### 2012 CONFERENCE:

"EARLY BIRD"
REGISTRATION NOW OPEN!



September 7-9, 2012

Marriott LAX Hotel

Los Angeles, California

Mark your calendars! The annual **Prostate Cancer Conference** is scheduled to be held **September 7-9** in the Marriott Airport Hotel in Los Angeles, California — and for a limited time, PCRI is offering an **early-bird special for conference attendees!** 

Every September (prostate cancer awareness month), the PCRI conference brings hundreds of patients, caregivers and physicians together for a weekend of interactive sessions and lectures from experts in the medical community.

Made possible by generous individual and corporate supporters and dedicated volunteers, the event provides a rare opportunity for patients to connect with peers and hear about cutting-edge research.

Anyone who registers by **May 31, 2012** is eligible for a **special conference rate of \$60**. Please see page 3 for more information.

This special is available for a LIMITED TIME ONLY, so call PCRI at **310.743.2116** to register today!

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# From the PCRI Staff

### Cathy Williams, Chief Operating Officer



s we move into the new year, PCRI is very excited about our commitment to "help  $m{A}$ ing men know their options." While many of you are already familiar with PCRI's programs, we wanted to give you an update on how your donations are being used, to help you understand just how grateful we are for your generous giving.

Annual Conference - Every September (prostate cancer awareness month), PCRI holds its Prostate Cancer Conference — the only conference in the world geared specifically towards patients. This year's conference will be held September 7-9, 2012 at the Marriott LAX Hotel, so mark your calendars and plan your trip! For more information, visit PCRI.org or call us at 310.743.2116 — and don't forget to inquire about our early-bird special for a limited-time rate of \$60 per person through May 31!

Newsletters: Insights & PCRI Weekly - Our quarterly newsletter continues to provide the latest information on prostate cancer from world-renowned physicians. In addition to Insights, PCRI now publishes an online newsletter, PCRI Weekly, every Thursday, which can be found by visiting PCRI.org. Periodically, we will feature human interest stories in PCRI Weekly, so if you have a personal story you would like to share, please e-mail our editor at madhu@pcri.org, or send us your information via regular mail.

Blue Community - A recent study shows that only 14% of website visitors believe advertisements, but 73% believe their peers — thus pointing to the increased role of social media in our lives. In addition to actively maintaining our Facebook and Twitter pages, the PCRI Blue Community has grown at a steady rate since its inception in September 2011, and continues to build momentum. This tool allows patients and advocates to reach out to their peers through an online Facebook-style site, and is a great way to ask questions that you feel a physician may be holding out on, or to see if anyone else is having the same experience as you — be it physical, emotional or spiritual. As an added bonus, our support line staff monitors the forums, so if there is anything that needs clarification, one of them will jump in to answer. If you have not already done so, visit www.PCRI.org and click on the "Blue Community" tab to see what people are talking about!

Mentor Support Line - PCRI receives calls and e-mails daily from all over the world. Our goal is to connect the caller with resources that raise the effectiveness of dialogue between the patient and his physician, while refraining from giving actual medical advice. Our support staff stays vigilant of technology and new developments in treatment options. Please e-mail help@pcri.org or call 1-800-641-PCRI to talk to an educational facilitator.

COMING SOON: PCRI Mentoring Program - This spring, PCRI will unveil a comprehensive training and mentoring course to equip support group leaders across the country with the range of knowledge needed to be effective leaders. The online course will consist of a series of webinars by well-known medical professionals, and will cover a wide range of topics, including (but not limited to) active surveillance, screening and prevention, imaging, men's health, and a detailed overview of the five "shades" of prostate cancer. It will be set up in the format of a regular online class, with required reading, lectures, homework and 2-3 exams. Look out for registration details in the spring of 2012.

PCRI is consistently awarded the "Best in America" certification from the Independent Charities of America. Of approximately 1 million charities in the United States, fewer than 2,000 are awarded this seal. PCRI has an annual external audit, and strives to keep our administration costs under 10% of revenues.

So from all of us here at PCRI, we thank you for your continued support, which helps us better serve those affected by prostate cancer.

Sincerely,

Cathy Williams Chief Operating Officer

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# September 7-9, 2012 • Marriott LAX Hotel Los Angeles, California

### **EARLY-BIRD SPECIAL:**

Register by May 31 to receive \$60 conference admission!

Call PCRI at 310.743.2116 to register today.

### **2012 CONFERENCE AGENDA\***

Look for more information on excursions and prize giveaways in the May 2012 issue of *Insights*!

### FRIDAY, SEPTEMBER 7, 2012

FACULTY	TOPIC
Nathan Roundy, PCRI Educational Facilitator	Prostate Cancer 101
Jan Manarite, PCRI Senior Educational Facilitator	Prostate Cancer 201

### SATURDAY, SEPTEMBER 8, 2012

· · · · · · · · · · · · · · · · · · ·	
David Heber, MD	Lifestyle Changes, Supplements, Prescriptions
Director, UCLA Center for Human Nutrition	and even Surgery to Promote the "Perfect" Body.
John Blasko, MD	What the Heck Do You Do with a Tiny Cancer?
Radiation Oncologist, Seattle Prostate Institute	·
Richard Lam, MD	Treating High-Risk Prostate Cancer
Research Director, Prostate Oncology Specialists	
Charles "Snuffy" Myers, MD	How to Manage Prostate Cancer if it Comes
Medical Oncologist, American Institute for Diseases of the Prostate	Back after Surgery or Radiation
Robert Dreicer, MD	Treating Prostate Cancer that has Metastasized
Chairman, Department of Solid Tumor Oncology, Cleveland Clinic	
Eugene Kwon, MD	The Coming Wave of New Treatment
Professor of Urology, The Mayo Clinic	
John Mulhall, MD	Preventing Treatment-Related Side Effects
Director, Male Sexual and Reproductive Medicine Program,	
Memorial Sloan-Kettering Cancer Center	
Lori Buckley, PsyD	Issues of Intimacy
Therapist, Dr. Lori Buckley & Associates	

### SUNDAY, SEPTEMBER 9, 2012

Mark Moyad, MD Senior Research Associate, University of Michigan Medical School Mark Scholz, MD Medical Director, Prostate Oncology Specialists	Saturday review, Q&A 8 AM to 9 AM
ASK THE EXPERTS	
Michael Steinberg, MD Chair of Radiation Oncology, UCLA	Radiation
Stephen Strum, MD Medical Oncologist	Hormone Blockade
Richard Lam, MD	Chemotherapy
Duke Bahn, MD Medical Director, Prostate Institute of America	Active Surveillance & Focal Therapy
David Heber, MD	Nutrition and Fitness
Charles "Snuffy" Myers, MD	Hormone Therapy
Eugene Kwon, MD	Surgery

<sup>\*</sup>AGENDA & FACULTY SUBJECT TO CHANGE.

