

The 2015 Max Gardner Award recipients

In December, the Queensland Chapter of PCFA presented Max Gardner Awards to two Chapter members, Jim Hope and Fred Travis. Both men were acknowledged for their enduring efforts and dedication that have helped many men and their families deal with prostate cancer, while raising community awareness of this disease.

PCFA established the Max Gardner Award to ensure that the dedicated work of former PCFA Chair, the late Max Gardner AM, is remembered. The award honours Max by acknowledging men who, like him, are committed to raising prostate cancer awareness, promoting research and supporting both men and their families affected by prostate cancer.

A presentation function was held at Victoria Park Golf Club with National PCFA Chairman Jim Hughes on hand to present Jim and Fred with their awards.

Jim Hope, together with his late wife Val and two fellow prostate cancer patients, formed the Far North Queensland (Cairns) Prostate Cancer Support Group in August 2001. Over the past 14 years, Jim guided this increasingly popular support group, serving as convenor for 13 years.

Jim's tireless lobbying and fundraising on behalf of prostate cancer victims has forged a strong relationship with local urology and oncology specialists, as well as visiting specialists. He played a vital role in establishing the Liz Plumber Cancer Centre in Cairns, which enabled cancer patients to receive treatment locally, rather than travelling to Townsville or Brisbane for treatment. This has been of enormous benefit for



Jim Hope

radiotherapy patients, who often need up to eight weeks of daily treatment.

Jim was a Queensland Chapter Councillor for three years, regularly travelling to Brisbane for Chapter Council meetings. He was a prime mover in establishing a Northern Tablelands Prostate Cancer Support Group at Innisfail, and he continues to mentor both the Cairns and Innisfail support groups.

He was involved in appointing Far North Queensland's first dedicated prostate cancer nurse, and played a pivotal role organising Queensland's first regional conference in Cairns - a successful benchmark for all ensuing Queensland meetings.

Fred Travis was diagnosed with prostate cancer about 13 years ago. Successful surgery led to a complete recovery with no sign of recurrence. Fred has spoken about the importance of early detection on many occasions.

In this issue

- 2 Calendar of Events 2016
- 3 Psychological Distress of Advanced Prostate Cancer
- 5 Targeted Imaging & Therapy for Prostate Cancer
- 7 Prostatectomy & Post-operative Issues
- 9 Stopping the Spread of Prostate Cancer
- 10 What Is a Man?
- 11 Intermittent ADT
- 12 Hypofractionated EBRT for Low Risk Tumours
- 13 Family History & Prostate Cancer Penile Curvature: Correction
- 14 Genetic Discovery - How Prostate Cancer Spreads
- 15 News Round-up

Fred Travis



Continued on page 3...

CONTRIBUTIONS from all Support Group members to the quarterly Queensland Prostate Cancer Newsletter are most welcome. Please email items and images to qpcn@cancerqld.org.au

pcfa.org.au qpcn@cancerqld.org.au

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Calendar of Events 2016

February 4	World Cancer Day
February	Ovarian Cancer Awareness Month
February	Heart Research Month
March 12-15	World's Greatest Shave fundraiser
April 7	World Health Day
Anytime	BBQ for Prostate Cancer pcfa.org.au
May 26	Australia's Biggest Morning Tea cancerqld.org.au
Anytime	C-vivor (free sessions) cancerqld.org.au



Prostate Cancer Support Groups in the Queensland Chapter

There are 30 PCSGs in the Chapter with a total membership of approximately 3,700 men.

