

### New Prostate Cancer Treatment Offers Precision (and Fewer Side Effects)

Using ultrasound waves, an individualized approach to treating prostate cancer might offer several big benefits. A Michigan Medicine urologist explains.

A new treatment option for some prostate cancer patients could radically change how doctors combat the disease — helping recipients bounce back faster and without side effects such as urinary incontinence and loss of erectile function.

Known as high-intensity focused ultrasound (HIFU), the technology deploys ultrasound waves via the rectum to target cancerous tissue.

That marks a shift from current prostate cancer treatment options in the United States: active surveillance to monitor for development of aggressive cancer or radiation therapy and prostatectomy (surgery that involves full removal of the prostate).

HIFU, by comparison, is “a middle

ground,” says Arvin George, M.D., an assistant professor of urology at Michigan Medicine.

“It’s a minimally invasive procedure that can provide cancer control and that can delay, potentially indefinitely, the need for surgery or radiation.”

Another upside: It’s precise.

Initially determined using an MRI-

*(Continued on page 2)*

#### Medical Advisors

Paul Daeninck M.D.  
Medical Oncologist

Darrel Drachenberg  
M.D. Urologist

Arbind Dubey M.D.  
Radiation Oncologist

*Thanks!*

*Next Meeting:*

**Wednesday, Apr. 18 ,2018**

**Speaker:** Dr. Vladimir Ruzhynsky M.D.; Ph.D. (urologist)

**Title:** *"Management of post-prostatectomy incontinence"*

**Location:** The First Unitarian Universalist Church of  
Winnipeg, 603 Wellington Crescent

**Time:** 7 – 9 pm.

(First hour for general discussion; second hour for expert guest speaker)

*Free Admission Everyone Welcome  
Plenty of free parking*



The Manitoba Prostate Cancer Support Group offers support to prostate cancer patients but does not recommend any particular treatment modalities, medications or physicians ; such decisions should be made in consultation with your doctor.

**MPCSG – active since 1992.**

Thought of The Day

*A clear conscience is usually the sign of a bad memory.*

(Continued from page 1)

guided biopsy, the targeted zone absorbs energy from the HIFU waves, converting it into heat. Bubbles form within cells during the two- to four-hour treatment and cause the cells to break up, thus destroying the cancerous tissue.

Patients feel little pain afterward and are monitored periodically to ensure the cancer hasn't returned.

Performed mostly in Europe, since the 1990s, the Food and Drug Administration approved HIFU for prostate ablation in 2015.

### What to know about high-intensity focused ultrasound

George, in his own words, spoke more about the technology and its potential:

**How it works:** The HIFU procedure essentially uses ultrasound waves directed to a specific area of the prostate. Focused on that point, it generates heat to destroy the affected tissue. Bubbles form and break up the affected tissue. Your body eventually absorbs the treated area and breaks it down.

**Who might be a candidate:** We don't

necessarily treat high-risk prostate cancer with HIFU. We usually look for patients with low- to intermediate-risk cancers. The goal is to avoid affecting the nerves that run just behind the prostate on the left and right side, so the ideal patient is someone whose cancer is not close to the nerves or other vital structures.

**Why it's effective:** It's very precise. You can plan your treatments around a very small area you want to treat. This is a lot more patient-specific. We can treat two groups: those with a very specific spot of cancer and those whose cancer is confined to one side. We can safely treat one-fourth or one-half or three-quarters of the prostate.

**How it affects quality of life:** Compared to major surgery or radiation, the side effects — risks of incontinence and losing erectile function — are much lower. HIFU allows men to avoid or live without such side effects for a period of time if they are ever to require whole gland treatment in the future.

**How patients recover:** Done under general anesthesia, this is a well-tolerated outpatient procedure. It doesn't require hormone therapy or radiation. Conventional treatments

result in a lot of downtime; radiation requires about 40 treatments. With surgery, you're out of work for a few weeks with potentially long-lasting side effects. Here, patients go home the same day.

**What it costs (Michigan):** HIFU costs about \$20,000 to \$30,000. Recently, a Medicare C-code was introduced that would cover facility costs in our region — which will likely decrease the out of pocket cost to the patient to anywhere from \$8,000 to \$11,000. As we get more available data, I think there's a stronger path for approval [in other regions]. You need to be able to prove the treatment is effective.