SAMETHEMATE

# **INDIGO:**The Fourth Shade

MARK SCHOLZ, M.D.

Men in this category have recurrent or persistent disease after previous local therapy, as defined by a persistent or rising PSA, a positive biopsy after surgery or radiation, a nodule felt on digital rectal examination or documented spread to pelvic lymph nodes.

Cancer recurrence after initial surgery or radiation can be a discouraging development.

With most other cancer types, recurrence means the cancer is incurable, and likely to be fatal. The good news is that prostate cancer is not like other cancers.

Many types of prostate cancer relapses can still be cured – and even those that can't are still treatable, so that a normal life expectancy is usually maintained. Some relapses are so slow growing, that the best approach is simply to watch and wait before taking further action.

Several factors need to be considered before a PSA rise can be attributed to cancer. Sometimes small amounts of PSA are detectable after surgery because the surgeon may have failed to remove the whole prostate gland. This possibility can be evaluated with color Doppler ultrasound and endorectal MRI.

A PSA rise after radiation (also known as a PSA "bump") may also be due to a noncancerous cause.

This phenomenon is more common after seed implants, but can also occur after undergoing intensity-modulated radiation therapy (IMRT).



Mark Scholz, MD
Prostate Oncology Specialists

In this case, the rise in PSA is a sign of inflammation in the prostate, not cancer recurrence.

Deciphering PSA levels after radiation can also be challenging because a "normal" PSA is higher in men with large prostate glands.

The prostate gland is not eradicated by radiation.

Just as a woman's breast is not eradicated when radiation is used to treat breast cancer, the prostate gland also persists after radiation. Therefore, even when the cancer is cured, the residual prostate gland still emits PSA. Long experience with the thousands of men who have undergone radiation has taught us that the PSA level will usually drop to under 1.0 ng/ml in men who are cured.

Recurrence after surgery is a different situation. Since the whole prostate has been removed, even tiny elevations in PSA usually signal a cancer relapse (unless the surgeon left some prostate behind, as noted above). The next step is to decide whether or not to aggressively pursue radiation.

When PSA levels are low, body and bone scans are almost always clear. Radiation directed at the previous site of the surgically removed prostate (called the *fossa*) is the most common type of treatment administered. Radiation is relatively easy to administer, and is often quite effective. Potential side effects of fossa radiation include the worsening of incontinence or impotence.

*(continued on page 5)* 

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A challenging dilemma is deciding whether or not to extend the radiation field to cover the pelvic lymph nodes, which is where the cancer frequently spreads.

Pelvic node radiation has experienced a renaissance, because IMRT is far less toxic than older radiation technologies. As a result, IMRT dramatically reduces the risk of damage to the intestines, compared to older conformal techniques.

Men embarking on fossa radiation should, at the very least, ensure their radiation therapist designs his radiation fields in a way that makes future node radiation feasible. That way, if fossa radiation fails to control

the relapse (i.e., the PSA keeps rising), the option to administer further radiation to the nodes is still kept open.

If a biopsy confirms an isolated relapse in the prostate after radiation, a second attempt to control the cancer with cryotherapy or seed implants can be considered, as long as body and bone scans are clear. (Please refer to the August 2011 issue of *Insights* for more detailed articles reviewing cryotherapy and seed implants.) The most common side effects from these treatments are impotence and incontinence. Success rates can vary, depending on the patient's original "shade," the Gleason score of the recurrent cancer, the extent of disease, PSA levels and PSA doubling time.

### Testosterone Inactivating Pharmaceuticals (TIP)

While many doctors favor further local therapy with radiation or cryotherapy, local therapy invariably is associated with the risk of incontinence or impotence. Also, the odds for success vary. As a result, some patients prefer to stall with testosterone inactivating pharmaceuticals (TIP).

But before we discuss TIP as a standalone treatment for relapse, it should be recognized that TIP is often administered in conjunction with radiation, seed implants or cryotherapy to improve cure rates. In this scenario, the duration of TIP varies from six to 24 months, depending on the perceived seriousness of the relapse.

Relatively few studies have proven that adding TIP to local therapy will enhance cure rates in men with relapsed disease. The policy of adding TIP to local therapy is mostly based on extrapolating from extensive studies showing a benefit in men with newly diagnosed disease.

TIP as a sole therapy is frequently substituted entirely for radiation, cryotherapy or seed implants in men who feel these treatments are either too toxic or unlikely to be successful. TIP is also the ultimate fallback plan that will be used when the PSA continues to rise despite having tried these various local treatments.

Cures with TIP alone are very rare, but the duration of PSA control can be phenomenal. In fact, studies have shown that TIP will keep the PSA in check for an average of about 11 years! (continued on page 6)

TIP can be used either continuously or intermittently. The latter approach is usually more popular, because there are fewer side effects, and studies have demonstrated that the cancer control rates are equivalent to staying on TIP continuously.

TIP can consist of Lupron, Casodex or a combination of the two. When given intermittently, treatment is administered for six to 12 months, assuming the PSA drops to below 0.1, as is almost always the case (a PSA that fails to drop below 0.1 is termed a "high PSA nadir." High PSA nadir indicates androgen independent prostate cancer, which is in the fifth "shade" of blue — Royal).

After TIP is stopped, men are monitored every three months for testosterone recovery and PSA levels. Testosterone usually recovers after 3-6 months. In a minority of men over 70, when testosterone fails to recover, testosterone replacement with Androgel® or Testopel® can be considered. The rate of PSA rise can be substantially slowed by taking Avodart® or Proscar®, leading to breaks, or "holiday periods" off TIP that are about twice as long. Treatment with a second cycle of TIP is usually initiated when the PSA levels rise up into the 3 to 6 range.

### What's Your SHADE?



Join the Prostate Cancer Blue Community Preliminary studies indicate that further slowing down of the rate of PSA rise, leading to longer holiday periods, can also be accomplished with a combination of medications to stimulate the immune system. Three medicines in particular — Leukine (500 mg by injection three times a week), Cytoxan (200 mg by infusion twice a month) and Revlimid (5 mg daily every other week) — appear to be effective, resulting in much longer holiday periods. Side effects are rare, consisting of occasional rashes and heartburn (from Leukine) and occasional low platelet counts (from Revlimid).

TIP also has notable side effects, including loss of libido, weight gain, muscle weakness and hot flashes. Side effects such as osteoporosis and breast enlargement are preventable with medications such as Boniva, Actonel, Prolia, Zometa and Femara. (Please see the November 2010 issue of *Insights* for an in-depth article on TIP. For a detailed review of the side effects of TIP, visit http://prostate-cancer.org/pcricms/node/16 and scroll down to "Systemic Therapies."

### Summary

Ultimately, management of cancer for men in the Indigo shade varies, depending on a variety of factors related to the cancer — the original shade at diagnosis, PSA doubling time and body scan results all play a role.