Peer Support Group	Contact	Phone	Peer Support Group	Contact	Phone
Advanced (all areas)	Jim Marshall	07 3878 4567	Hervey Bay	Ros Male	0407 157 590
Biloela	Trevor Douglas	0409 235 891	Innisfail	Peter Coxen	07 4065 5070
Brisbane	Peter Dornan	07 3371 9155	Ipswich	Len Lamprecht	07 3281 3656
Bundaberg	Rob McCulloch	07 4159 9419	Lockyer Valley	Bob Stewart	0404 399 570
Capricorn Coast (Yeppoon)	Jack Dallachy	07 4933 6466	Mackay	Evelyn and John Clinton	07 4942 0132
Central Queensland (Rockhampton)	Gary Osmond	07 4938 4509	Maryborough	Leoll Barron	07 4123 1190
Far North Queensland (Cairns)	Mal Fraser	0409 677 007	Moreton Bay Regional	Fred Travis	07 3840 5904
Far North Queensland Partners	Margaret Rolfe	07 4045 1031	North Burnett	Russell Tyler	07 4161 1306
Gay/Bi/Trans	David Wells	0411 081 653	North Queensland (Townsville)	Clarke Berglin	07 4773 3303
Glass House Country	Bob McLean	07 5496 9601	Northern Rivers (Evening)	Ray Chilton	02 6621 2053
Granite Belt	Ian Robbins	0416 169 032	Northern Tablelands	Peter Martin	07 4096 6315
Gold Coast Central	Jeff Crane	07 5562 2578	North West Qld (Mt Isa)	Greg Humphrey	0477 666 108
Gold Coast North	John Caldwell	07 5594 7317	Sunshine Coast	Rob Tonge	07 5664 1318
Gold Coast Partners	Kerri Caldwell	07 5594 7317	Toowoomba	Doug Meiklejohn	07 4634 4006
Gympie	Keith Young	07 5484 5229	Twin Towns and Tweed Coast	Ross Davis	07 5599 7576

Associated Support Groups

Group	Contact	Phone	Group	Contact	Phone
Kingaroy	Robert Horn	07 4690 5800	Redcliffe	Fred Travis	07 3480 5904

The 2015 Max Gardner Award recipients

(continued)

Following his diagnosis, Fred became a regular member of the Brisbane Prostate Cancer Support Network. In 2006, he joined PCFA Queensland Chapter Council and was elected Council Secretary, a position that he retains. His business acumen and knowledge has helped guide Council through substantial growth of its Queensland Support Groups network, and he has established the protocols necessary for maintaining them. As a resident in Brisbane's northern suburbs, Fred recognised the need for a support group in that area, to help men unable to travel to Brisbane for meetings. In 2012, he was instrumental in forming the Redcliffe Support Group, after negotiations

with the Urology Department at Redcliffe Hospital, which provides facilities to conduct meetings. The group helps men and their families throughout the Moreton Bay region, from Caboolture and Bribie Island to Redcliffe and Petrie. Moreton Bay Regional Council has since come on board to assist the group and contribute to its growth. Monthly meetings are well attended by men and their partners. Fred is one of the longest serving active members of the Prostate Cancer Support Network in Queensland, which is an incredible effort as he has also run his own business during this time.

Assessing the psychological distress of advanced prostate cancer

Leah Zajdlewicz works in Cancer Council Queensland's Community Engagement Research Team, and in November she spoke to the Brisbane Support Group about her projects and ongoing research - particularly the impact on men after being diagnosed with advanced prostate cancer.

Leah joined Cancer Council Queensland in 2010 and as a registered psychologist she looks at ways to understand and assist with the impact of cancer. She manages psycho-oncology research projects about the effects of cancer on an individual's psychological health, and the social and behavioral factors affecting the disease's progression.

Leah is coordinating a community-based research project on survivorship to identify and address disparities in cancer control

and assess the day-to-day emotional and physical impact of post-cancer treatments within communities.



Leah Zajdlewicz

Remembering the life of Max Gardner

Max Gardner AM died in October 2004, aged 71. He was diagnosed with prostate cancer in 1995 and firmly believed that if the cancer had been diagnosed earlier he might still be alive. He became a tireless advocate for early diagnosis, raising community awareness about prostate cancer and promoting research into this disease. He established and ran support groups, published a newsletter and served on numerous educational and scientific committees.

In 1996, Max founded the St Vincent's Prostate Cancer Support Group in Sydney. In 2001, he was chairman of PCFA's Support and Advocacy Committee, and in 2002 was appointed a Member of the Order of Australia. Cancer Council NSW awarded him Advocate of the Year in 2002 for his work in establishing Cancer Voices. In 2003, Max became PCFA Chairman. In the following year, he was re-appointed to the Management Committee of the Australian Prostate Cancer Collaboration. In 2004, he joined the National Advisory Council on Suicide Prevention.

In Australia, about 120,000 men have prostate cancer, and while most are diagnosed with localised prostate cancer, between 20-30 per cent progress to locally advanced or metastatic disease.

A locally advanced tumour has spread beyond the prostatic capsule but is still confined to the prostate region. In advanced disease, the cancer has extended into surrounding tissue or organs, or into more distant parts of the body. This is referred to as metastatic prostate cancer.