**What questions remain:** We don't yet have long-term data. It may not be as effective as surgery or radiation in the long term. However, some men don't need such invasive treatments. There is a risk — about 20 to 30 percent — that it can come back. But you can treat a patient again with focal therapy if needed, and you don't lose the option of doing surgery or radiation.

KEVIN JOY October 19, 2017

Source <https://healthblog.uofmhealth.org/cancer-care/new-prostate-cancer-treatment-offers-precision-and-fewer-side-effects>

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To: Readers of this newsletter

From: The Board of Directors of the Manitoba Prostate Cancer Support Group

Re: ***Your financial support is important***

The MPCSG works to provide support services without cost to the prostate cancer community in our province. While our work is carried out by volunteers, we incur unavoidable expenses and our bills must be paid. Financial support comes from several sources, including individual patients and their friends and family. *These individual donations constitute an important component of our revenues. Please help by making a tax deductible donation. Every bit helps.*

To donate, simply use the donation form on the back page of this newsletter and mail it in with your check. Easier yet, you can go online to our website ([manpros.org](http://manpros.org)) and click on the "**Support Us**" tab to get to the donations page. There you can either click the "**Donate Now**" button and pay electronically, or you can print out the donation form and mail in your donation.

Thank you.

## Important Progress Being Made in Battle Against Late-Stage Prostate Cancer

Innovation in prostate cancer treatments may help patients live longer, happier lives.

### *Important Progress Being Made in Battle Against Late Stage Prostate Cancer*

In Canada, there were approximately 21,300 new cases of prostate cancer in 2017, representing 21 percent of all new male cancer patients.

In 2017, four cancers (prostate, breast, lung, and colorectal) combined to account for about half of all cancers diagnosed in Canada, with prostate and female breast the leading cancers. Prostate cancer is the most common cancer to affect Canadian men, with 1 in 8 diagnosed with the disease in their lifetime.

“Out of the more than 21,000 cases of prostate cancer detected in 2017, it is anticipated we will lose more than 4,000 men to the disease,” says Dr. Stuart Edmonds, the Vice President of Research, Health Promotion, and Survivorship at Prostate Cancer Canada. “It remains a significant issue for Canadian men and their families.”

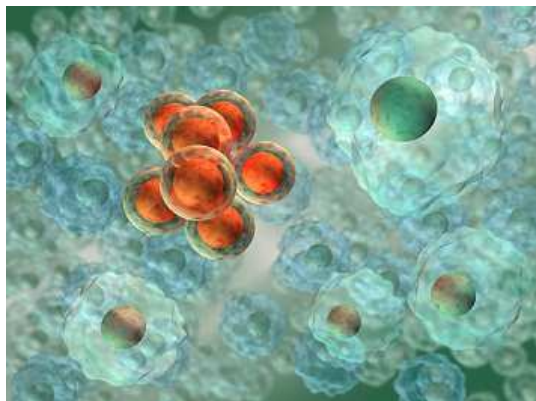
### **Prostate cancer invasive when untreated**

Prostate cancer often grows quite slowly, and some men who develop the disease may live many years without showing symptoms, making regular screening essential. If left untreated, prostate cancer can become invasive — spreading from the prostate to other parts of the body.

In order to grow and spread, prostate cancer cells need androgens — male hormones such as testosterone. In men with more advanced prostate cancers, the cancer will eventually continue to

spread and grow, even when treatment has lowered the level of androgens in the body. This is known as metastatic castration-resistant prostate cancer (mCRPC).

Current treatments prolong, and improve quality of, life. Until recently, the only treatment option for mCRPC was aggressive chemotherapy, but patients were often too sick to receive the treatment by the time the cancer was discovered. However, thanks to recent advancements in prostate cancer care, particularly the new class of targeted oral therapies, this is no longer the case.



“The new therapies have led to a dramatic change that is rarely seen in medicine,” states Dr. Ricardo Rendon, a professor in the Department of Urology at Dalhousie University. “In the first four to five years alone since the initial studies were released, life expectancy doubled from one-and-a-half to three years.”

