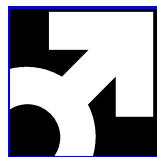


Prostate Cancer Support Association of New Mexico



LIFELINE

PCSANM Quarterly

April 2016

Volume 23, Issue 2

Issue Highlights

PET Imaging Promising	1
Dr. Lindberg's Take	3
Prostate-Specific Antigen (PSA) Test Fact Sheet	4-6
News You Can Use	7
Learn to prevent and control side effects from Chemo	8-10
African American men and Prostate Cancer Incidence	10
HIFU Prostate Services	11
Message from the Chairman	12

Our website address

www.pcsanm.org

e-mail

pchelp@pcsanm.org

Meeting Place:

PCSANM is meeting at Bear Canyon Senior Center, 4645 Pitt St NE in Albuquerque. This is two blocks from Montgomery and Eubank; go north one block to Lagrima de Oro St, and east one block to Pitt, and left 50 yards to the Bear Canyon parking lot. We are in room 3, at the west end of the building. Meetings are usually the first and third Saturdays of the month; from 12:30-2:45 pm.

Map: <http://binged.it/1baQodz>

Save the date for our next free conference

“Quality of life after PCa Diagnosis”

Saturday, November, 5, 2016

PET Imaging Promising for Metastatic Prostate Cancer

FromOncologyNurseAdvisor.com Kathy Boltz, PhD
February 12, 2016

<http://www.oncologynurseadvisor.com/pet-imaging-promising-for-metastatic-prostate-cancer/printarticle/473724/>

A small molecule radiotracer allowed positron emission tomography (PET) imaging of metastatic prostate cancer and was superior to conventional imaging modalities, according to a study of 17 patients published in *The Journal of Nuclear Medicine*.¹

Prostate cancer affects 1 in 7 American men during their lifetimes, according to the American Cancer Society. An estimated 180 890 new cases are expected in 2016. Further, about 2.8 million men in the United States are living with the disease and it is expected to cause 26,000 deaths this year.

Better imaging for metastatic prostate cancer is an ongoing goal because conventional imaging methods have limited sensitivity. Imaging can lead to appropriate and timely treatment to improve survival and quality of life.

The majority of prostate cancers express prostate-specific membrane antigen (PSMA), and high expression of PSMA is associated with metastatic spread. This study used a small-molecule inhibitor of PSMA that was radio-labeled, known as F-18-DCFBC.

The study stated that F-18-DCFBC is significantly more effective than other detection methods currently in use. PET/CT scans using F-18-DCFBC were compared to conventional imaging methods that included expanded Tc-99m-methylene diphosphonate (MDP) bone scan and contrast-enhanced CT of the chest, abdomen, and pelvis.

A larger number of lesions (592 vs 520) were detected by DCFBC PET than by conventional methods, in this lesion-by-lesion analysis of 17 patients. DCFBC PET had much greater sensitivity in the lymph nodes, bone, and visceral tissue compared with conventional methods (0.92 vs 0.71).

"PSMA-based PET imaging is a striking example of molecular imaging's ability to target and detect prostate tumor tissue, thereby markedly improving the imaging of a disease process," said corresponding author Steve Y. Cho, MD, corresponding author for the study and now an associate professor of nuclear medicine at the University of Wisconsin School of Medicine and Public Health in Madison.

FOUNDER Rae Shipp, established 1991**Board Members****Lou Reimer, Chairman****Charles Rowland, Treasurer****Dave Ball****Eli Maestas****Gary Cable****Jan Marfyak****Jerry Cross****Joe Piquet****Steve Denning****Prostate Cancer Support Contacts Around the State**

City	Contact	Phone
Clovis	Kim Adams	(575) 769-7365
Farmington	Fran Robinson	(505) 609-6089
Grants	Dorie Sandoval	(505) 285-3922
Los Alamos	Randy Morgan	505-672-3486
Las Cruces	John Sarbo or Ron Childress	(915) 503-1246 (575) 522-1083
Silver City	David Schwantes or Walt Hanson	(575) 388-2331 (575) 388-1817

In Memory of**Andrew Antonio****Richard Farrell****Robert Holzapfel****Janet, wife of
Paul Tafoya****With deep sympathy
and regret, we list
these names**

Robert Holzapfel was an active and generous member of our organization, The Prostate Cancer Support Association of New Mexico. We are saddened to hear that he has lost his battle with the disease. While with us, we appreciated his activity in the organization and his sharing of his diagnoses with our members and his efforts to combat the cancer. He showed intelligence and the desire to learn as much as he could about the treatments for his disease to be an active participant in his treatments. He was invited to join our Board of Directors but was unable to do so, due the advancement of his cancer. We will miss his upbeat attitude as we continue to help others.

PCSANM Lifeline

A quarterly newsletter addressing issues of prostate cancer

Months Published

January April

July October

PUBLISHER**The Prostate Cancer Support****Association of New Mexico, Inc.**

2533 Virginia St NE, Suite C

Albuquerque, NM 87110

(505) 254-7784

(505) 254-7786 Fax

In New Mexico, Call Toll Free

(800) 278-7678

Office open only Mondays and Thursdays, 10 am-2 pm;**or by appointment****Phone and email checked daily by Board Members****E-MAIL**pchelp@pcsanm.org**VISIT OUR WEB SITES**<http://www.pcsanm.org>[www.Facebook.com/
ProstateCancerSupportNM](http://www.Facebook.com/ProstateCancerSupportNM)Twitter [#ProstateSupportNM](#)**LENDING LIBRARY**
Free and Open to all**EDITOR/WEBMASTER/
FACEBOOK**
Jerry Cross**MEETINGS** Lou Reimer**DISCLAIMER**

The PCSA of New Mexico gives education, information and support, not medical advice. Please contact your physician for all your medical concerns.

Dr. Lindberg's Take

ASCO, GU, and AUA Information



The eleventh annual meeting of these organizations that represent medical oncology, radiation oncology, and urologists who deal with treatment for prostate cancer. I have attended all eleven meetings. No "Miracles" or Blockbuster news, but lots of information incorporating new advances into everyday practice of medicine.