Additional factors related to the patient's age and sexual functionality are also important to consider. Treatment deliberations are being increasingly influenced by the expectation of further new discoveries.

All these factors influence the deliberation process about how aggressively the recurrence should be treated. Some men may choose to delay aggressive treatment and local therapies such as radiation, cryotherapy and seed implant by using intermittent TIP, with the hope that better options will be discovered in the future. •



## **CALL FOR SUBMISSIONS**

### IF YOU HAVE A STORY TO TELL, WE WANT TO HEAR FROM YOU!

PCRI is looking for human interest stories for our weekly e-newsletter.

In December 2011, PCRI launched a brand-new publication, *PCRI Weekly*, to provide our readers with more frequent updates on prostate cancer news and research. A majority of PCRI articles are written by physicians and healthcare professionals, who provide valuable knowledge about the science and mechanics behind prostate cancer and various treatment options.

This is your opportunity to give readers a different perspective. PCRI will consider articles from any of the following:

- Prostate cancer patients and survivors
- Family members and advocates (wife/partner, children, parents, friends, etc.)
- · Support group leaders
- Awareness event organizers

### **Guidelines:**

- Articles should be roughly 300-800 words. Unlike *Insights*, *PCRI Weekly* aims to publish brief, concise articles. Please also submit a photo or image for your story. If you strongly believe you will require additional space, let us know and we will place it under consideration for a future issue of *Insights*.
- **Use simple language.** This is not a call for medical articles! We care more about your experience. Assume your reader knows little to nothing about prostate cancer..
- **Don't be shy.** Along with a prostate cancer diagnosis comes sensitive issues which can be difficult to talk about. Stay within your own comfort zone, but don't be afraid to write about the personal and the uncomfortable. On the flip side, if you have something more lighthearted or humorous to share, feel free to do so!
- **Have fun!** This is your chance to educate and empower others from an everyday person's perspective be creative and thoughtful! What do you wish you had known earlier? What advice do you have for others who may be having a similar experience?

**How to submit:** Please direct all questions and article submissions (with contact information) to the editor at madhu@pcri.org, or mail your article to 5777 W. Century Blvd. Los Angeles, CA 90045.

PCRI will notify applicants if their story has been approved for publication. We look forward to hearing from you!

What are you doing this Father's Day?



### Prostate cancer awareness should start early.

That's why this year, PCRI is committed to **bringing generations together** for our first-ever **Dash for Dad 5K race** in Manhattan Beach - a fundraiser to help support prostate cancer research and education. Give Dad the gift of awareness this year by joining PCRI and ZERO for this exciting event!

When: Saturday, June 16, 2012 Where: Manhattan Beach, California\*

If you will be in the Los Angeles area this Father's Day, don't miss out on the fun! Whether you are a seasoned athlete or a casual walker, Dash for Dad is a fantastic opportunity to raise awareness for a great cause.

Look for registration information in the May issue of PCRI Insights, or call 310.743.2116 for details. \*Location is subject to change.



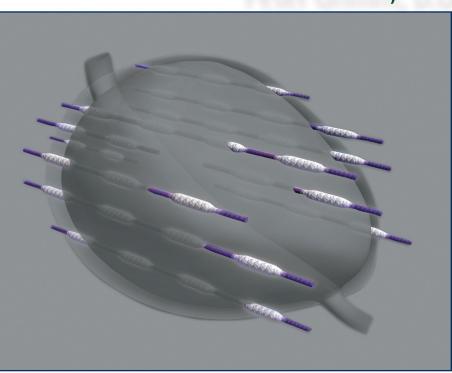




# **Prostate Brachytherapy Q&A**

# Peter Grimm, D.O.

Deciding between different types of seeds, knowing the difference between true PSA recurrence and a "bounce," and what to expect from brachytherapy in the longterm.



How does a patient know/decide between the different types of permanent seeds? What are the risks and benefits of Palladium vs. Iodine vs. Cesium?

Historically, permanent seed implantation started with radium needles. These radioactive needles were 2-3 inches long, and were placed into the tissue and remained there for a specific period of time before being removed.

Subsequent developments in implantation resulted in the use of isotopes placed in small titanium tubes ("seeds"), which remained in the prostate permanently.

The first isotopes used in permanent seeds were Iodine-125 and Palladium-103, and more recently,

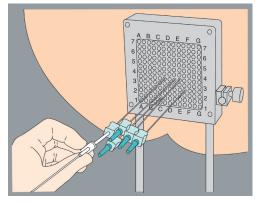
The advantage of using an isotope with short penetration ability is that the other tissues beyond this short penetration are not affected.

Cesium-131. These isotopes were selected because of their favorable radiation properties.

All permanent seed isotopes emit beta radiation, a low-energy radiation that penetrates only a short distance. As these isotopes decay, they emit this beta radiation, and over a short period, return to their basic element (I-125 decays to normal iodine and Pd-103 back to palladium).

The half-life (the period of time it takes for an isotope to be half its strength) is quite short for these isotopes, making them ideal candidates for permanent seed implantation. By placing the seed directly near the cancer, the radiation can effectively destroy the cancer. The advantage of using an isotope with short penetration ability is that the other tissues beyond this short penetration are not affected.

(continued on page 10)



### Cancer Control and Isotope Selection

There is no apparent difference in the likelihood of cancer control using the various isotopes. All isotopes deliver a higher dose to the cancer than IMRT or proton therapy. The higher dose to the cancer is the primary advantage of brachytherapy, and higher doses equal better cancer control. I-125 has a half-life of 60 days. Pd-103 has a half-life of 17 days, and Cs-131's half-life is 9.7 days.

The doses prescribed for each of these is slightly different because of their half-lives. A typical implant of I-125 alone will receive a dose prescription to the periphery of the gland of 145 Gy, Pd-125 Gy and Cs 100-115 Gy. While these doses appear to be very different, their biological effects are quite similar. It should be noted that 120 Gy of IMRT radiation would be needed to reach the equivalent dose of a permanent seed implant.

### Isotope and Side Effect Profiles

While the cancer control rate among isotopes is similar, the short-term side effect profiles of the isotopes are modestly different. Cs-131 patients, because the energy is given up over a very short time, have a tendency to experience slightly more intense effects of frequency of irritation in the first several months, when compared to Pd-103 and I-125. The long-term effects appear to be similar; therefore, the primary selection may be physician preference.

### **Technical Differences**

Palladium and Iodine are supplied as connected seeds, whereas Cesium is not available as a connected product. Studies have demonstrated that connected seeds almost completely eliminate seed migration and improve dosimetry. Iodine is also available in a thinner connected seed model, which has been demonstrated to decrease the immediate discomfort and bleeding that some patients experience.

### Cancer Grade and Isotope Selection

A common belief exists that for high-grade cancers, isotopes that give off energy quicker (such as Pd-103) may be better. However, studies have not yet proven this, and in one study, both iodine and palladium had similar cancer control rates for all grades. At our center, we typically prescribe I-125 for Gleason 4-7 and Pd-103 for Gleason scores 7-10, with personal choice for Gleason 7.