“As a generally healthy man who wasn’t familiar with hospitals, my diagnosis of prostate cancer was a shocker, but the medicine they have put me on has really slowed it down,” confirms a patient of Dr. Rendon’s — a man in his 80s who was diagnosed in early 2017 and is now receiving oral

therapies. “The last time I saw my doctor, he told me to get out there and enjoy the rest of my life, which is just what I’m doing!”

Current research and development efforts surrounding these new therapies are focused on finding innovative solutions to improve the lives of patients living with cancer. Dynamic partnerships are leveraged to find research-driven solutions for molecularly targeted therapies and precision medicines that will have a positive impact on the lives of prostate cancer patients, their caregivers, and families.

“The quality of life improvements brought on across all domains by these new therapies are significant,” continues Dr. Rendon. “They result in decreased pain, less time spent managing the disease in terms of hospital visits etc., and an increase in general wellness and energy.”

“Perhaps the biggest positive we are seeing is a huge decline in mortality rate over time,” says Dr. Edmonds, in explaining why the motivation to beat prostate cancer remains so high amongst doctors and researchers. “Over the last 25 years we have had a 50 percent decrease in the mortality rate of prostate cancer.”

Dr. Stuart Edmonds  
Vice President, Research, Health Promotion,  
and Survivorship Prostate Cancer Canada

Dr. Ricardo Rendon  
Professor, Department of Urology, Dalhousie  
University

<http://www.personalhealthnews.ca/research-and-innovations/important-progress-being-made-in-battle-against-late-stage-prostate-cancer>

03-2018  
GAVIN DAVIDSON, ca  
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## Life-Saving Ai Is Revealed That Can Diagnose Prostate Cancer As Accurately As A Doctor

- An artificial intelligence system can diagnose cancerous prostate samples
- It could be particularly useful where there is a lack of trained pathologists
- Experts say it may lead to automated prostate cancer diagnosis
- The software can accurately classify the level of malignancy of the cancer

Prostate cancer can be diagnosed by new AI just as accurately as any doctor potentially saving millions of lives, new research suggests.

Chinese scientists and doctors have developed an artificial intelligence system which they say can accurately diagnose and identify cancerous samples.

Experts say it could streamline and eliminate variation in cancer diagnosis and will be particularly useful in areas where there is a lack of trained pathologists.

It could also lead to prostate cancer diagnosis being automated in the future.

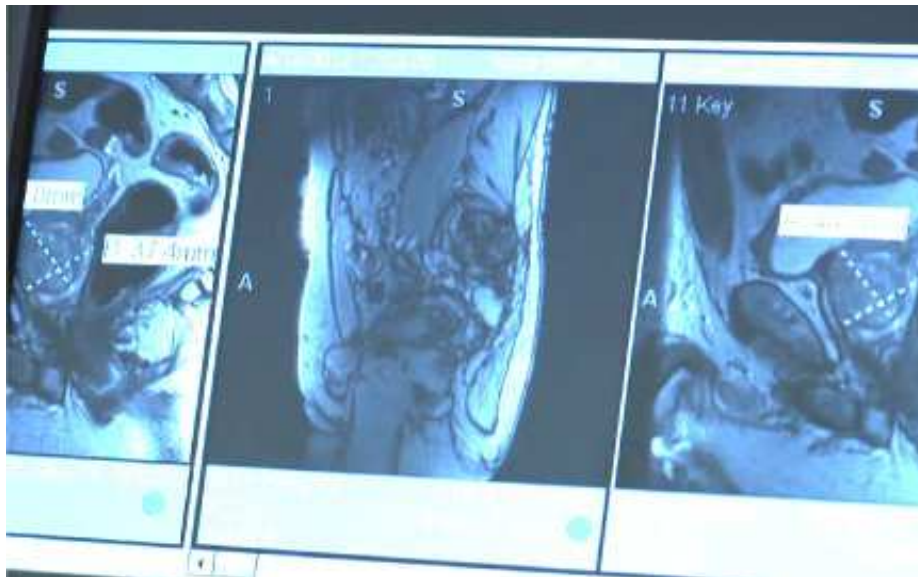
Prostate cancer is the most common male cancer, with more than a million new cases every year worldwide.