A number of clinical trials prove that men who have advanced or metastatic prostate cancer and who have not received hormone therapy recently, adding chemotherapy immediately; Ex: Taxotere for several weeks times several cycles; and continuing hormones throughout and indefinitely clearly helps men live longer and live WELL. There are side effects that decrease with time. I previously believed I could delay chemo while I watched how a man responded to hormones alone, BUT listening to real experts in prostate cancer, they said do not wait. If a man is very old, say 85 or has bad heart or kidneys or severe lung disease, I would probably not add the chemotherapy. I use a slightly different chemo program but one that seems very effective.

In a major address to the 3000 plus people in attendance, Dr. Maha Hussain (from University of Michigan Health Center) discussed "What is the progress in treatment of hormone naive prostate cancer?" Of course she discussed the above information, but one of the most interesting points to me was the concept of combined therapy, i.e. blocking testosterone with a drug like Lupron plus blocking the action of male hormones made by the adrenal gland. Studies done back in the 1990s gave conflicting results. The studies were done in men who had advanced cancer with many bone metastasis, already probably had resistance to hormone therapy. Many urologists and medical oncologist are convinced that a man with prostate cancer should be started on Lupron alone, no benefit to adding bicalutamide! Dr. Hussain thinks this should be restudied using Zytiga or enzalutamide as a second drug. In my practice, following Bob Leibowitz, I get excellent response to hormone therapy using 3 bicalutamide 150mg + Avodart or finasteride as my first treatment. Those who argue for Lupron alone are taking data from men with very far advanced cancer, applying it to men in a much different situation. MY ADVICE, do NOT use Lupron (or Eligard or Trelstar) alone.

Finally, Memorial Sloan Kettering Hospital has issued suggested guidelines for PSA testing. These are available at their website. <https://www.mskcc.org/cancer-care/types/prostate/screening/screening-guidelines-prostate> I continue to recommend testing PSA, and if a family history, start at age 40. A PSA over 3.0 is very abnormal and one should consult a urologist and consider a biopsy. PSA higher than 2.0 is abnormal, 1.0 to 2.0 definitely do further testing maybe in 6 months and at one and two years. Under 1.0 is normal. I continue to test beyond age 75 in healthy men. Remember no sex the night before the test, and also not for the previous 6 months. I put this in just to see if you are still reading my letter. Hope this letter is helpful. Dr. Peter Lindberg, humble country oncologist.

All of Dr. Lindberg's Lifeline articles from 2007 and later are now posted on our website.

Dr. Lindberg is on medical leave.

Prostate-Specific Antigen (PSA) Test (Fact Sheet)

From OncologyNurseAdvisor.com
Feb 4, 2016

What is the PSA test?

Prostate-specific antigen, or PSA, is a protein produced by cells of the prostate gland. The PSA test measures the level of PSA in a man's blood. For this test, a blood sample is sent to a laboratory for analysis. The results are usually reported as nanograms of PSA per milliliter (ng/mL) of blood.

The blood level of PSA is often elevated in men with prostate cancer, and the PSA test was originally approved by the FDA in 1986 to monitor the progression of prostate cancer in men who had already been diagnosed with the disease. In 1994, the FDA approved the use of the PSA test in conjunction with a digital rectal exam (DRE) to test asymptomatic men for prostate cancer. Men who report prostate symptoms often undergo PSA testing (along with a DRE) to help doctors determine the nature of the problem.

In addition to prostate cancer, a number of benign (not cancerous) conditions can cause a man's PSA level to rise. The most frequent benign prostate conditions that cause an elevation in PSA level are prostatitis (inflammation of the prostate) and benign prostatic hyperplasia (BPH) (enlargement of the prostate). There is no evidence that prostatitis or BPH leads to prostate cancer, but it is possible for a man to have one or both of these conditions and to develop prostate cancer as well.

Is the PSA test recommended for prostate cancer screening?

Until recently, many doctors and professional organizations encouraged yearly PSA screening for men beginning at age 50. Some organizations recommended that men who are at higher risk of prostate cancer, including African American men and men whose father or brother had prostate cancer, begin screening at age 40 or 45. However, as more has been learned about both the benefits and harms of prostate cancer screening, a number of organizations have begun to caution against routine population screening. Although some organizations continue to recommend PSA screening, there is widespread agreement that any man who is considering getting tested should first be informed in detail about the potential harms and benefits.

Currently, Medicare provides coverage for an annual PSA test for all Medicare-eligible men age 50 and older. Many private insurers cover PSA screening as well.

What is a normal PSA test result?

There is no specific normal or abnormal level of PSA in the blood. In the past, most doctors considered PSA levels of 4.0 ng/mL and lower as normal. Therefore, if a man had a PSA level above 4.0 ng/mL, doctors

recommend a prostate biopsy to determine whether prostate cancer was present.

However, more recent studies have shown that some men with PSA levels below 4.0 ng/mL have prostate cancer and that many men with higher levels do not have prostate cancer (1). In addition, various factors can cause a man's PSA level to fluctuate. For example, a man's PSA level often rises if he has prostatitis or a urinary tract infection. Prostate biopsies and prostate surgery also increase PSA level. Conversely, some drugs—including finasteride and dutasteride, which are used to treat BPH—lower a man's PSA level. PSA level may also vary somewhat across testing laboratories. Another complicating factor is that studies to establish the normal range of PSA levels have been conducted primarily in populations of white men. Although expert opinions vary, there is no clear consensus regarding the optimal PSA threshold for recommending a prostate biopsy for men of any racial or ethnic group.

In general, however, the higher a man's PSA level, the more likely it is that he has prostate cancer. Moreover, continuous rise in a man's PSA level over time may also be a sign of prostate cancer.

What if a screening test shows an elevated PSA level?

If a man who has no symptoms of prostate cancer chooses to undergo prostate cancer screening and is found to have an elevated PSA level, the doctor may recommend another PSA test to confirm the original finding. If the PSA level is still high, the doctor may recommend that the man continue with PSA tests and DREs at regular intervals to watch for any changes over time.

