

**WRNMMC Us TOO, Inc.**  
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**NEWSLETTER**

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**◆ The ABCs and Ds of Prostate Cancer Screening. ◆**

It can be hard for physicians to follow current thinking of experts on medical care. It is much harder for the public to make sense of it. Recently, the United States Preventive Services Task Force changed its recommendation on prostate cancer screening from a D (that is, don't do it) to a C (discuss it with your doctor). Although there seemed to be a lot of coverage of this announcement in the news media, and a fair amount of excitement, there are two things men should know. First, it's a good thing that recommendations change over time; second, this change isn't as big a deal as you might think.

The task force is made up of volunteers who are experts in primary care and preventive medicine. They are charged with evaluating the benefits and harms of preventive services (like prostate cancer screenings) to determine whether they should be widely performed. An "A" recommendation from the panel can be interpreted as an endorsement that everyone get a service because there's a high certainty of a substantial benefit. A "B" recommendation is similar, but means that there's only a high certainty of a moderate net benefit. A "D" recommendation advises patients not to get a service because there's a moderate certainty of no net benefits, or because the harms from a service outweigh the benefits.

Five years ago, the task force gave prostate cancer screening an overall "D" recommendation because there are real harms from over-diagnosis of the disease. Over-diagnosis leads to unnecessary treatments, and a newly discovered cancer could lead to no symptoms or harm over the patient's lifetime.

The treatments for prostate cancer, including radiation and prostatectomy, have high levels of adverse events. About 75 percent of all the men treated will have impotence, incontinence or both. Further, at the time of the 2012 statement, there appeared to be little evidence that screening with a prostate-specific antigen blood test (PSA) reduced prostate cancer mortality. With no clear benefit, and significant harms, a "D" recommendation seemed appropriate.

**(Continued on page 10)**

**◆ INSIDE THIS ISSUE ◆**

***PCa Screening . . . . . Page 1***  
***PCa Specific Issues . . . . . Page 3***

***PCa and Sexuality . . . . . Page 12***

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**◆ FROM THE EDITOR ◆**

Let us hear from you if you have any suggestions about the newsletter. Also, we would be pleased to provide the newsletter to your friends or family members who may be confronting prostate cancer.

**◆ SPEAKER'S REMARKS - MAY 4, 2017 ◆**

Our speaker on Thursday, May 4, 2017, was Dr. Robert Dean, Department of Urology, WRNMMC, whose topic was **"Sexual Issues Related to Prostate Cancer Treatment."** A summary of his remarks is at page 14.

**◆ MEETING SCHEDULE FOR AUGUST 3, 2017 ◆**

Our speaker for Thursday, August 3, 2017, is **Dr. Sean Kern**, Department of Urology, Fort Belvoir Community Hospital, whose topic is **"Overview of the Surgical Treatment of Prostate Cancer."** Please join us at 7:00 PM in the America Building (Bldg 19), 2nd floor, Room 2525 at WRNMMC or at the Fort Belvoir Community Hospital (Oaks Pavilion, 1st floor, Room 332). The presentation will be "live" from Fort Belvoir.

Remember, your family and friends are also welcome.

**See the back page for information about getting access.**

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## ◆ PROSTATE-SPECIFIC ISSUES ◆

**Psychological Stress in Men with Prostate Cancer and their Partners.** A study examined the relative risk of psychological distress of men with prostate cancer and their partners during the period before and after prostate cancer diagnosis compared with men without prostate cancer and their partners.

The participants reported questionnaires on psychological distress at four time points: before prostate cancer biopsy, and at 1, 3 and 6 months following prostate cancer diagnosis. A total of 115 couples answered the questionnaires at all four time points. Men with prostate cancer showed a significantly higher risk of psychological distress compared to men without prostate cancer at 1 and 6 months following prostate cancer diagnosis. Their partners showed a significantly higher risk of psychological distress compared to the partners of men without prostate cancer at 1 month following prostate cancer diagnosis.

Men with prostate cancer showed psychological distress during the 6 months following the cancer diagnosis. Their partners also showed psychological distress at 1 month following the cancer diagnosis. Inviting both men with prostate cancer and their partners to speak to their concerns, empathizing with them, finding the solutions together and monitoring of their psychological status regularly should be regarded as important following prostate cancer diagnosis. (Source: Japanese Journal of Clinical Oncology, May 15, 2017) [Epub ahead of print]

**Immunotherapy in Prostate Cancer: Facts and Hopes.** In the last few years immunotherapy has become an important cancer treatment modality and while the principles of immunotherapy evolved over many decades, the FDA approvals of sipuleucel-T and ipilimumab began a new wave in immuno-oncology. Despite the current enthusiasm, it is unlikely that any of the immunotherapeutics alone can dramatically change prostate cancer outcomes, but combination strategies are more promising and provide a reason for optimism.