Confirmation of the diagnosis normally requires a biopsy sample, which is then examined by a pathologist.

This artificial intelligence learning

system, presented at the European Association of Urology congress in Copenhagen, Denmark, has shown similar levels of accuracy to a human pathologist.

And the software can accurately classify the level of malignancy of the cancer, eliminating the variability which can creep into human diagnosis.



Research leader Professor Hongqian Guo, of Nanjing University, said: 'This is not going to replace a human pathologist.

'We still need an experienced pathologist to take responsibility for the final diagnosis.

'What it will do is help pathologists make better, faster diagnoses, as well as eliminating the day-to-day variation in judgement which can creep into human evaluations.'

Professor Guo's group took 918 prostate samples from 283 patients and ran them through the analysis system, with the software gradually learning and improving diagnosis.

The pathology images were subdivided

into 40,000 smaller samples; 30,000 of the samples were used to 'train' the software, the remaining 10,000 were used to test accuracy.

The results showed an accurate diagnosis in 99.38 per cent of cases - using a human pathologist as a 'gold standard' - which is effectively as accurate as the human pathologist.

They were also able to identify different grades in the pathology sections using AI.

Professor Guo said: 'The system was programmed to learn and gradually improve how it interpreted the samples.

'Our result show that the diagnosis the AI reported was at a level comparable to that

of a pathologist.

'Furthermore, it could accurately classify the malignant levels of prostate cancer.'

Until now, automated systems have had limited clinical value.

They hope this programme will offer greater consistency in cancer diagnosis from pathologist to pathologist, hospital to hospital, country to country.

'Artificial intelligence is advancing at an amazing rate - you only need to look at facial recognition on smartphones, or driverless cars', said Professor Guo.

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'It is important that cancer detection and diagnosis takes advantage of these changes'.

Professor Rodolfo Montironi, of the Polytechnic University of the Marche in Italy, said of the breakthrough: 'This is interesting work which shows how artificial intelligence will increasingly step into clinical practice.'

He said it could be particularly useful

in some areas where there is a lack of trained pathologists.

He added: 'Like all automation, this will lead to a lesser reliance on human expertise, but we need to ensure that the final decisions on treatment stay with a trained pathologist.'

'The really important thing though, is that we ensure the highest standard of patient care. The future will be interesting.'

The newness of the system means that there is no information yet on costs or on implementation.

By Phoebe Weston For Mailonline

16 March 2018

source: <http://www.dailymail.co.uk/sciencetech/article-5509527/Hope-millions-life-saving-AI-revealed.html#ixzz59xWas2L0>

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## Active Surveillance of Prostate Cancer May Still Be an Option for Men with a Family History

A new review finds that a family history of prostate cancer should not automatically exclude low-risk patients from an active surveillance approach.

Many men with lower-risk, slower-growing prostate cancer qualify for careful monitoring of the condition with regular blood tests, rectal exams and biopsies or MRIs, referred to as active surveillance.

Although data show that men with a family history are more likely to develop prostate cancer, it has been less clear if family history should be considered when determining whether a prostate cancer patient qualifies for this active surveillance.

A review of six recent studies about the relationship between family history and prostate cancer progression concluded that a family history of the disease does not need to exclude men from considering active surveillance, says senior author James Dupree, M.D., assistant professor of urology at Michigan Medicine. The results are published in *BJU International*.

"A combination of PSA scores and biopsy results help identify patients who can delay or even avoid active treatment, such as surgery or radiation therapy, and instead follow an active

surveillance plan," says Dupree. "We undertook this review to determine whether a family history of prostate cancer should be included in the criteria for selecting patients for consideration of active surveillance."



### The methodology

Researchers from the Michigan Urological Surgery Improvement Collaborative sought to identify and review previously reported and publicly available English language primary research publications, which evaluated family history among patients eligible for or on active surveillance. Six studies met the researchers' qualifications.

Of the six studies analyzed, four used pathologic findings to evaluate disease progression or risk, and two used biomarker findings. Five of the six observational studies found no relationship between family history and prostate cancer progression while one study found African-American men with a family history may be at higher risk for progression.