Advanced prostate cancer treatment can consist of any or all of androgen deprivation therapy (ADT, often referred to as hormone therapy), immunotherapy, chemotherapy, radiotherapy, or the use of other drugs to slow or curtail tumour growth. Treatment side effects are well documented but are outlined in the following slide.

Treatment side-effects



Many studies comparing men with localised prostate cancer to those with advanced disease show that the last group experiences a reduced quality of life (QoL). Apart from treatment side effects, men often experience considerable psychological distress stemming from uncertainty and lack of input about treatment decisions. Many feel confused about their future, and would have preferred more information and guidance at the time of diagnosis about their path ahead. Treatment regrets were reported by 23 per cent of men, and their poor QoL scores showed greater levels of distress, worse self-image ratings and negative feelings about their masculinity. The Cancer Council Queensland

study and research aims to define the long-term QoL and psychological outcomes after advanced prostate cancer is diagnosed. Areas being measured include psychological distress, treatment distress and QoL. The methodology includes analysis of data obtained as part of a larger longitudinal study. The participants were 81 men with self-reported locally advanced or advanced prostate cancer living in Queensland. Wellbeing assessments were obtained via a questionnaire at 2, 6, 12, 24 and 36 months.

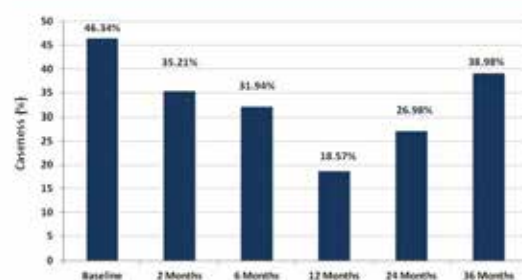
The diagnoses were from men aged between 50 and 87 years, with an average of 68.4 years. At diagnosis, PSA readings were between 0.3 and 630.0, with an average of 44.6; 5 per cent had a Gleason Score of 6 or less, while 41 per cent had a Gleason 7 and 54 per cent were in the 8-10 range; 95 per cent had ADT as part or all of their treatment, 59 per cent external beam radiotherapy and 20 per cent brachytherapy; 37 per cent had only mono-therapy, 36 per cent had two types of therapy and 27 per cent had three. In personal records, 80 per cent of the men were in a relationship, 52 per cent had trade or tertiary qualifications, 68 per cent were retired and 62 per cent had either private health insurance or DVA.

The study was limited by a small sample size and participants were generally Caucasian, well educated and in heterosexual relationships. However, results showed that a substantial proportion of men were still classified as distressed at 36 months and experienced a sustained decrease in their QoL, indicating the need for psychological service delivery for men in this situation. The study also showed that at the time of diagnosis, patients would benefit from better education about their disease, possible treatment choices and medical management. For any men concerned with their

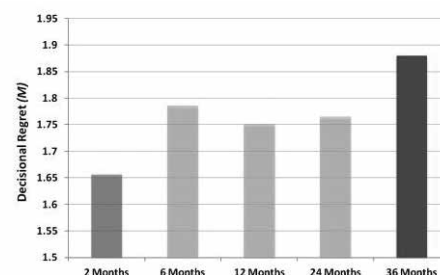
prostate cancer diagnosis, treatment or post-treatment problems, the Cancer Council's support and information service is available by phoning 13 11 20 or by visiting the website cancerqld.org.au

The following four slides chart the progress of the participants during the study.

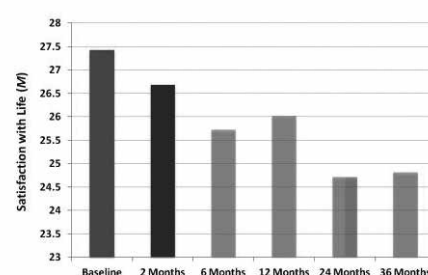
Distress Thermometer - Results



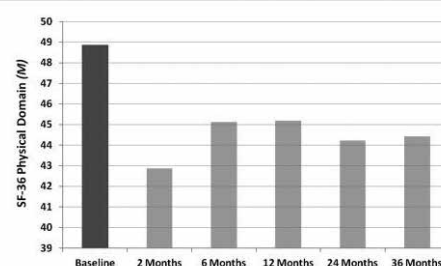
Decision Regret - Results



Satisfaction with Life - Results



Quality of Life - Results



Explaining targeted imaging and therapy for prostate cancer

Professor Pamela Russell has made a significant contribution to Australian and international medical research, particularly in the field of oncology - and in December she gave a presentation to the Brisbane Support Group summarising current imaging and therapy for prostate cancer.