# How can a patient know/decide between permanent seeds (above), and temporary seeds (HDR)? What are the risks and benefits?

Both treatments are designed to give a higher dose to the prostate than IMRT or other external beam approaches, and both work well. Each has its own advantages and disadvantages. An advantage to permanent seed implant is that it is usually a single outpatient procedure, requiring only about an hour of operating room time.

A temporary implant is done in an operating room in a similar fashion, but the patient remains in the hospital for several days with plastic needles in the perineum and prostate. During the hospitalization, (continued on page 11)

### PROSTATE BRACHYTHERAPY (continued from page 10)

a radioactive seed on a wire is directed through the needle and into the prostate. A computer-based system decides where and how long the seed stays in each position in the prostate, and the treatment is usually done several times over a two-day period.

Temporary seed treatments are usually accompanied by a five-week course of IMRT as well, so it can take a few months to complete the entire process. Some centers perform two HDR treatments, but this of course requires two hospitalizations.

The decision to have either permanent or temporary seeds should first begin with treatment success. Both are quite successful, but the data for HDR is more limited, and the number of experienced practitioners is limited as well.

After seeding - when a patient has a rise in his PSA, how can he know if it is PSA recurrence (cancer-related) - or PSA bounce/bump (not cancer-related)? How can you distinguish one from the other?

PSA levels can actually increase immediately after a permanent seed implant. The earliest we recommend checking PSA levels is six weeks after the procedure, then every three months for the first two years, every six months for up to five years, and then annually.

It may take years for the PSA to reach its lowest level. If the PSA has not progressed on three successive readings, the patient is considered disease-free. A small fluctuation or increase in PSA level is not necessarily indicative of a problem with prostate cancer, but rather, may only reflect normal laboratory fluctuations.

The PSA trend is more important than the absolute PSA value. We have a small number of patients with PSA levels above 1 ng/ml who have been stable for years. After the first year, PSA levels slowly decline over several years, and then stabilize. It is not uncommon, when the PSA is below 1 ng/ml, for slight fluctuations to occur. These small variations do not necessarily mean the cancer is present.

### What PSA level should be expected over the long term?

A lower PSA is always better. However, our long-term studies have demonstrated that if the lowest PSA is less than 1ng/ml, that patient has over a 90% likelihood of being disease-free in ten years.

More important than the absolute number is the pattern of PSA. Because every man is different, there is no set standard for absolute PSA. The important thing is that it is stable and non-rising. (*continued on page 12*)



**Dr. Peter Grimm** is director of the Prostate Cancer Center of Seattle.

In the late 1980s he pioneered, with his partners, a low-dose brachytherapy technique known as seed implantation for prostate cancer.

Grimm and his colleagues have treated over 10,000 patients and trained over 6,000 physicians from around the world in prostate brachytherapy.

He developed six U.S. patented devices that have led to continuous improvements in the equipment widely used in prostate implantation.

In 2010, he received the highest award in the Brachytherapy profession, the President award from the American Brachytherapy Society, for his outstanding achievements and contributions.

### PROSTATE BRACHYTHERAPY (continued from page 11)

### What is a PSA bounce?

About one-third of permanent seed patients experience a PSA "bounce" (also referred to as a spike, blip or bump), which means the PSA temporarily goes up and then declines. It happens, on average, between 18-24 months after the implant in approximately 30% of patients after seed implantation.

The magnitude of this PSA rise can range from just a few tenths of a point to as many as 10 points! No one knows exactly why these bounces occur. Some speculate that it may be due to a mild infection, prostatitis (inflammation) or cells which are dying and releasing PSA. The information we have thus far indicates that if the PSA bounces, it does not seem to predict whether a patient will fail. In a study we conducted, patients experiencing a PSA bounce actually did slightly better than their counterparts who did not experience a bounce.

It is important to note that the PSA test can change between the laboratories performing them - therefore, it is valuable to have the test consistent-

ly performed by the same laboratory. In addition, sexual activity should be avoided for two days prior to the test.



### If the PSA bounce occurs, what should I do?

The bounce is generally a short-term phenomenon. If a PSA reading is up, the normal course of action is to repeat it, either monthly or after three months.

Younger patients have a tendency to have higher bounces. This could be due to the fact that younger men have more normal, healthy prostate cells to begin with, and when that larger number of cells dies, they produce a bigger, temporary PSA bounce.

In other words, a man in his 40s who experiences a PSA bounce will likely have a bounce that's much greater than a bounce a man in his 70s would have. The advice for both groups of men is not to worry. Get re-tested monthly over a three-month period, and the PSA should be back down.

### What if my PSA rises? Is it a bounce or not?

If the PSA rises, the first assumption should be that it is a benign bounce or laboratory error. A bounce can be seen for 4-6 months or longer, so patience is important. Since benign conditions such as bacterial prostatitis can also cause the bounce, treatment is usually instituted with the assumption that an infection is causing the problem.

A consistent rise over time, however, can mean the treatment has not worked, and that cancer cells are growing somewhere. If your doctor determines a true rise, the challenge is to find out where the cancer has recurred. There are three different possibilities: (1) disease is outside the prostate, (2) disease is inside the prostate, or (3) cancer is growing both inside and outside of the prostate.

True recurrence in the prostate after permanent seed implantation is rare, and is less than 1% for low- risk disease. A slow rise in PSA can suggest a local recurrence. A rapid rise in PSA usually means the disease is outside the gland. A biopsy is necessary to determine if it is a true local recurrence. The pathology must be read by an experienced radiation pathologist. (continued on page 13)

Once a newly diagnosed patient knows his risk stratification (D'Amico, NCCN, CAPRA, Shades, etc.), how can he use this information in his treatment choice, specifically regarding seed implants?

Low-Risk men are the most likely to not have PSA recurrence after treatment. In this group, seed implantation appears to be the most successful, compared to surgery or IMRT.

### Which Intermediate-Risk men should consider seed implants?

All should consider it, as it is the most successful treatment, compared to surgery or IMRT. Surgery will fail more often, because it doesn't treat microscopic disease beyond the prostate. IMRT fails because the dose to the gland is insufficient in many patients. Seeds treat both, and give approximately two times the dose to the gland compared to IMRT. If you want to get ultimate control, you have to treat the disease inside the gland AND the microscopic disease beyond the gland. Brachytherapy does both. Many intermediate patients can be stratified to a Low-Intermediate risk group, and can have an implant alone. These are patients with only a small number of positive biopsies.

### Would High-Risk men benefit from seed implants? Which ones?

These men would not benefit from implant alone. They need combined treatment with hormone therapy, EBRT and seeds.