"Our results suggest that having a family history of prostate cancer should not automatically exclude men who are otherwise eligible from being considered for active surveillance treatments," says Dupree. "Although, some questions remain around risk for African-American men with a family history of prostate cancer. Additional research on the subject of race, family history and eligibility for active surveillance is needed."

The Michigan Urological Surgery Improvement Collaborative formed five years ago with a mission to improve health care outcomes for men in Michigan with urologic conditions. Among the group's initiatives is a roadmap for determining and defining which patients are most appropriate for active surveillance.

"Ultimately, this is an individualized decision men need to make with their doctors," says Dupree. "We hope that this research informs conversations between patients and their doctors about risk, benefits and options."

Jessica Webster Sendra April 18, 2017

Source: <https://labblog.uofmhealth.org/lab-report/active-surveillance-of-prostate-cancer-may-still-be-an-option-for-men-a-family-history>

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## Prostate Cancer Presentations

The Manitoba Prostate Cancer Support Group uses a number of methods to provide the general public with information on prostate cancer. One such method is making "power point presentations" to any organization, company or group interested in learning about the disease.

The support group started this practice shortly after the support group's incorporation in 1992. The presentations began by the support group founder, Norm Oman. Tom Boomer recalls attending a presentation by Norm Oman in the fall of 2008 at the Masons Temple on Kimberly Ave. in Winnipeg. The presentations were carried on by Tom Boomer and Len Bueckert when both were on the board of the support group. They did many presentations to Manitoba Hydro employees in the Winnipeg, Dorsey Substation and at Lac du Bonnet as well to other groups in the Winnipeg, Selkirk, Headingley, and at various rural communities as far west as Swan Lake and Neepawa, Manitoba.

To date the power point presentation, that Tom and Len adapted using Norm Oman's original presentation, is used with minor changes that reflect the statics and conditions of today. The presentations, which take approximately 45-60 minutes, include the following:

- ◆ Power Point Presentation
- ◆ Discussion
- ◆ Question & answer
- ◆ Handouts

Examples of presentations made in 2017 & 2018 include the following with attendance in brackets:

- February 1- Community Health Group on Grant (35)
- October 5-Air Canada Retirees (90)
- November 11- Afro-Caribbean Association (35)
- January 3- CN Pensioner's Association of Manitoba (67)
- January 25-Transcona Sizzling Seniors Lunch and Learn (17)

Part of the support group mission is to spread awareness of prostate cancer and encourage males 40 years and older to be checked for prostate cancer. The presentations are very effective in meeting this part of the support group's mission. Most presentation attendees are introduced to prostate cancer for the first time and providing this information and raising awareness could make a difference in whether they or their significant other gets checked early. Early detection saves lives.

*The support group board requests your assistance in making the community at large aware that the support group will, at no cost, make a presentation on prostate cancer to any group that so requests. When you have a contact who would like a presentation refer them (or do it on their behalf) to Patrick Feschuk at lizpat@shaw.ca or at 204-654-3898, or contact one of the other members of the support group board.*

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## Higher Doses of Radiation Don't Improve Survival in Prostate Cancer

A new study shows that higher doses of radiation do not improve survival for many patients with prostate cancer, compared with the standard radiation treatment.

The analysis, which included 104 radiation therapy oncology groups across North America, was led by researchers at Washington University School of Medicine in St. Louis.

Past studies have shown that gradually escalating the radiation dose resulted in improved cancer control, such as slower tumour growth and lower levels of prostate-specific antigen (PSA), an indicator of cancer growth.

The new study, published March 15 in

JAMA Oncology, is the first that is large enough to examine whether these improved measurements translate into longer survival for patients.

"Our goal is to improve survival, but we didn't see that despite advances in modern radiotherapy," said first author Jeff M. Michalski, MD, the Carlos A. Perez Distinguished Professor of Radiation Oncology. "But we did see significantly lower rates of recurrence, tumour growth and metastatic disease - tumours that spread - in the group that received the higher radiation dose. Still, that didn't translate into better survival. The patients in the trial did better than we anticipated, and part of that may have been because of improvements in metastatic cancer therapy over the 10

years of the trial."