If a man's PSA level continues to rise or if a suspicious lump is detected during a DRE, the doctor may recommend additional tests to determine the nature of the problem. A urine test may be recommended to check for a urinary tract infection. The doctor may also recommend imaging tests, such as a transrectal ultrasound, x-rays, or cystoscopy.

If prostate cancer is suspected, the doctor will recommend a prostate biopsy. During this procedure, multiple samples of prostate tissue are collected by inserting hollow needles into the prostate and then withdrawing them. Most often, the needles are inserted through the wall of the rectum (transrectal biopsy); however, the needles may also be inserted through the skin between the scrotum and the anus (transperineal biopsy). A pathologist then examines the collected tissue under a microscope. The doctor may use ultrasound to view the prostate during the biopsy, but ultrasound cannot be used alone to diagnose prostate cancer.

What are some of the limitations and potential harms of the PSA test for prostate cancer screening?

Continued on page 5

Detecting prostate cancer early may not reduce the chance of dying from prostate cancer. When used in screening, the PSA test can help detect small tumors that do not cause symptoms. Finding a small tumor, however, may not necessarily reduce a man's chance of dying from prostate cancer. Some tumors found through PSA testing grow so slowly that they are unlikely to threaten a man's life. Detecting tumors that are not life threatening is called "overdiagnosis," and treating these tumors is called "overtreatment." Overtreatment exposes men unnecessarily to the potential complications and harmful side effects of treatments for early prostate cancer, including surgery and radiation therapy. The side effects of these treatments include urinary incontinence (inability to control urine flow), problems with bowel function, erectile dysfunction (loss of erections, or having erections that are inadequate for sexual intercourse), and infection. In addition, finding cancer early may not help a man who has a fast-growing or aggressive tumor that may have spread to other parts of the body before being detected.

The PSA test may give false-positive or false-negative results. A false-positive test result occurs when a man's PSA level is elevated but no cancer is actually present. A false-positive test result may create anxiety for a man and his family and lead to additional medical procedures, such as a prostate biopsy, that can be harmful. Possible side effects of biopsies include serious infections, pain, and bleeding.

Most men with an elevated PSA level turn out not to have prostate cancer; only about 25 percent of men who have a prostate biopsy due to an elevated PSA level actually have prostate cancer (2). A false-negative test result occurs when a man's PSA level is low even though he actually has prostate cancer. False-negative test results may give a man, his family, and his doctor false assurance that he does not have cancer, when he may in fact have a cancer that requires treatment.

What research has been done to study prostate cancer screening?

Several randomized trials of prostate cancer screening have been carried out. One of the largest is the Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial, which NCI conducted to determine whether certain screening tests can help reduce the numbers of deaths from several common cancers. In the prostate portion of the trial, the PSA test and DRE were evaluated for their ability to decrease a man's chances of dying from prostate cancer.

The PLCO investigators found that men who underwent annual prostate cancer screening had a higher incidence of prostate cancer than men in the control group but the same rate of deaths from the disease (3).

Overall, the results suggest that many men were treated for prostate cancers that would not have been detected in their lifetime without screening. Consequently, these men were exposed unnecessarily to the potential harms of treatment.

How is the PSA test used in men who have been treated for prostate cancer?

The PSA test is used to monitor patients who have a history of prostate cancer to see if their cancer has recurred (come back). If a man's PSA level begins to rise after prostate cancer treatment, it may be the first sign of a recurrence. Such a "biochemical relapse" typically appears months or years before other clinical signs and symptoms of prostate cancer recurrence.

However, a single elevated PSA measurement in a patient who has a history of prostate cancer does not always mean that the cancer has come back. A man who has been treated for prostate cancer should discuss an elevated PSA level with his doctor. The doctor may recommend repeating the PSA test or performing other tests to check for evidence of a recurrence. The doctor may look for a trend of rising PSA level over time rather than a single elevated PSA level.

What does an increase in PSA level mean for a man who has been treated for prostate cancer?

If a man's PSA level rises after prostate cancer treatment, his doctor will consider a number of factors before recommending further treatment. Additional treatment based on a single PSA test is not recommended. Instead, a rising trend in PSA level over time in combination with other findings, such as an abnormal result on imaging tests, may lead a man's doctor to recommend further treatment.

How are researchers trying to improve the PSA test?

Scientists are investigating ways to improve the PSA test to give doctors the ability to better distinguish cancerous from benign conditions and slow-growing cancers from fast-growing, potentially lethal cancers. Some of the methods being studied include:

- **Free versus total PSA.** The amount of PSA in the blood that is "free" (not bound to other proteins) divided by the total amount of PSA (free plus bound). Some evidence suggests that a lower proportion of free PSA may be associated with more aggressive cancer.

- **PSA density of the transition zone.** The blood level of PSA divided by the volume of the transition zone of the prostate. The transition zone is the interior part of the prostate that surrounds the urethra. Some evidence suggests that this measure may be more accurate at detecting prostate cancer than the standard PSA test.

Continued on page 6

Financial Support for this newsletter edition provided by:

**The Cancer Center
PRESBYTERIAN**

Phone 505-559-6100

- **Age-specific PSA reference ranges.** Because a man's PSA level tends to increase with age, it has been suggested that the use of age-specific PSA reference ranges may increase the accuracy of PSA tests. However, age-specific reference ranges have not been generally favored because their use may delay the detection of prostate cancer in many men.

- **PSA velocity and PSA doubling time.** PSA velocity is the rate of change in a man's PSA level over time, expressed as ng/mL per year. PSA doubling time is the period of time over which a man's PSA level doubles. Some evidence suggests that the rate of increase in a man's PSA level may be helpful in predicting whether he has prostate cancer.