### Does risk level change the seed implant procedure?

It does not substantially change it in low or intermediate-risk patients. As the grade increases (7-10), the distance the cancer will extend beyond the gland is wider, so we increase the field size in those patients.

Recent literature seems to show men at highest risk have the best PSA control with seed implant (high dose in prostate), combined with IG/IMRT to mop up any cancer around the prostate and in the seminal vesicles (and possibly pelvic lymph nodes). Is this consistent with your views?

I completely agree. Seeds, IMRT or surgery do very poorly alone, compared to a combined approach with seeds, IMRT and hormone therapy.

For a man with Intermediate-Risk who might be a candidate for adding IMRT, would it make sense to do seed implants first and then monitor the PSA, hoping the cancer was local and controlled, and then do IMRT if a recurrence is found?

For most intermediate cases (categorized as Low-Intermediate), the control rate with a standard seed implant alone is 90-95%. EBRT and seeds for High-Intermediate Risk has a 80-90% control rate. It is important to distinguish between these two groups. I do treat some patients in this high intermediate group with implants alone, even though I think they may need combined treatment. However, I use a slightly different plan, using more seeds and a wider implant volume. Obviously, it is possible to do an implant in all of these patients, and then watch to see if they fail treatment, hoping it will work and relying on a mop up. The problem is that the mop up IMRT dose to actually get high control is going to be very similar to a full course of RT. So as you can see, some may escape more aggressive therapy, but those who fail really pay a large price. If you increase the failure rate, you would also increase the complication rate overall. Since the morbidity of a primary implant or combined implant and IMRT are so low (<1% incontinent, 0% death, 0% infection), why take the chance? •

# OLIGOMETASTATIC Prostate Cancer

Charles "Snuffy" Myers, MD, American Institute of the Prostate • Michael Dattoli, MD, Dattoli Cancer Center & Brachytherapy Research Institute • Stephen M. Bravo, MD, Sand Lake Imaging



Most surgeons, radiation oncologists and particularly medical oncologists regard prostate cancer as either confined to the prostate gland and curable, or widely metastatic and incurable.

However, we now know that there is an intermediate stage where the cancer has spread outside the prostate gland but is not widespread. This intermediate stage is called *oligometastatic* (the oligoprefix comes from the Greek word for "few").

The concept of oligometa-

static disease we have today derives from a paper written in 1995 by Samuel Hellman and Ralph Weichselbaum that established this concept (Hellman, S & Weichselbaum, RR J. Clin. Oncol 12:8, 1995). It is not written with a focus on prostate cancer, but rather on the broad spectrum of human cancers. We regard this as one of the classic papers in cancer treatment, and feel it should be required reading in every training program in surgical, radiation or medical oncology. Fortunately, the authors revisited their original concepts in 2011 when they reviewed the evolution of this way of thinking about cancer. The paper is relatively short, easy to read and available for free at http://www.nature.com/nrclinonc/journal/v8/n6/pdf/nrclinonc.2011.44.pdf.

The most important message of these two papers is that some patients with oligometastatic cancer have their survival markedly prolonged when the metastatic lesions are surgically removed or treated with radiation. A portion of patients with liver metastases removed by surgery have survived long enough that they are very likely cured. Similarly, among patients with lung metastases removed by surgery, between 20-30% were still alive at 15 years. It is important to note that neither paper looked at oligometastatic disease in prostate cancer patients.

Four years after the publication of this paper, Dr. Snuffy Myers was diagnosed with prostate cancer that had escaped the prostate gland and spread to several lymph nodes. At that time, the concept of oligometastatic disease had not been applied to prostate cancer, and this presentation was nearly always fatal in less than 10 years. (continued on page 15)

Faced with this grim future, Dr. Michael Dattoli offered to treat Myers with radiation to the prostate gland and lymph nodes in the pelvis. Surgery was used to eliminate the lymph nodes in the lower abdomen that might be involved. All of this was done after hormonal therapy had been used to reduce the total volume of cancer. The publication of this essay coincides with the 13th anniversary of the diagnosis, and Myers remains free of cancer.

This experience sensitized the authors of this essay to the possibility of oligometastatic disease in prostate cancer. During those early years, it was difficult to use this concept because it was difficult to image (therefore difficult to find) metastatic lesions.

This cancer commonly spreads to bone and lymph nodes in the pelvis and lower abdomen. Bone scans are widely recognized to be

plagued by false positives, and require sizeable cancer deposits before they turn positive.

CT and conventional MRI are also notoriously insensitive, and require close to 1 centimeter of cancer for detection. At that time, the ProstaScint scan was available. While this was a marked improvement, ProstaScint scan's utility was limited by a 20% false positive and 20% false negative rate.

The next major advance came from the University of Rochester in New York, and it documented in detail the existence of oligometastatic disease in prostate cancer metastatic to bone (Singh, D, et al O Int J Rad Onc Biol Phys 58: 3, 2004).

The first observation was that men with five or fewer bone lesions had nearly the same 5-year survival as those with PSA-only recurrences.

They then went on to look at the natural history of bone metastases in those with five or fewer bone lesions (versus more than 5). An appreciable proportion of those with five or fewer lesions remained stable for up to several years before the cancer started to spread widely. Those with more than five bone lesions were much more likely to spread widely.

The authors proposed that stereotactic radiation to bone metastases in those with five or fewer may eliminate the bone metastatic cancer and make the patients disease-free for a prolonged period of time. This paper was followed by several papers involving a limited number of patients that show radiation can indeed control individual bone lesions. However, because of small patient numbers and limited follow-up, these papers offer no convincing evidence of improved survival.

If survival is going to **be significantly changed,** it is a strategic mistake to focus it is a strategic mistake to focus solely on bone lesions...Many men have lymph node metastases that are lymph node metastases less nodal disease is identified that are invisible to CT and MRI.

Our view is that if survival is going to be significantly changed, solely on bone lesions. From a wide variety of sources, we know that many men have and eliminated, the cancer can continue to progress despite elimination of bone lesions by radiation.

Thus, translating the concepts of oligometastatic disease into a survival benefit for prostate cancer patients requires further improvement in our ability to locate the cancer. Further, the advances in imaging must be tightly linked with improved radiation therapy techniques. Fortunately, there have been advances in both bone and lymph node radiation therapy.

(continued on page 16)

### OLIGOMETASTATIC DISEASE (continued from page 15)

The specific pattern of lymph node spread has been defined using multiple varied methods, with consistent results across these different studies. The most common sites involved are in a broad area surrounding the obdurator, common, external and internal iliac arteries where more than half of all nodal disease will be found. These nodes are within the pelvis, and easily targeted with modern radiation therapy.

Other nodal clusters in the pelvis are involved much less commonly. From the iliac/obdurator nodes, the cancer can then spread to the back of the abdomen to the retroperitoneal nodes. While this cancer can spread above the diaphragm, this is quite uncommon.