The study included about 1,500 patients with intermediate-risk prostate cancer, the risk category in which most patients fall.

To be classified in this risk category, patients generally have PSA scores of 10-20 ng/ml and a Gleason score of seven, the latter of which is a measure of tumour aggressiveness. Both treatment groups received external beam radiation.

The standard group received a radiation dose of 70.2 gray delivered over 39 treatment visits.

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The investigational group received increasing doses up to 79.2 gray delivered over 44 visits.

Of the 748 men receiving standard treatment, 75 percent were still alive after eight years of follow-up. Of the 751 men receiving the dose-escalation treatment, 76 percent were alive at the eight-year mark - a difference that is not statistically significant.

These overall survival rates include deaths for any cause, not just those due to prostate cancer.

Over the course of the study, 51 patients died of prostate cancer, which is 3.4 percent of all patients enrolled.

At the eight-year mark, the death rate due to prostate cancer for patients receiving standard treatment was 4 percent compared with 2 percent for patients receiving the escalating dose.

These rates also were not statistically different.

While there was no difference in overall survival numbers, Michalski pointed out some differences in side effects and in whether further treatment was needed later.

Such differences could help doctors

and patients in deciding the best treatment course.

Patients in the standard dose group were more likely to undergo further therapies to control tumours that had grown larger or that had spread to another site in the body.

But patients in the escalating dose group experienced more side effects - such as urinary irritation or rectal bleeding - sometimes years after treatment.

During the 10 years it took to enroll enough patients in the trial, Michalski said, at least six new therapies were approved for recurrent or metastatic prostate cancer, and these therapies have been shown to improve survival.

It is possible the patients in the standard treatment arm - who were shown to need more follow-up therapies - would not have done as well as the group receiving the escalating dose had these new therapies not become available.

"If there is a difference between standard and escalating doses, it's hard to show it when the patients who later develop recurrent cancer can have their lives extended through the use of additional therapies," said Michalski, who treats patients at Siteman Cancer

Center at Washington University School of Medicine and Barnes-Jewish Hospital. "Of course, these additional therapies have their own side effects, as does the higher initial dose of radiation therapy. In addition, the selective use of androgen withdrawal therapy has been shown to improve survival in men treated with radiation therapy. This treatment can be combined with either standard or higher dose radiation therapy."

"If we can safely deliver the higher dose of radiation, my opinion is to do that," Michalski added. "It does show lower risk of recurrence, which results in better quality of life. But if we can't achieve those 'safe' radiation dose goals, we shouldn't put the patient at risk of serious side effects down the line by giving the higher dose. If we can't spare the rectum or the bladder well enough, for example, we should probably back off the radiation dose. It's important to develop treatment plans for each patient on a case-by-case basis."

15 Mar 2018

source: <http://www.medicine.wustl.edu/>

<https://ecancer.org/news/13497-higher-doses-of-radiation-don-t-improve-survival-in-prostate-cancer.php>

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## BOARD VOLUNTEERS WANTED

As a result of undertaking several new initiatives / activities we require volunteer Board members to assist in general volunteering, advertising, fund raising, public meetings, special events, planning and all other activities that provide awareness and support to our members and the general public. The only qualification is a willingness to help. Please contact any Board member listed on the last page for further details and to volunteer.

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 Box 315 – 971 Corydon Ave., Winnipeg, Manitoba, R3M 3S7

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**Credit Card** donations can be made by going to our website at: [www.manpros.org](http://www.manpros.org) and clicking on the donate tab.  
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**2018 MEETINGS**

- 18-Apr**  
 Speaker: Dr. Vladimir Ruzhynsky  
 Title: "Advances in treating urinary incontinence"
- 16 May**  
 Speaker: Dr. Paul Daeninck  
 Title: "Questions and answers about prostate cancer symptoms"
- 20 June**  
 Speaker: Dr. Jason Ediger, Ph.D. C. Psych.  
 Title: "What about when bad things really do happen?" *Coping with the worry and uncertainty of prostate cancer*

**MPCSG BOARD**

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- Irek Iskat — membership  
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