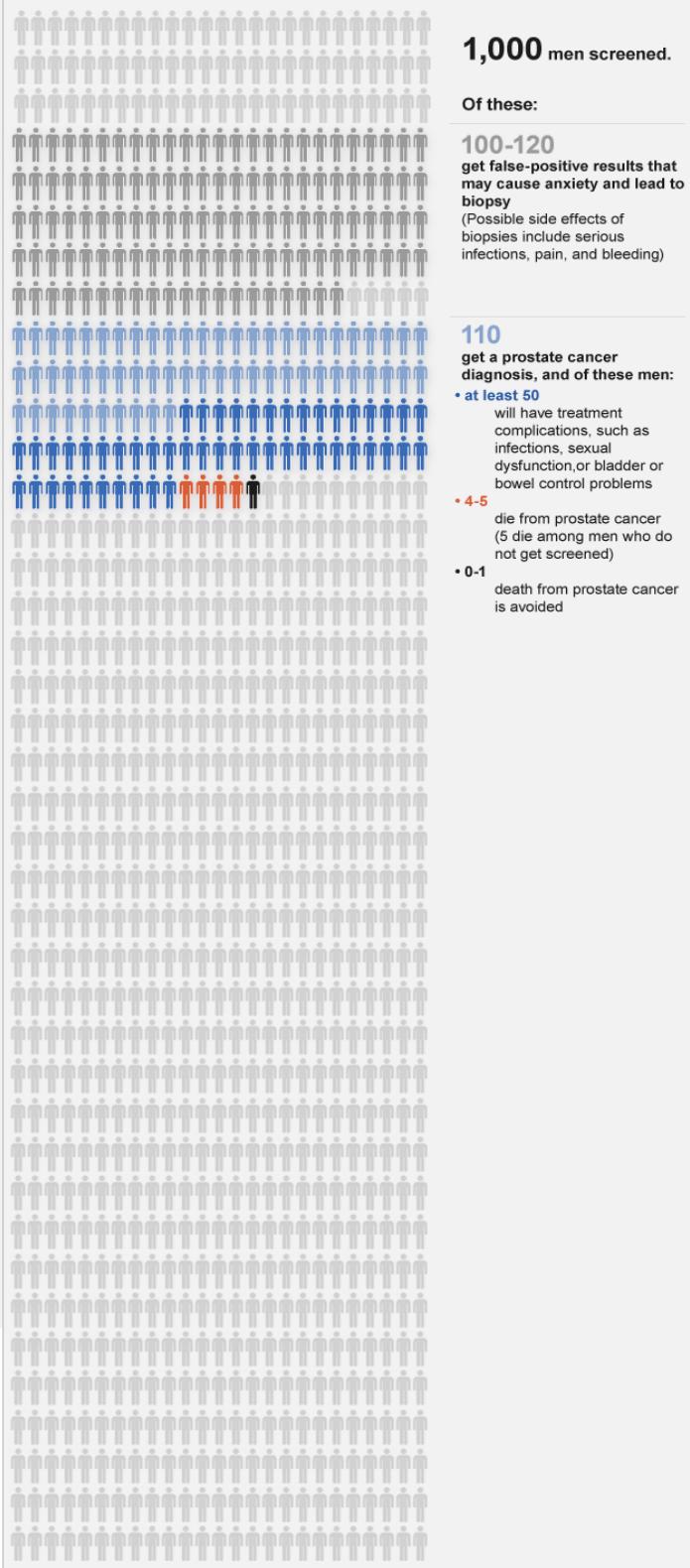
- **Pro-PSA.** Pro-PSA refers to several different inactive precursors of PSA. There is some evidence that pro-PSA is more strongly associated with prostate cancer than with BPH. One recently approved test combines measurement of a form of pro-PSA called [-2]proPSA with measurements of PSA and free PSA. The resulting "prostate health index" can be used to help a man with a PSA level of between 4 and 10 ng/mL decide whether he should have a biopsy.

Selected References

- Thompson IM, Pauker DK, Goodman PJ, et al. Prevalence of prostate cancer among men with a prostate-specific antigen level < or =4.0 ng per milliliter. *New England Journal of Medicine* 2004;350(22):2239-2246. [\[PubMed Abstract\]](#)
- Barry MJ. Clinical practice. Prostate-specific-antigen testing for early diagnosis of prostate cancer. *New England Journal of Medicine* 2001;344(18):1373-1377. [\[PubMed Abstract\]](#)
- Andriole GL, Crawford ED, Grubb RL, et al. Prostate cancer screening in the randomized Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial: mortality results after 13 years of follow-up. *Journal of the National Cancer Institute* 2012;104(2):125-132. [\[PubMed Abstract\]](#)
- Schröder FH, Hugosson J, Roobol MJ, et al. Prostate-cancer mortality at 11 years of follow-up. *New England Journal of Medicine* 2012;366(11):981-990. [\[PubMed Abstract\]](#)
- Moyer VA on behalf of the U.S. Preventive Services Task Force. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. *Annals of Internal Medicine* 2012; 157(2):120-134. [\[PubMed Abstract\]](#)

**From NIH
National Cancer Institute
www.cancer.gov**

1,000 men aged 55 to 69 screened every 1 to 4 years for 10 years with a PSA test



Source:
U.S. Preventive Services Task Force Recommendation Statement, *Annals of Internal Medicine*, 2012.

Tests for Prostate Cancer

From Cancer Cure Foundation

<http://www.cancure.org/12-links-page/62-laboratory-tests-that-detect-cancer>

The Digital Rectal Exam (DRE) The Digital Rectal Exam (DRE) The Digital Rectal Exam (DRE) checks the prostate gland for any bumps or abnormalities, but it only checks the back of the prostate, so again, it must be used with other tests.

PSA - Prostate Specific Antigen PSA - Prostate Specific Antigen may help detect prostate cancer early. PSA (prostate specific antigen) is a substance made only by the prostate. An elevated level may indicate cancer before the tumor is large enough to raise a bump that a doctor can feel during a check-up. But the test is problematic: Having a high PSA does not necessarily mean you do have cancer. Other factors can elevate PSA, such as an enlarged prostate (benign prostatic hyperplasia), mechanical pressure on the prostate (such as during a rectal exam), or inflammation of the prostate (prostatitis). Since there are some false results, it is recommended that you get a more accurate picture of what's going on by using other tests in conjunction with it - for example you could use the DR-70 test, a digital exam and an ultrasound of the prostate, along with the PSA blood test. You can also look into the Free PSA test or PSA density test.