Several completed and ongoing studies have shown that the combination of cancer vaccines or checkpoint inhibitors with different immunotherapeutic agents, hormonal therapy (enzalutamide), radiation therapy (radium 223), DNA-damaging agents (olaparib), or chemotherapy (docetaxel) can enhance immune responses and induce more dramatic, long-lasting clinical responses without significant toxicity.

The goal of prostate cancer immunotherapy does not have to be complete eradication of advanced disease, but rather the return to an immunologic equilibrium with an indolent disease state. In addition to determining the optimal combination of treatment regimens, efforts are also ongoing to discover biomarkers of immune response. With such concerted efforts, the future of immunotherapy in prostate cancer looks brighter than ever. (Source: Clinical Cancer Research, an official journal of the American Association for Cancer Research. June 29, 2017. [Epub ahead of print])

**Prostatectomy Versus Radiation: A Recent Study.** In a recent study, younger patients who chose surgery versus radiation for initial treatment had a 48% survival advantage. It showed that men younger than 60 years with high-risk prostate cancer (PCa) have better overall

survival when their initial treatment is radical prostatectomy (RP) rather than radiation (RT), according to researchers at the 2017 American Society of Clinical Oncology (ASCO) annual meeting.

Kaiser, MD, et al, the University of Maryland, Baltimore, found a significant 48% improvement in overall survival with RP at a median follow-up of 50 months. Estimated survival at 8 years also favored surgery: 85.1% vs 74.9% for RT.

The team adjusted for other factors expected to affect prognosis, including year of treatment, comorbidity score, Gleason score, T stage, use of hormone therapy and chemotherapy, type of radiation therapy, PSA, age, race, and insurance status.

They based their analysis on 16,944 younger patients who had Gleason score 8 to 10 with no metastasis or nodal involvement. During 2004 to 2013, 12,155 of the men underwent RP and 4,789 received RT as initial therapy. RT was external beam radiation (EBRT) alone or EBRT with brachytherapy at a median dose of 77.4 Gy. A majority of RT patients (82.5%) also received hormone therapy. In the surgery group, 17.2% of patients received radiation; most at a dose above 64.8 Gy.

"The results should be viewed as hypothesis-generating rather than definitive," Dr. Kaiser told *Renal & Urology News*. "Patients undergoing surgery are afforded postsurgical pathological analysis and therefore may be offered additional therapy, including radiation, when adverse risk factors are noted. Or patients in the radiation group may have been understaged and failed to receive more aggressive therapy with regard to radiation field design or hormonal therapy. Brachytherapy boost was not widespread in the time period being studied, for example.

Overall survival was the only endpoint the investigators could analyze with this database, so they couldn't attribute the findings to fewer deaths from prostate cancer. Since selection bias is possible with any retrospective review, future prospective research is warranted. The team is planning a trial investigating whether surgery patients reap benefit from the addition of radiation and systemic therapy. (Source: *J Clin Oncol* 2017;35, Poster 156 presented at the 2017 American Society of Clinical Oncology annual meeting, Chicago, June 5, 2017, via Renal and Urology News)

**Clinical implications of the 2012 US Preventive Services Task Force PSA Screening Recommendation for PCa.** Prostate specific antigen (PSA) screening for prostate cancer has declined following the US Preventive Services Task Force (USPSTF) 2012 recommendation. No data exists regarding how screening rates and prostate cancer diagnoses have subsequently changed in a racially diverse patient population. A study aiming to determine the impact of the USPSTF screening recommendation was conducted within the Hennepin Healthcare System (HHS) in Minneapolis, Minnesota.

This was a single-institution retrospective analysis of data from the authors' center electronic health record, identifying the characteristics of PSA screening and new prostate cancer diagnoses for men  $\geq 50$  years between 2008 and 2015.