### **NEW IMAGING TECHNIQUES**

**Sodium F18 Bone Scan** - The traditional bone scan uses Technetium (99mTc) medronic acid. The sodium F18 PET bone scan appears to be significantly more sensitive than the traditional bone scan.

This enhanced sensitivity comes with an increased risk of false positives. The risk of false positives can be reduced if the CT shows areas of increased bone formation and the MRI shows tumor occupying the marrow cavity. However, there are cases where a positive F18 bone scan needs to be confirmed by a bone biopsy. If you want to delve further into this promising technique, the Society for Nuclear Medicine has issued a Practice Guideline that is available at http://interactive.snm.org/docs/Practice%20Guideline%20NaF%20PET%20 V1.1.pdf

**Magnetic Resonance Imaging** - MRI has become a powerful tool in medicine. Compared to CT scan, MRI generally does a much better job at visualizing soft tissue details. For example, MRI excels in visualizing such things as muscle damage or a cancer mass pressing on the spinal cord.

Unfortunately, MRI has not done very well at visualizing cancer invading lymph nodes because most cancers have the same MRI characteristics as the lymph nodes. Thus, MRI only picks up cancer invasion of lymph nodes when the node becomes too large. In practice, this means the node is greater than 1 cm (0.4 inches). Gadolinium, a contrast agent commonly used in MRI, is also taken up equally by normal and cancerous lymph nodes.

The goal of MRI with Feraheme or Combidex is to identify those lymph nodes that are considered normal by conventional MRI size criteria, but demonstrate abnormal signal after the administration of either the Combidex or Feraheme reagent.

**Combidex Scan** - The story of the development and subsequent death of Combidex as an imaging agent is one of the major tragedies in prostate cancer oncology.

Combidex is a very small iron particle (nanoparticle). When administered intravenously, it is taken up by lymph nodes throughout the body. Prostate cancer in a lymph node does not take up this iron. With MRI, the contrast between the iron-free cancer and surrounding lymph node is quite significant. As a result, lymph node metastases down to 2 mm can be visualized.

Harisinghani et al (J Magn Reson Imaging 7:161, 1997) first reported successful imaging of prostate cancer via Combidex in 1997. This elicited considerable interest and more than 400 papers were published on Combidex, including its ability to detect lymph node metastatic disease from a variety of other cancers. Jelle Barentsz at the Radboud University Nijmegen Medical Center in the Netherlands specifically focused on perfecting the use of Combidex in prostate cancer patients. *(continued on page 17)* 



### FIGURE 1

The published record clearly indicates that Combidex represented a major improvement in the detection of lymph nodes in prostate cancer and other cancers. So, why did this agent disappear?

When the Combidex results were presented to the Oncology Drugs Advisory Committee (ODAC) at the FDA, members of the committee voted not to approve it. Members of the Committee involved in imaging voted for approval. The medical oncologists voted against approval. We think this split nicely illustrates a cultural divide between those involved in imaging research and those involved in cancer treatment.

As a medical oncologist, Snuffy Myers would also have viewed the material presented before ODAC as too limited for FDA approval. Ideally, you need a fairly large number of patients imaged, and the presence of cancer in the lymph nodes confirmed by biopsy to determine the false positive rate. You should then present information that this resulted in improved treatment. It would be even better if you show improved survival.

Together, the coauthors referred more than 50 patients to Dr. Barentsz for evaluation. More than half proved to have lymph node oligometastatic disease and were treated with radiation. Within the next two years, the follow up on these patients will be sufficient to look at survival. Unfortunately it is too late for those results to save the Combidex.



FIGURE 2

**Feraheme MRI** - Feraheme is also known as Ferumoxytol and it is a nanoparticle Fe3O4 preparation. It is already FDA-approved as a treatment for iron-deficiency in patients with renal disease. Thus, it is readily available and its safety is well-documented.

As with Combidex, Feraheme is taken up by normal lymph node tissue, but not by prostate cancer invading those lymph nodes.

However, there are several differences. Most importantly, Feraheme is available and the Combidex reagent is not. At least initially, the Combidex reagent showed better resolution. However, as the use of Feraheme has undergone optimization, the two appear to be equivalent.

Figure 1 shows an MRI done using Gadolinium as a contrast agent. Two lymph nodes are visible as white masses, the left larger than the right.

In Figure 2, the same patient is imaged following Feraheme injection. Using the T2\* MRI imaging technique, normal nodes appear black, while the cancer shows up as white. In image 2, the right lymph node is black, indicating a normal node. The left node is white, indicating the presence of cancer. This was verified by biopsy: the right node was normal and the left contained cancer.

(continued on page 18)

Carbon-11-Choline PET Scan- Prostate cancer cells take up choline. This has been widely used in MRI spectroscopy as the cancer has a higher choline content than the surrounding normal tissue.

In a landmark study, Hara et al compared carbon-11-choline with fluorine-18-deoxyglucose PET in patients with prostate cancer (J Nucl Med 39: 990, 1998). The utility of the fluorine-18-deoxyglucose PET scan was compromised by intense radioactivity in the urine that overwhelmed cancer uptake. In contrast, the prostate cancer showed marked uptake of the choline label and very little of the isotope was found in the urinary tract.

There are now more than 70 papers on carbon-11-choline PET scan scanning for prostate cancer. Several papers have provided pathologic documentation that the abnormalities detected represent prostate cancer. R. Jeffrey Karnes from the Mayo Clinic has imaged several hundred prostate cancer cases and has shown this approach will detect cancer not seen on routine MRI or CT scan.

How does the carbon-11-choline PET scan compare with the Feraheme-MRI? There are no direct comparisons, so a definitive comparison is difficult. The two imaging approaches have different inherent strengths.

In favor of Choline PET, the image is based on a real biochemical characteristic of prostate cancer. In favor of the Feraheme MRI is that MRI using a 3 Tesla machine has inherently much better resolution

than current PET technology. MRI can be problematic if the patient has a pacemaker, unless one of the newer MRI-safe pacemakers is used. PET poses no risk for patients with a pacemaker.

# What is the best way to treat oligometastatic prostate cancer?

It is our view that surgery has limited utility in the management of oligometastatic prostate cancer.

First, it would not prove a useful approach to bone metastatic lesions. While surgery has a long history in diagnosing lymph node involvement in men with prostate cancer, evidence that this surgery offers improved cancer control is not impressive. At the same time, radiation therapy techniques are improving rapidly and we will focus on this as a treatment option.

External beam radiation has undergone a virtual revolution, primarily as a result of it being a computer-driven modality. Newer software and hardware have enabled the formulation of extremely complex treatment plans with the ultimate goal being to improve the therapeutic ratio (that is, maximal sparing of normal tissues while eradicating cancer).