Beckman Coulter's Hybritech free PSA (fPSA) test, is able to more accurately distinguish cancer from benign prostatic conditions. A report to this effect was published in the August 2000 issue of the journal Urology. The test has now been approved by the Food and Drug Administration (FDA) for clinical use. According to William J. Catalona, MD of the Division of Urologic Surgery at Washington University School of Medicine, Free PSA is the best available way to improve the accuracy of total PSA tests. Free PSA ratios can provide the bonus of telling patients and physicians how aggressive the cancer is. Free PSA is measurable through a simple blood test.

Another innovative kind of PSA test is the "PSA density test." This has up to a 95 percent cancer detection rate. But it requires the use of ultrasound, which is more invasive and costly.

Telomerase Test is being developed to test for an enzyme or simple protein called telomerase, that is active when cancer arises. A drop of prostate fluid is collected from the tip of the penis and analyzed. More information to follow as we research this test.

PSA Testing Declining Faster with Primary Care Physicians Than Urologists

By David Levitan Published: Cancer Network.com February 10, 2016

The 2012 change in guidelines regarding prostate-specific antigen (PSA) testing for prostate cancer had a different effect on testing rates depending on which physician specialty was doing the testing, according to a new study. Primary care physicians showed a marked decline in PSA tests administered, while urologists had only a slight drop in testing.

The use of PSA testing was and remains controversial. In May 2012 the US Preventive Services Task Force (USPSTF) recommended against the test to detect prostate cancer in men, writing that "there is moderate certainty that the benefits of PSA-based screening for prostate cancer do not outweigh the harms."

The new study, led by Michael E. Zavaski, MD, of Brigham and Women's Hospital in Boston, compared PSA testing rates based on the National Ambulatory Medical Care Survey in 2010 and 2012. They included a total of 1,222 physician visits, including 113 to urologists and 1,109 to primary care physicians (PCPs). These visits (after exclusions for men with a diagnosis of prostate cancer or other prostate disorders) were weighted to reflect the US population, yielding a weighted sample of 27 million total visits of which 800,000 were to a urologist. The results of the survey were published online ahead of print in *JAMA Internal Medicine*.

Among the PCP visits, the use of PSA testing declined from 36.5% in 2010 to 16.4% in 2012, for an odds ratio of 0.43 (95% CI, 0.23–0.81; P = .009). In contrast, the rate decreased among urologists from 38.7% only to 34.5%, for an odds ratio of 0.34 (95% CI, 0.10–1.20; P = .09). The authors noted that the difference between physician-specific testing practices was significantly significant (P < .001).

The difference in this decline, they wrote, "likely reflect opposing perceptions among physicians on the benefit of PSA screening," as well as conflicting guidelines. For example, the American Urological Association recommends "shared decision-making" for men aged 55 to 69 years.

In an accompanying editor's note, David S. Aaronson, MD, and Rita F. Redberg, MD, respectively of Kaiser Permanente and the University of California, San Francisco, wrote that "urologists may hold this belief because they have referred more men who request PSA testing or because they have seen more poor outcomes from metastatic prostate cancer."

They noted that recommendations to reduce PSA screening will strengthen with the release of a National Committee for Quality Assurance measure aimed at eliminating PSA tests in men over 70 years of age. Meanwhile, the widespread use of the PSA test should serve as a cautionary tale of the importance of first establishing that benefit exceeds harms before recommending new cancer screening tests," they wrote.

Learn to prevent and control side effects

[http://www.patientresource.com/
Nausea and Vomiting.aspx?](http://www.patientresource.com/Nausea_and_Vomiting.aspx?)

Nausea and vomiting are different from each other, but they are often experienced together. Nausea is an unpleasant sensation of feeling the need to vomit, or throw up, and is often described as "sick to my stomach" or "queasy." Vomiting occurs when the stomach muscles contract and push the stomach contents up through the mouth.

Nausea and vomiting are among the most often feared cancer treatment-related symptoms. Although nausea and vomiting occur in most people receiving cancer treatment, people are affected in different ways, with some people having no or only mild nausea and vomiting, and others experiencing more severe symptoms. Recent advances have led to the development of new drugs to prevent and control nausea and vomiting. These drugs are known as antiemetics.

Nausea and vomiting are unpleasant, usually cause distress (for the person with cancer as well as family members), and can limit activities. These side effects can also worsen other symptoms, such as pain, insomnia, cognitive dysfunction, fatigue and anorexia. If vomiting is not controlled and becomes severe, it can lead to dehydration, a lack of essential fluids and minerals in your body. Most importantly, severe nausea and vomiting can interrupt your cancer treatment plan. Thus, it is important to control these two symptoms.

Why do nausea and vomiting occur?

Nausea and vomiting occur as the result of a series of reactions between your stomach and your brain. These reactions start when chemotherapy or radiation damages the cells lining the inside of the stomach. The cells send signals to a vomiting center in your brain, which then sends signals to trigger nausea and vomiting. Chemotherapy may also trigger the vomiting center directly.

Who is most likely to be affected by nausea and vomiting?

Chemotherapy drugs are the most common cause of nausea and vomiting, and some drugs are more likely than others to cause these symptoms. Chemotherapy drugs have been classified according to the likelihood of causing nausea and vomiting. Drugs that cause nausea and vomiting in more than 90 percent of people are classified as having a high likelihood; drugs that cause these symptoms in 30 to 90 percent of people are classified as having a moderate likelihood (Table 1). It is important to note that these likelihoods were estimated among people who did not receive treatment to prevent nausea and vomiting. The dose used, how often the drug is given, and how the drug is given (intravenously or orally) are factors in the likelihood of nausea and vomiting occurring.

Radiation therapy can also cause nausea and vomiting, and people who receive whole-body radiation or radiation to the upper abdominal area are the most likely to be affected.