Nearly 22,000 patients underwent PSA screening from 2008 to 2015. PSA screening rates

decreased after May 2012 for the four largest demographics represented. Hispanics and Blacks were more likely to be screened when compared to Whites and Asians. 319 cases of prostate cancer were diagnosed from 2008 to 2015 with 87 cases (27.3%) diagnosed by PSA-screening. The number needed to screen to diagnose one patient with prostate cancer at HHS was 137.5, and 9.5% of patients (1146 patients) had a false positive PSA that led to further testing or a biopsy. \$56,090 was spent in screening costs per diagnosis of early stage prostate cancer via screening. Patients diagnosed from screening were less likely to present with high Gleason scores (8-10) compared to non-screening diagnosis (8% vs 23.3%. The 5-year survival percentage (prostate cancer mortality) was improved for those patients diagnosed by PSA screening vs. the non-screened group (100% vs 89.3%,  $p < 0.05$ ).

In conclusion, PSA screening has declined at HHS since the USPSTF recommendation against prostate cancer screening in 2012. Implementation of PSA screening in the authors' healthcare system was expensive and led to a high number of false positives. However, the 5-year survival from prostate cancer is significantly higher when patients are diagnosed by PSA screening. (Source: ASCO 2017 Annual Meeting, June 2-5, 2017, via UroToday)

### **Abiraterone Delays Metastatic Prostate Cancer Growth by 18 Months, Extends Survival.**

Adding abiraterone acetate plus prednisone to standard hormonal therapy for men newly diagnosed with high-risk, metastatic prostate cancer lowers the chance of death by 38%. In a phase III clinical trial of 1,200 men, abiraterone also more than doubled the median time until the cancer worsened, from 14.8 months to 33 months.

“There is a large unmet need to improve treatment for men with newly diagnosed metastatic cancer, who die of the disease within less than five years on average,” said lead study author Karim Fizazi MD, PhD, head of the Department of Cancer Medicine at Gustave Roussy, University Paris-Sud in Villejuif, France. “The benefit from early use of abiraterone we saw in this study is at least comparable to the benefit from docetaxel chemotherapy, which was observed in prior clinical trials, but abiraterone is much easier to tolerate, with many patients reporting no side effects at all.”

Prostate cancer growth is fueled by testosterone. Androgen deprivation therapy, or ADT, is active against prostate cancer by preventing testicles from making testosterone. Despite ADT, the adrenal glands and prostate cancer cells continue making small amounts of androgens. Abiraterone stops production of testosterone throughout the body by blocking an enzyme that converts other hormones to testosterone. The FDA previously approved abiraterone for patients with metastatic prostate cancer that worsened despite ADT.

The study is a multinational, randomized placebo-controlled phase III clinical trial of men with newly diagnosed, high-risk metastatic prostate cancer who had not previously received ADT. All patients had at least two of three risk factors: Gleason score (a measure of tumor grade) of 8 or more, 3 or more bone metastases, or 3 or more visceral metastases (spread to other organs in certain areas of the body, such as the liver).

The patients were randomly assigned to receive ADT plus abiraterone and prednisone or ADT plus placebo. Corticosteroid prednisone is routinely given with abiraterone to manage certain side effects of abiraterone, such as low potassium or high blood pressure. These were the key findings. At a median follow up of 30.4 months, men who received

abiraterone had a 38% lower risk of death than those who received placebo. The median overall survival had not yet been reached in the abiraterone group (meaning that more than 50% of patients in that group were still alive at the time of analysis, so a median survival could not be calculated) and was 34.7 months in the placebo group. Abiraterone was also associated with a 53% lower risk of the cancer worsening than the placebo and resulted in cancer growth being delayed by a median of 18.2 months.

Several severe side effects were more common with abiraterone acetate and prednisone than placebo: high blood pressure (in 20% vs. 10% of men), low potassium level (10.4% vs 1.3%), and liver enzyme abnormalities (in 5.5% vs. 1.3% of men).

“We need to be cautious when using abiraterone in men who have an increased risk for heart problems, such as those with diabetes,” said Dr. Fizazi.

“We had been treating metastatic prostate cancer the same way for 70 years until docetaxel chemotherapy was shown to improve survival in 2015, and now in 2017 we show abiraterone is also helping patients live longer,” said Dr. Fizazi. “The next step is to see if adding abiraterone on top of docetaxel offers further benefit,” a study which is currently ongoing in Europe. (Source: 2017 ASCO Annual Meeting - June 2 - 6, 2017 :Chicago)

**Treatment Side Effects.** Urinary incontinence and diminished sexual function were common after a median follow-up of nearly 15 years, a study finds. Adverse effects from definitive treatment of localized prostate cancer (PCa), such as urinary incontinence and sexual dysfunction, persist for more than a decade and differ according to the type of treatment, according to a new study.