Professor Pamela Russell AM

Professor Russell was one of the founders of the Urological Cancer Research Centre at Royal Prince Alfred Hospital, and was director from 1992 to 2009 while also chair in medicine at the University of New South Wales.

She is currently Head of Biomedical Imaging and Prostate Cancer Models at the Australian Prostate Cancer Research Centre, housed within the Institute of Health and Biomedical Innovation, which is part of the Queensland University of Technology.

Professor Russell has written more than 200 papers for international journals, numerous books and conference presentations, and holds two international and several provisional patents. In 2005, she became a Member of the Order of Australia, and at the International Prostate Cancer Conference hosted

by PCFA in 2010, she received the inaugural Prostate Cancer Researcher of the Year Award. In 2015, she became a Fellow of the Australian Academy of Health and Medical Sciences.

In her presentation to the Brisbane support group, Professor Russell emphasised that prostate cancer is the most common, non-preventable cancer in Australian men, but in spite of aggressive therapy, more than 3000 Australian men die of the disease each year.

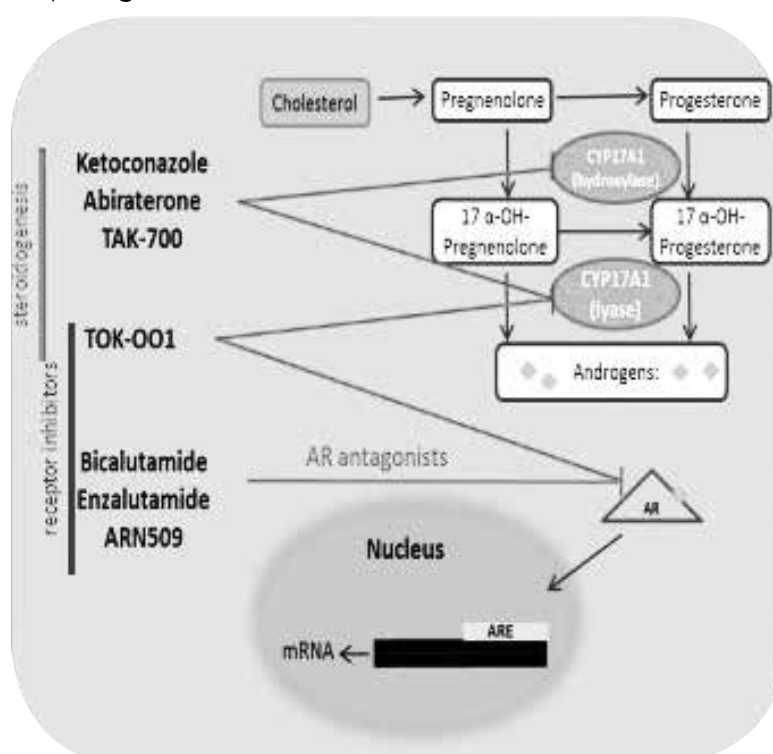
Early prostate cancer, which is confined to the gland, is treatable by surgery or radiation with a high rate of cure, although in some cases the cancer can progress to more aggressive disease or recur after treatment.

Prostate tumour cells require the male hormone androgen (testosterone) to grow and function. Treatments causing a reduction in androgen levels (through hormone or androgen deprivation therapies) can be successful in halting or slowing tumour growth, but in some cases the cancer can recur and possibly spread. These are referred to as castrate-resistant prostate cancers

New therapies for advanced prostate cancer continue to target androgen signalling pathways

(CRPC). Studies by Professor Colleen Nelson at the Prostate Cancer Research Institute (Queensland) have shown that these cancers are capable of producing their own androgens, which occur from hypersensitivity to androgen-resistant gene amplification, and mutations that permit activation by other androgens/steroid hormones to increase tumour growth and survival.

This mechanism has been the target for new CRPC treatments, as illustrated in the following slide.



This strategy has produced several new therapies for treating CRPC. Only a decade ago, chemotherapy (docetaxel) was a man's last line of defense if his advanced prostate cancer became castrate resistant. If chemotherapy failed, palliative care was the next option.

There are now more options if chemotherapy is unsuccessful or unable to be used - with some being approved and others still in

Abiraterone Acetate is FDA approved and produces an irreversible inhibition of the tumour's ability to synthesise androgen. Approved for use in Australia.