Early Cobalt-60 therapy in the 1950s based on isotope decay gave way to mega-voltage radiation in the early 60s using linear accelerators allowing for higher energy photons and higher doses of radiation. Three Dimensional Conformal Radiation (3D-CRT) was popularized in the 1990s followed by Intensity Modulated Radiation (IMRT) beginning in 2000. With

IMRT, the beam intensity is varied across the treatment field rather than being treated with a single large uniform beam.

Hundreds and even thousands of microbeams the size of a cubic millimeter (called Voxels) are utilized for dose delivery. Moreover, each microbeam can have a different dose intensity. IMRT treatment planning allows for dose delivery to match the shape of the target while maximally sparing adjacent normal tissues.

Zelefsky et al. reported on the superiority of IMRT over 3D-CRT with respect to patient morbidity (Int J Rad Onc Biol Phys: 70(40) 1124-9). Numerous other investigators have since demonstrated the superiority of the higher dose levels that can be achieved with IMRT compared to 3D-CRT.

Even more advanced versions of IMRT are now commercially available. Image Guided IMRT (IG-IMRT or IGRT) and especially Dynamic Adaptive Radiotherapy (DART) allow for the use of real-time 4D imaging to better track the target. DART accomplishes this most effectively, allows the microbeams to reach the target(s) and is capable of doing so even when the targets are in motion. Using the most advanced technologies, DART allows multiple built in 4D tracking systems. Aided by sophisticated 4D technologies, DART enables dose delivery between treatments ("inter-fraction"), but also during the actual treatment ("intra-fraction").

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Therefore, real-time 4D imaging not only matches the target for microbeam delivery, but also allows for dose delivery to thousands of different targets in motion. It is only with this sophisticated technology that precise high-dose radiation delivery can be utilized to treat Feraheme-detected lymph nodes (USPIO) with dramatically reduced morbidity. This precision is further magnified by using fusion technologies, with Feraheme studies fused with DART treatment planning systems.

Other commercially available and popular external beam radiation modalities including, but not limited to, Protons, Cyberknife and Stereotactic Body Radiation (SBRT) are available for precise dose delivery. None of these, however, can be utilized for nodal irradiation since most of the aforementioned tracking 4D technologies cannot be used with these modalities. •

### MEET THE STAFF

### LAURIE SORROW, Programs Coordinator



**Laurie Sorrow** joined PCRI as Programs Coordinator in June 2011, and is a certified notary for the state of California.

Prior to joining PCRI, Ms. Sorrow worked as a retail and events manager in her home state of South Carolina. She brings enthusiasm and energy to all of PCRI's programs. Ms. Sorrow resides in Long Beach, California.

Ms. Sorrow can be reached in the Los Angeles office at laurie@pcri.org.

SILVIA COOPER, Educational Facilitator

**Silvia Cooper** is the daughter of a prostate cancer patient. She has been navigating the prostate cancer "terrain" and advocating for her father since his initial diagnosis in 2000.

Ms. Cooper joined PCRI in November 2011, and is the newest member of the PCRI team. She works part-time in the Los Angeles office, responding to Helpline calls and e-mails.

Ms. Cooper can be reached at scooper@pcri.org.





Only a short while ago, a major U.S. task force recommended against PSA screening. They concluded that a vast majority of patients diagnosed with prostate cancer as a result of screening are harmed, not helped, by the treatment that follows.

What are the statistics? More than 90% of newly diagnosed patients are subjected to radical prostatectomy. The implication of the Task Force is that surgery does not benefit patients. Indeed, they cite clinical trials that they conclude prove their point, but I have voiced objections to their conclusions (in fact, I even made a very angry video on this, which can be found on my blog, askdrmyers.wordpress.com – it's the October 19 video).

So, what's wrong with the Task Force's analysis?

First off, their analysis was stunningly incompetent: of the more than 50 randomized controlled trials available on treatment outcomes, they chose to use only two!

Furthermore, the two they used have well-known defects. Had they not been so intellectually lazy, the Task Force would have found clear proof that men with potentially lethal prostate cancer can be cured by surgery or radiation therapy. As a result, their analysis will condemn men to needlessly die of prostate cancer.

However, not all aspects of the Task Force analysis are wrong. A large majority of cancers detected by screening are either low or very low-risk cancers for which neither surgery nor radiation have any established benefit. Shockingly, more than 90% of newly diagnosed men (continued on page 19)

with low-risk prostate cancer undergo aggressive treatment, largely radical prostatectomy. Dr. Mark Scholz elegantly discusses this in his book, Invasion of the Prostate Snatchers, which I believe every newly diagnosed patient should read before agreeing to a radical prostatectomy.

If you do not have a radical prostatectomy for low-risk disease, what are the other options? The answer is that you can choose either active surveillance or watchful waiting. There is an emerging consensus among clinicians involved with prostate cancer treatment that these options are effective and need to be more widely used.

In response to this, NIH held a consensus conference on active surveillance in early December. I attended this meeting, and was very impressed. I believe this meeting was the ideal response to the sloppy job done by the U.S. Task Force. Presentations from the meeting are available at www. videocast.nih.gov.

### **Presentations**

Perhaps the most important presentation was given by Timothy Wilt, who discussed the results of the PIVOT trial. In this trial, men were randomized to watchful waiting versus radical prostatectomy. The trial was dominated by men with low-risk disease (those with PSA values less than 10 ng/ml, most of whom had Gleason 6 disease).

The results were quite dramatic. Twelve years out, there were more deaths in the surgery arm. Thus, not only was there no survival benefit to surgery, but surgery was associated with worse survival! In addition, surgery was also associated with a significant worsening in quality of life issues, such as sexual and urinary function.

The second presentation was given by Laurence Klotz, from Sunnybrooke Health Sciences Center in Toronto, Canada. Dr. Klotz could well be regarded as the father of modern active surveillance.

read for repeat biopsies...

if an MRI does not find a problem, there probably isn't one.

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The latter half of Dr. Klot presentation focused on a to improve active surveill techniques. In the past, mapproaches depended on

In his presentation, Dr. Klotz reviewed the evolution of active surveillance at Sunnybrooke. As he points out, there is a broad consensus that patients with a PSA less than 10 ng/ml and a small-volume Gleason 6 have a low-risk form of prostate cancer. Over time, approximately one third will develop progressing disease.

If these patients follow up with PSA, biopsy, or imaging techniques, progressing disease can be identified and surgery can be

done before the cancer is no longer organ-confined. This process of careful follow-up and aggressive intervention when needed is known as active surveillance.

In discussions of active surveillance, people often miss the point that this method is applied with a curative intent: the goal is to offer curative treatment ONLY to those who need it. Studies indicate that this seems to work well. Dr. Klotz cited eight studies with a total of 2,130 patients with a 99.7% cancer-specific survival. I like the fact that about 2/3 of the patients escape the harm of surgery or radiation therapy, while minimizing the cancer risk of the other third of patients who progress.

The latter half of Dr. Klotz's presentation focused on efforts to improve active surveillance techniques. In the past, most approaches depended on repeat prostate biopsies, often yearly. Prostate biopsies can be painful, and pose a risk for bleeding and infection.