In *Cancer Medicine*, Zietman, MD, et al, Massachusetts General Hospital, Boston, reported survey results from 194 patients who underwent radical prostatectomy (RP); external beam radiation therapy (EBRT); or brachytherapy during 1994 to 2000. (Nine percent of EBRT patients also had a brachytherapy boost.) Patients reported bothersome symptoms on the Prostate Cancer Symptom Indices and other indices.

Over a median follow-up of 14.6 years, all patients reported worse functioning in some areas after treatment than before. RP patients had significantly worse urinary incontinence and sexual function. EBRT patients scored worse in every domain, including urinary incontinence, irritation, and obstruction, bowel function, and sexual function. Brachytherapy patients reported worse urinary incontinence, urinary irritation or obstruction, and sexual function.

Comparing treatment modalities, RP patients showed greater decline in urinary continence than brachytherapy patients, according to the investigators. EBRT and brachytherapy patients had more urinary irritation or obstruction than surgery patients. No significant differences in bowel function were found among the groups. All patients reported considerable decline in sexual function, regardless of treatment modality.

Patients' functionality prior to definitive therapy significantly correlated with urinary obstruction and bowel function more than 10 years later, but not with urinary incontinence or sexual function. Age was the only significant predictor of current sexual function. The investigators suggested that all men may develop severe sexual dysfunction over time regardless of treatment

modality. At 12 to 18 years after treatment, patients' median ages were 75, 82, and 77 years for RP, EBRT, and brachytherapy, respectively. The researchers could not assess the possible influences of androgen deprivation or salvage therapy.

The study results provide useful information on long-term quality of life after definitive treatment that extends short-term findings provided by ProtecT and other recent studies.

“This is one of the few prospective reports on quality of life for prostate cancer patients beyond 10 years, and adds information about the late consequences of treatment choices,” Dr Zietman and colleagues commented. “These data may help patients make informed decisions regarding treatment choice based on symptoms they may experience in the decades ahead.”

The researchers acknowledged that evolution in techniques and technology may have affected results. In addition, the study did not randomly assign patients to treatment or have a control group of untreated patients, which are limitations. (Source: *Cancer Medicine*, May 31, 2017 [Epub ahead of print])

**Regret after Treatment for Low- and Intermediate-Risk Prostate Cancer.** Prostate cancer patients diagnosed with low- and intermediate-risk disease have several treatment options. Decisional regret after treatment is a concern, especially when poor oncologic outcomes or declines in health-related quality of life (HRQoL) occur.

This study assessed determinants of decisional regret in prostate cancer patients attending a multidisciplinary clinic and treated with radical prostatectomy (RP), external beam radiation therapy (EBRT), brachytherapy (BT), or active surveillance (AS).

Patients newly diagnosed with prostate cancer at the Walter Reed National Military Medical Center who attended a multidisciplinary clinic were enrolled into a prospective study from 2006 to 2014. The Decision Regret Scale was administered at 6, 12, 24, and 36 months post treatment. Quality of life was also assessed at regular intervals using the Expanded Prostate Cancer Index Composite and 36-item RAND Medical Outcomes Study Short Form questionnaires. Adjusted probabilities of reporting regret were estimated via multivariable logistic regression fitted with generalized estimating equations.

A total of 652 patients met the inclusion criteria (395 RP, 141 EBRT, 41 BT, 75 AS). Decisional regret was consistently low after all of these treatments. Only African American race was associated with greater regret across time. Age and control preference were marginally associated with regret. Regret scores were similar between RP patients who did and did not experience biochemical recurrence. Declines in quality of were weakly correlated with greater decisional regret.

The study concluded that in the context of a multidisciplinary clinic, decisional regret did not differ significantly between treatment groups, but was greater in African Americans and those reporting poorer quality of life. (Source: *Cancer*, July 5, 2017 and the Amer Cancer Society)

**No Benefit with Surgery for Low-Risk Prostate Cancer Points.** Almost 20 years after prostate cancer diagnosis, men who had immediate surgery lived no longer than those who entered observation, a randomized trial showed. Neither overall survival (OS) nor prostate

cancer-specific survival (PSS) differed significantly between the two groups, after a median follow-up of 12.7 years and total follow-up for as long as 19.5 years in some cases.

In contrast, OS among men with low-risk disease, who accounted for a majority of the study population, differed by less than 1% between the groups, and a 2.3% difference favoring surgery for high-risk disease did not achieve statistical significance, as reported online in the *New England Journal of Medicine*.