The likelihood of nausea and vomiting depends on which tissues are being radiated and the dose schedule of the radiation treatment. Nausea and vomiting are also side effects of many medications, especially strong pain medications, such as opioids. There are individual differences that affect the likelihood of having nausea and vomiting. These side effects are more likely to occur in women, people younger than 50, people who are anxious, and people who have had motion sickness.

When do nausea and vomiting occur?

Nausea and vomiting related to chemotherapy are described as either acute or delayed depending on when they first occur (Table 2). Nausea and vomiting may also be described as anticipatory; this type of nausea and vomiting occurs before a dose of chemotherapy is given and usually happens in people who have had severe nausea and vomiting during a previous experience with chemotherapy.

Nausea and vomiting related to opioids usually occurs within a few hours of a dose. Over time (usually three to seven days), a person can develop tolerance to an opioid, which means that the drug will no longer cause nausea and vomiting.

Table Timing of nausea and vomiting related to chemotherapy

Type of nausea and vomiting	Time of first occurrence	Time of worst vomiting	Time of resolution
Acute	Few minutes to hours after the drug is given	Five to six hours	Within 24 hours
Delayed*	More than 24 hours after drug is given	48 to 72 hours	Three to even days

How are nausea and vomiting managed?

Prevention is the key to managing nausea and vomiting, as these symptoms are easier to prevent than to control once they have started. The list of available antiemetic drugs has grown over the past few years (Table 3). Some are best for mild nausea and vomiting, and others are appropriate for more severe nausea and vomiting; some are effective for acute symptoms and others for delayed symptoms. Most antiemetic drugs can be given as either a pill or an intravenous injection. While both forms are equally effective, intravenous antiemetic drugs usually act more quickly. **Continued on page 9**

Your doctor will prescribe antiemetic drugs on the basis of the chemotherapy drug or drugs you will receive. Because some of these drugs work in different ways, a combination of drugs is often the best approach, especially for people who are to receive a chemotherapy drug that has a high likelihood of causing nausea and vomiting. In these situations, antiemetic drugs are prescribed to be taken before chemotherapy starts and at specific intervals after treatment for as long as the risk of vomiting is expected. For example, an antiemetic drug is prescribed to be taken for 24 hours if the chemotherapy drug is associated with acute nausea and vomiting and for three to seven days if the drug is associated with delayed nausea and vomiting. For antiemetic drugs to be effective, it is important that they are taken "around the clock" at the prescribed intervals and not on an "as needed" basis.

Prevention of nausea and vomiting related to radiation therapy follows a similar approach. If you are to have total body radiation or radiation to the upper abdominal area, your doctor will prescribe an antiemetic drug to be taken before your scheduled treatment and for a period of time after treatment. Because nausea and vomiting are not as common after the use of opioids as after chemotherapy or radiation therapy, antiemetic drugs are usually prescribed once nausea and vomiting have occurred. It is important to let your doctor or nurse know if you are still experiencing nausea and vomiting even after taking the drug as prescribed. This type of nausea and vomiting is known as breakthrough, and you may need a different antiemetic drug or an increased dose in order to control these symptoms.

To help further protect yourself from nausea and vomiting, you may want to supplement your antiemetic treatment with some non-drug approaches. Some people have been helped by such strategies as progressive muscle relaxation, biofeedback, guided imagery, self-hypnosis and acupuncture. Some changes to your eating habits may also be helpful:

- Eat several small meals throughout the day rather than three big meals.
- Try eating a light meal a few hours before your scheduled treatment.
- Drink plenty of fluids in small amounts throughout the day.
- Avoid unpleasant odors, as they can trigger nausea.

Rest after eating, but don't lie flat.

Drugs to prevent and control nausea and vomiting Table 3

aprepitant, fosaprepitant (Emend)
dexamethasone (Maxidex, Ozurdex)
dolasetron (Anzemet)
dronabinol (Marinol)
gransetron (Sancuso)
haloperidol (Haldol)
lorazepam (Ativan)
metoclopramide (Metozolv, Reglan)
nabilone (Cesamet)
olanzapine (Zyprexa)
ondansetron (Zofran, Zuplenz)
palonosetron (Aloxi)
prochlorperazine (Compro, Procomp)
promethazine (Promethegan)

When should I talk to my doctor?

You should talk to your doctor before treatment about the potential for your planned treatment to cause nausea and vomiting. Ask your doctor what he or she can do to prevent nausea and vomiting. During your treatment, be sure to call your doctor's office if you experience nausea and vomiting even though you are taking the antiemetic drug as prescribed.

Call your doctor immediately if you:

- Have more than three episodes of vomiting per hour for at least three hours
- Notice blood in the material vomited
- Notice a coffee grounds appearance of the material vomited
- Are unable to take more than four cups of fluid or ice chips in 24 hours or are unable to take any solid foods for more than two days
- Cannot keep your medications down
- Become weak or dizzy

A 28 page support guide on managing side effects can be downloaded at [http://patientresource.com/userfiles/file/Supportive Care 2014.pdf](http://patientresource.com/userfiles/file/Supportive%20Care%202014.pdf)

Continued on page 10

Continued Managing side effects from page 7

Table 2. Chemotherapy drugs with high and moderate risks of causing nausea and vomiting when no anti-emetic drug is given.

Drug name	High risk	Moderate risk
aldesleukin		high doses
altretamine (Hexalen)	X	
amifostine (Ethyol)		high doses
arsenic trioxide (Trisenox)		X
azacitidine (Vidaza)		X
busulfan		X
carboplatin (Paraplatin)		X
carmustine (BCNU)	high doses	lower doses
cisplatin (Platinol)	moderate to high doses	lower doses
cyclophosphamide (Cytoxan)	high doses	lower doses
cytarabine (Cytosar, Ara-C)		high doses
dacarbazine (DTIC)	X	
dactinomycin (Cosmegen)		X
daunorubicin (Daunomycin)		X
doxorubicin (Adriamycin)	X	lower doses
epirubicin (Ellence)	high doses	lower doses
idarubicin (Idamycin)		X
ifosfamide (Ifex)	X	lower doses
imatinib (Gleevec), oral		X
interleukin (Adesleukin)		X
irinotecan (Camptosar)		X
lomustine (CeeNU)		X
melphalan (Alkeran)		
methotrexate (Trexall)		high doses
oxaliplatin (Eloxatin)		X
procarbazine, oral	X	
streptozocin (Zanosar)	X	
temozolomide (Temodar), oral		X

Drugs with high risk cause nausea and vomiting in more than 90 percent of people treated when no antiemetic is given; drugs with moderate risk cause nausea and vomiting in 30 to 90 percent of people when no antiemetic is given.