Dr. Klotz pointed out that the use of prostate MRI imaging can dramatically reduce the need for repeat biopsies. First, MRI can be useful as a part of the initial evaluation.

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### REPORT: NIH ACTIVE SURVEILLANCE MEETING (continued from page 21)

Routine TRUS-guided biopsies concentrate on the posterior (the back side of the prostate that can be felt with the DRE and is easiest to biopsy), but often miss cancer in the anterior prostate gland (the front side, away from the rectum). However, multiparameter MRI can detect cancer in the anterior gland, and do a better job of detecting intermediate- and high-risk cancers. This will likely reduce the proportion of patients who progress on active surveillance. Once the patient is on active surveillance, repeat MRI studies can reduce the risk for yearly biopsies. This works because MRI does a very good job of detecting advancing disease. In other words, if an MRI does not find a problem, there probably isn't one.

Here at AIDP (www.prostateteam.com), we have found that a color Doppler ultrasound, performed by Dr. Duke Bahn, serves the same function that multiparameter MRI does at Sunnybrooke.

How does watchful waiting differ from active surveillance? Watchful waiting does not have a curative intent. There is no attempt to identify patients with progressive disease, and send them for surgery or radiation therapy. Patients are only treated when they develop symptoms.

In the PIVOT trial, the control arm was watchful waiting, not active surveillance. The favorable results of that trial suggest that there are patients who will do well without biopsies or imaging. However, at the meeting, no one presented convincing data on how to identify these patients. Extensive work is being done to see whether gene profiling can identify patients who do not need surveillance.

After attending this meeting, I think active surveillance is the best solution to the issues raised by the Task Force. It provides a mechanism that allows us to avoid subjecting low-risk patients to the harm caused by surgery or radiation therapy, while ensuring that those who need treatment receive it.

The major challenge is finding physicians who are committed to active surveillance. Most community urologists continue to favor surgery for low-risk prostate cancer – and it is certainly rare that a urologist, radiation therapist or medical oncologist would be interested in taking the time to develop an effective active surveillance program. For this reason, active surveillance will now become a major focus of AIDP as we attempt to fill this gap. •



*Dr. Charles "Snuffy" Myers* is a medical oncologist and prostate cancer survivor.

Myers was a key player in creating AZT, Suranim, and Phenylacetate while working at the National Institutes of Health.

With over 250 research papers published, Myers is one of the leading developers of today's prostate cancer canon on both the research and treatment side of the test tube.

Former Cancer Director at the University of Virginia, Myers opened the American Institute for Diseases of the Prostate (www.prostateteam.com) in 2002 to provide men with the kind of comprehensive care that saved his own life. To sign up for his free weekly prostate cancer video blog or subscribe to his monthly newsletter, visit www.prostateforum.com.

### **Empowerment Without Medical Advice:**

### **PCRI Support Line Stories**

### Jan Manarite, PCRI Senior Educational Facilitator

hen you care enough to help others, it is always a challenge to not overstate, or "advise" someone on what treatment they "should" have. And it's also a challenge not to push them into trying what you did. The truth is that these tendencies surface because you care.



But another powerful truth is that every prostate cancer is different, every man's health is different and every person's priorities are different. So "advising" can be wrong – simply put. For PCRI Educational Facilitators, it is a priority not to advise our callers, and a challenge we face daily. Likewise, it is also a priority to "empower" the caller. This section will highlight some techniques we use to accomplish this meaningful goal.

### When does surgery make sense?

There has been a good share of bad press about prostate surgery (prostatectomy). There are many stories of men who regretted the decision, or who were left totally incontinent or impotent. In light of recent developments in active surveillance, it can be easy to quickly conclude that surgery is a bad decision for every man. That would be an overstatement.

Although it is a small percentage, some men who have had surgery – whether robotic or open abdominal – are thankful they did. So what makes the differences between these two experiences: those who are thankful they chose surgery, and those who are not? There is no perfect answer, but certain factors may help make the decision more clear.

One such factor is characteristics of the cancer – how much cancer is present, and where. Other factors to consider can include patient age and the surgeon: a younger man usually has a greater chance of recovering sexual function. And sometimes it may make sense to travel to have surgery done by a highly skilled artist. This story demonstrates both of these factors – a story worth hearing.

One of PCRI's support line callers (we'll call him VC) lives in the mountainous, historic Northern United States. VC was surprised to learn of his prostate cancer diagnosis at the young age of 46. He did not have a lot of risk factors, but was glad he had taken his PSA at a routine checkup with his family doctor. The prostate biopsy showed a Gleason of 3+3=6; his DRE was negative, giving him a clinical stage of T1c; his PSA was 6.3 and prostate size about 30 g. His biopsy pathology report also revealed cancer in five out of 10 cores, and showed two biopsy cores which were greater than 50% involved.

We discussed the pros and cons of different treatment choices, in context of PCRI *Insights* articles, medical literature and other tools. We also talked about his personal fears, priorities and overall health. I tried to equip VC with information that was as objective and clear as possible. I suggested he obtain his actual medical records, and helped him understand his pathology report. Understanding the significance of having 50% of the prostate involved and two cores that were over 50% cancerous was something he weighed in his decision. I never told him he should have a certain treatment, but I helped him access information he didn't have, and better understand the information he did have.

For VC, the idea of active surveillance wasn't reassuring enough for him at such a young age and with the amount of cancer found. Radiation wasn't really something he wanted. After much thought and debate, he chose surgery.



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### PCRI Support Line Stories (continued from page 23)

I shared information with him about the importance of seeking out an artist in surgery. He took this information, did his own research and decided to travel several hours to Pennsylvania for robotic surgery with a surgeon who had done well over 300 robotic prostatectomies. There were other experts who had also performed more than 300 robotic prostatectomies, but VC's research and discussion with others gave him confidence in his choice.

Although it took several months after surgery, VC regained his sexual function to a place where he was very satisfied. Urinary function was not a real issue - in his own words, he is "completely satisfied" and not incontinent.

For VC, another benefit to surgery was that the pathology report showed a small amount of Gleason grade 4 not discovered at biopsy, which was removed. The pathology report also showed some pre-cancerous cells (high-grade PIN), which were removed. Although his clinical stage was T1c, his pathological stage turned out to be T2c. Both the prostate and seminal vesicles were removed.

Surgery is not the right treatment for every man because every man is different, and every prostate cancer is different. But surgery is not the wrong choice for every man either. The challenge is understanding your personal pros and cons in context of your health, cancer, age and overall situation.

I never "advised" VC on which treatment he "should" have. But I believe he made a much better treatment decision because PCRI helped empower him. He has thanked me several times and sent other callers to PCRI's support line. Whatever turn his journey takes, I hope VC lets PCRI continue to help him remain that empowered patient and survivor.