Wilt MD, et al, Minneapolis VA Health Care System and University of Minnesota, found that death from prostate cancer was very uncommon among men with low-risk disease who were assigned to observation. Surgery may be associated with decreased mortality among men with intermediate-risk prostate cancer, depending on the pathological classification.

Surgery resulted in substantially greater long-term urinary incontinence and erectile and sexual dysfunction than observation and was associated with a significantly lower risk of disease progression and additional treatments, most for local or asymptomatic biochemical progression.

Knowledge of the natural history of prostate cancer increased dramatically since the trial began. As an example, he noted that 40% of the patients initially were classified as having low-risk disease by accepted criteria for the time. Tumor grade of Gleason 3 + 3, currently a standard criterion for active surveillance, was not considered low risk when the trial was designed. A

Nowadays, the emerging standard of care for patients with Gleason 6 tumors is active surveillance. The risk of cancer death is so low that it's probably safer to put them on surveillance and monitor them. The total number of patients in this trial who were truly high risk is really quite low.

The findings came from long-term follow-up of the PIVOT randomized trial, which began accruing patients in 1994, in the early days of routine PSA testing. The safety and efficacy of active surveillance and other forms of observation for prostate cancer remained very much in question. The trial initially had an accrual goal of 2,000 men, but recruitment difficulties led investigators to scale back enrollment to 740 patients, accrued over 7 years and followed for an additional 8 years.

Eligible patients had clinically localized prostate cancer, any grade, PSA <50 ng/mL, age <75, negative bone scan, and an estimated lifespan of at least 10 years. Patients assigned to radical prostatectomy had surgery within 12 months of diagnosis.

The trial had a primary endpoint of all-cause mortality, and PSS was the principal secondary outcome. A previous report from the trial, after a median follow-up of 10 years, showed no difference between treatment groups for the primary or secondary endpoints.

The updated analysis occurred after 468 of 731 (64.0%) randomized patients died. Patients randomized to surgery had a 16% reduction in the hazard ratio for survival compared with the observation group, but the difference did not achieve statistical significance. The 19.5-year cumulative mortality was 61.3% in the surgery group and 66.8% in the observation arm, representing an 8% reduction in relative risk, also not significant. Median survival was 13.0 years with surgery and 12.4 years with observation.

Men assigned to surgery had substantially lower rates of disease progression (40.9% versus 68.4%) and treatment for disease progression (33.5% versus 59.7%). Surgery was associated with more problems reflected in patient-reported outcomes, including bother, physical discom-

fort, activity limitation, use of absorbent pads, and erectile/sexual dysfunction.

A commentator said that if you screen and treat all prostate cancer patients, you're really only helping a small number of them, The physician who is focused only on PSA testing, biopsy, and treatment, and ignores the pack of cigarettes in a man's front pocket, is missing the real opportunity to make a difference in the morbidity and mortality of this person."

If you look at differences in outcomes, surgery versus observation, the curves continually diverge over time, so that if you are looking at a 55-year-old man versus an 82-year-old man, the likelihood that treatment will make a difference for the 82-year-old man is remarkably lower. The focus really needs to be on men with longer life expectancies, because if there is an impact of treatment, that's where it will happen."

The study was supported by the Department of Veterans Affairs, the Agency for Healthcare Quality and Research, and the National Cancer Institute. (Source: *NE Jnl of Med*, via Med-PageToday, July 12, 2017)

### **Four vs 10 Months of Induction Androgen-Deprivation Therapy for Intermittent Therapy.**

Men with metastatic prostate cancer are placed on androgen-deprivation therapy (ADT) for control of their disease. However, long-term ADT can have consequences on men's health, including risk of osteoporosis and heart disease, along with the associated adverse events.

As quality of life can suffer while on ADT, the concept of intermittent ADT (IADT) was introduced as an alternative – periods of ADT cessation to allow for normal testosterone recovery. Proven to be non-inferior to continuous ADT, IADT is now well-established in patients with non-metastatic disease

However, the optimal induction course of ADT has never been determined. How long of an induction course is needed before allowing for the first break from therapy? In this prospective, open-label, multicentre, randomized Canadian trial, 101 patients were enrolled, and 91 were randomized between 4 and 10 months of degarelix. Only patients with biochemical recurrence after definitive local therapy with surgery or radiation, a rising prostate-specific antigen (PSA) >5.0, serum testosterone > 8 nM/dL, and no bone metastases were included in the study. Patients were stratified for PSA < or >10 and Gleason score ≤ or >7. The primary endpoint was the time until PSA reached 5.0 during the off-treatment interval. Patients were treated with degarelix as the study was funded by Ferring. Patients were given induction dose of 240 mg, and then either 3 or 9 months of 80 mg monthly dose.