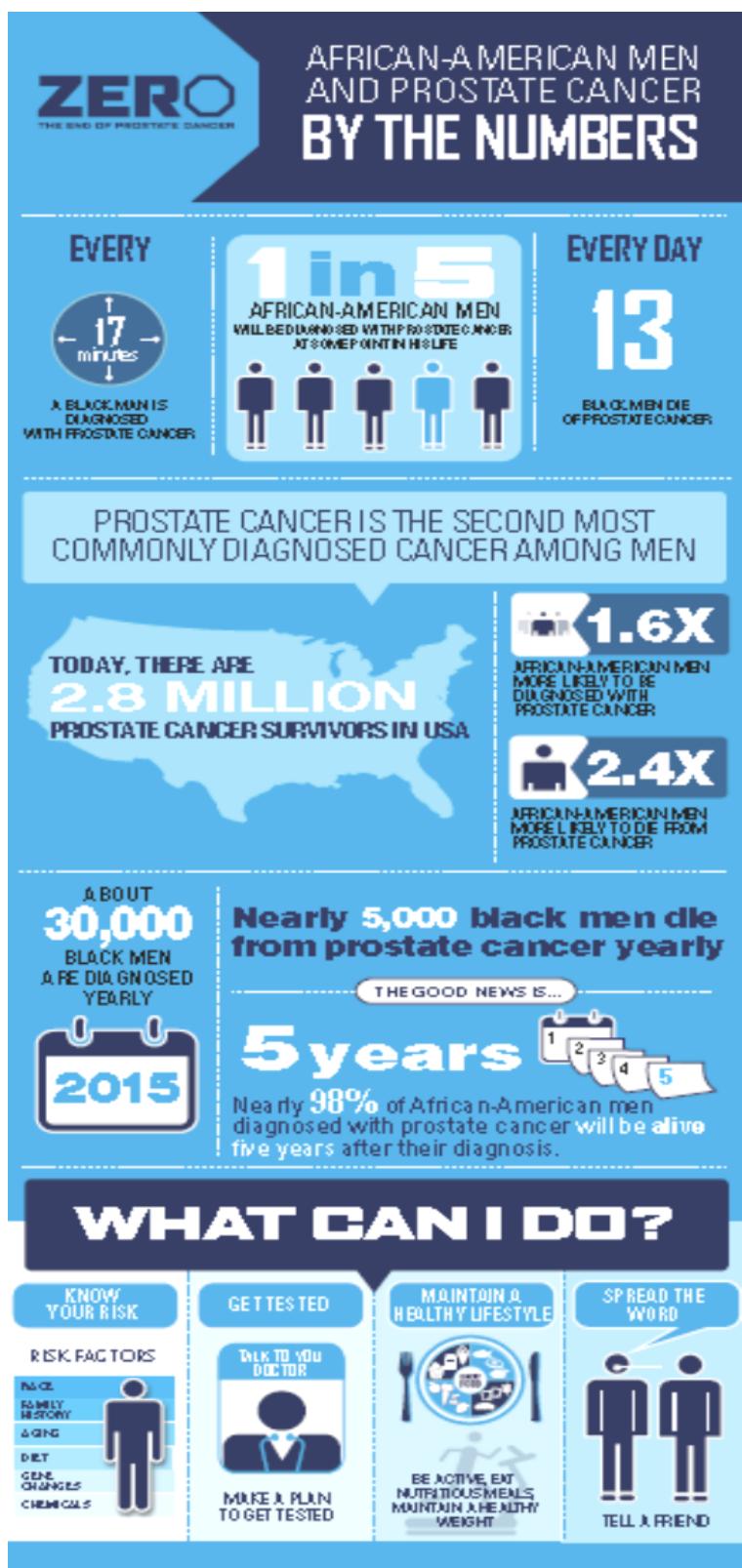
Additional Resources

American Cancer Society *Nausea and Vomiting*

American Society of Clinical Oncology (patient website) *What to Know: ASCO's Guideline on Preventing Nausea and Vomiting Caused by Cancer Treatment*

National Cancer Institute *Nausea and Vomiting (PDQ®)*

African American men have a much higher risk of developing prostate cancer, and earlier; and when they do, it is usually more advanced. This chart lays out risks for them. We have a very low representation rate of African Americans in PCSANM. We really need to get the word out.



HIFU Prostate Services Partners with Pacific Coast Urology to make HIFU for Prostate Cancer Available in Greater Los Angeles Area

February 15, 2016 PRNewswire

Robert Pugach, MD leads effort to offer men a completely non-invasive treatment for prostate cancer and will treat the first Sonablate HIFU patients in Los Alamitos, California

HIFU Prostate Services, LLC, a leading provider of minimally-invasive prostate cancer treatment using **high intensity focused ultrasound** ("HIFU"), announces that Sonablate HIFU is now available in southern California through a partnership established with Western States HIFU and Pacific Coast Urology and one of the most experienced HIFU physicians in the world, Robert Pugach, MD.

Dr. Pugach has one of the largest prostate cancer practices in the United States and routinely treats patients from all areas of the country. He also has a large international patient base, treating patients from many countries including France, Italy, Brazil, Australia and Africa.