MDV3100 (enzalutamide) FDA approved for post-docetaxel use, it is an AR antagonist preventing nuclear translocation and binding to chromatin. Available in Australia but PBS Authority required.

Dovitinib (TK1258) An inhibitor of FGFR in Phase II trials in men after the failure of docetaxel chemotherapy. Not approved for Australian use.

Cabozantinib (XL184) An inhibitor of c-MET currently in Phase II/III clinical trials in men with CRPC and who have been previously treated with chemo, abiraterone acetate or MDV3100. Clinical trials underway in Australia.

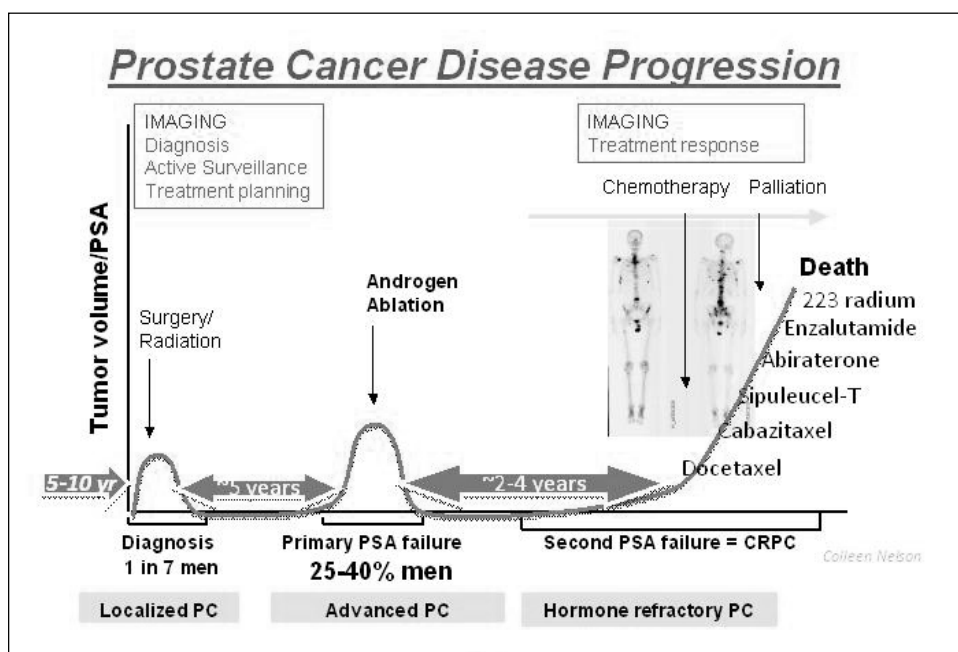
Details of clinical trials can be obtained by visiting www.australianclinicaltrials.gov.au

Along with new and emerging therapies, a new imaging method with improved tumour specificity and sensitivity is needed to give a more accurate diagnosis and better assessment of possible response to therapy.

At present, Transrectal Ultrasound Guided Prostate Biopsy (TRUS Biopsy) has limited sensitivity. While transperineal biopsies may show a slight improvement over TRUS, both can miss cancer foci and anterior tumours. Following a radical prostatectomy, men with insignificant prostate cancer at biopsy can often show a worse disease.

Multiparametric Magnetic Resonance Imaging (mpMRI) can improve diagnosis and define areas where biopsies should be taken, including anterior tumours, but still have low tumour specificity and sensitivity.

Newly developed biocompatible iron oxide magnetic nanoparticles (MNPs), together with J591 (an antibody to an extracellular epitope of Prostate Specific Membrane Antigen), are being investigated at QUT to enhance MRI of preclinical prostate cancer. The MNPs are readily taken up by the tumour cells and the superparamagnetism causes a darkening effect on the magnetic



clinical trials.

Docetaxel is an FDA approved chemotherapy agent which shows an overall survival benefit and palliation of cancer-associated symptoms. Approved for use in Australia for CRPC.

Cabazitaxel, also a chemo agent is FDA approved for use after the failure of docetaxel with similar outcomes. Approved for use after failure of docetaxel.

Sipuleucel-T (Provenge) is an immunotherapy drug used to enhance a man's immune system to recognize and induce cytotoxic response against prostate cancer cells. It is FDA approved. Not approved in Australia.