Of the men included, the median age was 75 and median PSA was 12; there was no significant difference between the two groups in median age, PSA, body mass index (BMI), racial distribution, Gleason score, T stage, Eastern Cooperative Oncology Group (ECOG), smoking history, or baseline testosterone.

The median time off treatment was 22.8 months. There was no difference between the two groups in the median off-treatment interval, PSA nadir <0.1, but not baseline PSA ≤ or >10, predicted for more prolonged time off treatment. There was no difference in time to testosterone recovery between the groups (median 7.2 months).

This important study indicates that a short induction course of just 4 months can be sufficient for initiation of IADT. By reducing the start interval, patients can get back to improved quality of life sooner. Ultimately, these patients need to be followed to identification of disease progression to ensure there is no difference in time to progression.

### **External Beam Radiotherapy Affects Serum Testosterone in Patients With Localized Prostate Cancer.**

Previous studies have examined testosterone levels after external beam radiation (EBRT) monotherapy, but since 2002 only sparse contemporary data have been reported. This study examined testosterone kinetics after EBRT monotherapy and their influence on biochemical recurrence. EBRT monotherapy influences testosterone kinetics, and although most patients will recover, approximately 45% will have biochemical hypogonadism.

The study was conducted in 425 patients who underwent definitive EBRT for localized prostate cancer from 2002 through 2014. Patients were enrolled in several phase II and III trials. Exclusion criteria were neoadjuvant or adjuvant androgen-deprivation therapy or missing data. Testosterone was recorded at baseline and then according to each study protocol (not mandatory in all protocols).

We report on the largest contemporary series of patients treated with EBRT monotherapy in whom testosterone kinetics were ascertained. Limitations are that testosterone follow-up was not uniform and the study lacked information on health-related quality-of-life data.

Our findings indicate that up to 75% of patients will have a profound testosterone decrease, with up to a 40% increase in rates of biochemical hypogonadism, although the latter events will leave biochemical recurrence unaffected. (Source: *J Sex Med* May 22, 2017)

### **(CONTINUED FROM PAGE 1 - ABC and D)**

Many disagreed. They argued that there were benefits to screening, and that those would be shown through better research. They were, to some extent, correct. In 2014, researchers for the largest randomized controlled trial to date published an update of an earlier study, and it showed that offering men screening reduced their relative risk of dying of prostate cancer over 13 years by 21 percent. Another study published in late 2012 showed that offering screening reduced the relative risk of metastatic disease by 30 percent.

This meant that it was no longer true that there was no evidence of net benefits for screening, and a “D” no longer applied. Therefore, the task force altered its recommendation to a “C,” which means there’s moderate certainty that the overall benefit is small. That signals to patients and physicians that they should make an individual decision based on patient preferences and circumstances.

It’s important to note that these changes apply only to men 55 to 69. For men 70 and older, the harms outweigh the benefits, and the screening recommendation remains a “D.”

I’m sure the nuances of A, B, C and D recommendations can be confusing to the public. They can also make it seem as if experts are constantly changing their minds. But this is how we want our experts to react: When new evidence is found, it should be added to older evidence to change our thinking when appropriate.

On the other hand, caution is still warranted when thinking about whether a man should be screened for prostate cancer. Although there is now evidence of a benefit, and its relative importance seems impressive, its absolute effects are not as persuasive.

According to these studies, a 55-year-old man has about a 0.6 percent chance of dying of prostate cancer over the next 10 to 15 years. If he is screened, that chance goes down to 0.5 percent. That's how you get almost a 20 percent relative reduction, but an absolute reduction of only 0.1 percentage points.

Further, if a man is screened, the studies show that there's about a 25 percent chance he will have a positive PSA test at some point. Of all men screened, about 10 percent will be found to have prostate cancer, and about 8 percent will be treated with surgery or radiation.

So out of 1,000 men screened, 80 will eventually have surgery or radiation. Three will avoid the spread of cancer to other organs. One or two will avoid death from prostate cancer. Sixty will have urinary incontinence and/or impotence. Many men will probably still think the risks outweigh the benefits.

