call 866-680-0505.