This month, Dr. Pugach will treat five prostate cancer patients with Sonablate HIFU. George, a 67-year-old Bellflower resident, will be one of the first patients treated with HIFU at the Los Alamitos Surgical Center. "I decided to have HIFU because I understand it's the best procedure and Dr. Pugach already 'fixed' my friend, John, a few months ago," said George. "He's doing great and I look forward to the same experience."

Dr. Pugach will proctor two additional cases as he trains a physician. He serves as medical director of the partnership offering the minimally invasive prostate cancer treatment to qualifying patients as well as offering training and proctorship to physicians.

Initially Pugach will offer HIFU treatment and training with the Sonablate in Los Alamitos, Calif. at the Los Alamitos Surgery Center. Renowned for its expert clinical staff, the anesthesiologists, nurses and technicians at the center pride themselves on providing personalized, expert care.

"We have an excellent location to serve the patients we see at our Los Alamitos, Beverly Hills and Huntington Beach offices. We will be the premier treatment center for patients in greater Los Angeles, Orange County and all of southern California as well as those travelling from other states," said Pugach. "I am excited to be the lead teacher of other urologists who will be treating patients at our center and will personally proctor them so they can achieve the excellent results I have seen in the 10 years I have been performing this remarkable procedure."

"While I have performed thousands of surgical procedures for prostate disease, and I am the most experienced practitioner for cryoablation (prostate freezing) for prostate cancer in the western United States, HIFU opens a new chapter for prostate cancer treatment in the United States. Now, we join dozens of other countries throughout the world to offer a treatment that can cure cancer while minimizing or eliminating common side effects of surgery such as incontinence and erectile dysfunction," continued Pugach.

"We are proud to announce the opening of our fourth Sonablate HIFU Center of Excellence with Dr. Pugach. His personal experience and expertise with Sonablate HIFU is unparalleled. As an established leader in minimally invasive therapies, we are confident he will attract prostate cancer patients from all over the country who wish to explore HIFU as a treatment option," said John W. Linn, chief executive officer, HIFU Prostate Services.

HIFU offers patients a minimally-invasive, outpatient, prostate cancer treatment option that has been seen to be as effective as surgery and radiation with fewer side effects such as impotence and incontinence. HIFU is a radiation-free, outpatient procedure that is designed as a one-time treatment, but can be repeated if needed and does not preclude any future therapy such as surgery or radiation.

About HIFU Prostate Services, LLC

At HIFU Prostate Services (HPS), our mission is to partner with physicians to deliver the highest quality of care, support and technology to the patient and to the urology community for the treatment of localized prostate cancer using high intensity focused ultrasound (HIFU). HPS was founded in 2015 by a seasoned management team with over 50 years of experience in the healthcare industry and over 30 years focused on HIFU technologies. The company is headquartered in Charlotte, NC and has established partnerships with physicians and urology practices throughout the country. For additional information, visit <http://www.hifuprostateservices.com>

About Robert Pugach, MD

Dr. Robert Pugach is one of the most experienced HIFU practitioners in the U.S. and one of only a few certified HIFU teachers and proctors. He first trained with Sonablate® HIFU in 2006 and since then has treated or been involved with approximately 400 HIFU cases. Pugach is the medical director of Pacific Coast Urology Medical Center, the first urology practice centered on minimally invasive treatments of urological conditions. It continues to be at the forefront of new, innovative technologies like high intensity focused ultrasound (HIFU). Pugach is also active in many medical executive capacities, including his position as a member of the Board of Trustees of the California Medical Association, a member of the Medical Executive Committee of the Los Alamitos Surgery Center and an active member of the American Association of Clinical Urologists (AACU). He served as the President and Chief Executive Officer of Community Hospital of Long Beach and led the effort to re-open this valuable neighborhood hospital. He was also honored as an educator with a lifetime membership in the Harvard Men's Health Forum. Lastly, Pugach received a Bachelor of Science Degree from New York University. Upon completing his medical studies at the College of Medicine and Dentistry of New Jersey, he went to New York University-Booth Memorial Medical Center where he completed a general surgery residency. He completed his urology training at the Albert Einstein College of Medicine-Montefiore Medical Center in New York.

PCSANM *Lifeline* Newsletter

April 2016

Prostate Cancer Support Association
of New Mexico, Inc.
2533 Virginia St. NE, Suite C
Albuquerque, NM 87110

NON-PROFIT
ORGANIZATION
US Postage
PAID
Albuquerque, NM
Permit #856

RETURN
SERVICE
REQUESTED

Chairman's Message, April 2016

As I sit at my computer to compose this edition of the April Chairman's Corner I am looking out at the Sandia's with a dusting of snow from my home in Rio Rancho on a sunny, cool winter morning, I am musing that it is great to be alive and living in New Mexico. I am grateful that the Albuquerque area has the medical facilities we can access to keep our health up and the knowledgeable doctors we have to treat all our ailments, and, of course, especially prostate cancer. PCSA is an organization dedicated to educating the patient and the public about prostate cancer and the facilities and doctors available.

This year is our the 25th Anniversary of providing information and guidance to the prostate cancer patient and information to the public. We were founded in December 1991 by Von Rae Shipp and about 5 other prostate cancer patients. For a couple of years the group met at Rae's home and conducted meetings over the kitchen table. At this time the internet (the greatest library in the world) was in its infancy and all information was transferred via hard copy and video tapes. These books and video tapes were the start of our library. In 1993 Rae established PCSA's first office and served about 250 members. The organization has grown and now we have about 750 members, a nice office in Albuquerque, we help the newly diagnosed, conduct meetings twice a month, produce this newsletter with prostate cancer information four times per year, a library with books and videos of interest to prostate cancer patients and hold an annual conference with experts making presentations on various aspects of prostate cancer for the patient and public.

Whew! That is a big order to be conducted by an all-volunteer organization. We have room for additional volunteer board members and for help at our various events. I want to see PCSA continue to be a viable organization and continue to provide the help the patient needs and to educate the public about this disease. Your volunteering and providing generous donations are needed to help with this effort. We especially would welcome your volunteering to join the Board and take a part in our efforts..

I wish all our members good health and well being.



Lou Reimer, Chairman of the Board