One of the biggest concerns with screening is that too many men are treated for slow-moving prostate cancers that might never really pose a risk to their health. A new approach, known as active surveillance, offers an alternative. Instead of receiving immediate surgery or radiation, men with lower-risk cancer are watched more closely and receive more frequent PSA tests and biopsies. If the cancer progresses, they receive interventions. About 40 percent of men with lower-risk disease were treated this way from 2010 to 2013, up from 10 percent of men from 2005 to 2009.

The goal of health care, as always, should be to maximize the benefits of care while minimizing the harms. With this most recent recommendation, the preventive services task force recognizes that PSA screening now has more evidence to support its upside. There's still a large downside, though, and the ways in which we respond to positive screens should try to minimize interventions. (Source: New York Times, June 26, 2017)

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◆ **SEXUAL ISSUES RELATED TO PROSTATE CANCER TREATMENT** ◆  
by  
**Colonel Robert C. Dean, MD**  
**Director of Andrology, WRNMMC**

( A summary of a presentation to the WRNMMC Prostate Cancer Support Group, May 4, 2017)

**Introduction**

Good evening! Thanks for the opportunity to discuss a subject that is so important to the quality of life for men dealing with prostate cancer. There are new developments since I last spoke with you and I want to emphasize them tonight. And I want to have time to answer any questions you may have.

What is erectile dysfunction and how prevalent is it? Simply stated, erectile dysfunction is the inability to maintain an erection sufficient for sexual intercourse. This is a very common problem. One in five men have ED. That's over 30 million American men! In 90 percent of the cases the problem is a physical one, not a psychological one.

Most men will have an occasional problem in getting an erection - that is perfectly normal and the problem resolves itself. But for many men, the problem will not go away. For these men ED is typically related to one or more physical causes. The physical causes include: diabetes, heart disease, surgery (prostate, colon, bladder), medications, spinal injury, and hormonal imbalance.

Then, too, ED is not solely the concern of older men. Many men in their thirties and forties can experience ED, although their causes are likely related to vascular disease rather than the aging process.

**(Dr. Dean then showed a series of slides depicting the mechanisms for erections as a neurovascular event.)**

**Barriers to Identifying ED**

Both the patient and the doctor may be sources of barriers to identifying the causes of ED. Typically, the patient is often reluctant to mention ED due to embarrassment, shame or sheer ignorance of normal sexual functioning, cultural beliefs about discussing sexuality, and simply discomfort. Similarly, doctors may fear offending the patient or causing discomfort. They may lack confidence in diagnosing and treating ED. There may be interpersonal differences in culture, religion, and ethnic matters and concern about interest in the patient's sex life.

This patient/physician tendency to avoid discussion of sensuality went away somewhat with the advent of Viagra! Men with ED problems were eager to test the effect of Viagra, and when it didn't work for them, these same men were willing to try other therapies that might be helpful.

## Oral Therapy for ED

Sildenafil (Viagra), vardenafil (Levitra), and tadalafil (Cialis), the so-called PDE5 inhibitors, are all competitive medications to overcome ED. They work by enhancing the relaxation of the smooth muscles of the corpora cavernosa which eventually results in a penile erection.

Avanafil is the newest addition to the PDE5 array. It was found to be effective, providing a quick response, and was well-tolerated in its major clinical trial. The PDE5 inhibitors have also had some success in enhancing erectile function recovery soon after radical prostatectomy.

## Alternatives When Oral Treatment for ED fails

**1. Vacuum Erection Devices (VED)** are a well-known, noninvasive alternative when the PDE5 oral therapy is ineffective. No doubt some of you here tonight have relied on them. It involves the placement of a cylindrical device over the penis. The VED mechanism relies on a battery-operated or hand-held pump that creates a vacuum causing blood to flow into the penis where it is sustained by a constricting band at the base of the penis. The VED is very safe and without any medicinal side-effects.

In one study the VED was found to be helpful in maintaining penile length when used soon after surgery. It did so for a large segment of the men participating in the study. By "exercising" the penis in this manner, so to speak, penile length was maintained by the men using a VED as compared to men in the study who did not use the VED.

**2. Intracavernosal injections.** The drug alprostadil (a smooth muscle-relaxing medication) is self-injected into the side of the penis, and it works directly on the blood vessels to produce a satisfactory erection for most men who use it.

**3. MUSE** (Medicated Urethral System for Erection) also delivers alprostadil to the penis, but uses an applicator to insert a small pellet about 1.0 to 1.5 inches into the urethra where it melts and is diffused into the penis, causing an erection. MUSE is less effective than the Intracavernosal injection method, and its attrition rate among users is high.

**(Dr. Dean then displayed several slides that portrayed the employment of MUSE and intracavernosal injection.)**

**4. Penile Prosthesis Implantation.** Penile implants are ideal for men who have tried other methods without success or with limited efficacy. They have been on the market for about 30 years and have demonstrated their effectiveness. Also, there have been substantial product improvements and surgical technique over the years. Over 1.3 million implantations have been performed, and about 42,000 implantations are done annually.

Penile implants have the highest acceptance rate among patients and their partners. Overall satisfaction rates are 40% for penile injection; 51% for oral medications; and 93% for penile implants.

**(Dr. Dean then displayed several slides illustrating the several types of penile prostheses: the malleable/semi-rigid, the mechanical rod, and inflatable implants.)**

### **Recuperative Therapy**

So when do you get your erection back? It can take up to three years to regain full erection. For many men the post-therapy return of erections does not match their pre-therapy capability.

But we don't wait three years to begin erectile recovery. We start very early after primary therapy. This more aggressive approach began about 2003. We start men on Viagra, Levitra or injection therapy right away post-therapy. This helps get their erections back sooner, and when they do return, the penis is healthier. Early recuperative therapy is an effective technique in combating post-therapy ED. Men facing primary therapy for prostate cancer should be made aware of it.

### **Peyronie's Disease**

i want to mention Peyronie's Disease which is the curvature of the penis. We see it most often in younger men and Caucasian men after surgery or radiation for prostate cancer. There is still some debate about the cause of the disease, but it has been attributed to poor blood flow into the penis, causing more scarring in one area than another. Or it may be attributable to ED itself. We await a definitive explanation.

### **Second Opinions**

People who have cancer increasingly seek second opinions. We know little about what motivates patients to seek them and how beneficial they are. This uncertainty by patients or communicated by the physician may be crucial throughout the second opinion process.

One study sought to investigate (1) how uncertainty influences men with prostate cancer to seek second opinions and (2) how second opinions may affect these patients' sense of uncertainty and subsequent experiences with their care.

A qualitative study using semi-structured interviews was performed. Men with localized or advanced prostate cancer (n=23) were interviewed by telephone about their motivations and experiences with seeking second opinions and the uncertainties they experienced. Analysis was performed using the constant comparative method.

Patients sought second opinions because they were uncertain about receiving too little or biased information, experienced insufficient support in coming to a treatment decision, or because physicians expressed different levels of uncertainty than they did ("unshared uncertainty").

Uncertainty was reduced by the second opinion process for most patients, whereas for others, it increased or was sustained. This evolution depended on the way uncertainty was addressed during the second opinion consultation.

## **Keeping Informed**

In closing, I want to make you aware of an educational resource that may be useful to you. The Sexual Medicine Society of North America is an organization dedicated to the promotion of sexual-health education. Its website has a range of topics about issues that could be useful to you. I encourage you to visit its website at [www.sexhealthmatters.org](http://www.sexhealthmatters.org).

Again, it's my pleasure to be with you tonight. Now let me have your questions.

**(Dr. Dean answered a broad range of questions from the audience)**

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◆ MEETING ANNOUNCEMENT ◆

THURSDAY, AUGUST 3, 2017

7:00 - 8:30 PM

AMERICA BUILDING (BLDG 19, 2D FLOOR) ROOM 2525  
(DIRECTLY ABOVE THE LAB/PHARMACY)

WALTER REED NATIONAL MILITARY MEDICAL CENTER

◆ SPEAKER ◆

SEAN KERN, MD

DEPARTMENT OF UROLOGY

FORT BELVOIR COMMUNITY HOSPITAL

◆ TOPIC ◆

"OVERVIEW OF THE SURGICAL TREATMENT OF PROSTATE CANCER"

**Gate/Park at WRNMMC:** If you enter the base through South Gate (Gate 2) off Rockville Pike/Wisconsin Avenue, take the first right (Palmer Road South). On your left will be the Emergency Room. Continue to follow signs to the America Building and the America parking garage.

**Security:** A military ID card is required to get on base. Persons without a military-related ID card who are attending the meeting are required to register in advance in order to gain entry. To register, contact the CPDR front desk at 301-319-2900 at least four business days prior to Thursday, 2016, to arrange entry. Have a photo ID card ready when arriving at the gate.