BAZ235 is in Phase I/II clinical trials in combination with abiraterone acetate to inhibit P13K. Results are pending. Not available in Australia.

RAD001 (everolimus) is in Phase II clinical trials in combination with bicalutamide as an inhibitor of mTOR. PBS Authority required in Australia.

Alpharadin (Radium 223) is an alpha emitter which selectively targets bone metastases. Phase III clinical trials are being conducted in men who were not eligible to receive, or declined to have, docetaxel. Clinical trials underway in Australia.

Continued on page 7...

resonance images, which improves visualisation.

The MNPs are non-toxic to prostate cancer cells, and after MNP-J591 treatment there is a high iron accumulation in human PSMA+prostate cancer cells. Work carried out with mice models shows improved MRI detection of human prostate cancers grown in mice. As the MNPs are safe on normal prostate and prostate cancer cells, and because of the J591-MNP increased iron uptake by the cancer cells, PSMA-targeting MNPs have the potential to enhance MRI diagnoses of primary lesions as well as metastases.

Other research being carried out uses PSMA-targeting hyperbranched polymers (HBPs), and comparing the PSMA-targeting efficacy of three HBPs to image prostate cancer. In vitro studies show that HPB-peptide and HPB-J591 can image PSMA+prostate cancer cells; in vivo work shows that HBP-peptide imaged pre-formed human PSMA+prostate cancers grown in mice.

Therefore, HBP-peptide has the potential to enhance prostate cancer detection and localisation, improving patient management and, importantly, the addition of drugs to HBP-peptide would allow prostate cancer-targeting therapy.

PSMA-PET (positron emission tomography) imaging in prostate cancer patients has shown a promising ability to detect metastatic lesions in men with biochemical recurrence, even with low PSA levels (58.3 per cent and 85.9 per cent for detection rate for PSA 0.5-1.0 and 2.1-5.0 ng/ml respectively) and lymph node involvement. These results may enable early changes in disease management for men

with a recurrence or undetected metastases.

These imaging techniques can be verified in dogs with late-stage prostate cancer, allowing more advanced toxicology, pharmacokinetic and imaging studies to help gain TGA approval and subsequent translation to the clinic.

For a video of Professor Russell's talk and full slide show presentation go to www.jimjimjimjim.com/videoresearch-report-dec-2015.html

The Brisbane Prostate Cancer Support Group has organised several significant guest speakers for 2016:

- February 10 at 7pm: Dr Sally-Anne Stephenson, from the School of Biomedical Sciences' IHBI and TRI, speaking on "EPHective targeting of prostate cancer".
- March 9 at 9.30am: Dr Jane Turner, psychiatrist from the University of Queensland, speaking on "Coping with a diagnosis of Prostate Cancer".
- May 11 at 9.30am: Dr Bryan Burmeister, radiation oncologist at PAH and Wide Bay, speaking on "Updates in Radiation Oncology".

Prostatectomy and post-operative issues

Urologist Dr Greg Malone, who is well known to many Queensland Support Group members, offers this practical advice about post-operative issues that may occur after a prostatectomy.

Dr Malone is an authoritative voice on such matters, as he has a special interest in prostate cancer and pelvic uro-oncology, laparoscopy and prosthetic surgery.

After graduating from the University of Queensland in 1992, Dr Malone continued further medical training in Brisbane and regional Queensland



Dr Greg Malone (R) with Brisbane Support Group Member Ian Smith

centers, and in 2002 undertook post-fellowship training at the prestigious Institute for Urology and Nephrology in London. He commenced consultant urological practice with the Brisbane Urology Clinic in 2003.

Continued on page 8...

Other than active surveillance, treatment for localised prostate cancer is predominantly done surgically, with a radical prostatectomy. Robot-assisted prostatectomies are now more common than open surgery, ensuring faster recovery times and usually earlier catheter removal. However, while robotic surgery is now well established and has impressive long-term results, the post-operative problems of continence and erectile function issues still remain.

Erectile dysfunction immediately after a prostatectomy is normal, but while some men regain erections relatively soon, others do not and intervention may be required. For those involved in an intimate relationship before surgery, the loss of erectile function can cause distress and psychological problems. While the man has the disease, the couple must cope with outcome together.

Queensland Prostate Cancer News has covered penile rehabilitation in several editions during 2015: February - Dr Michael Gillman on Erectile Dysfunction and Rehabilitation; May - Preserving Intimacy After Prostate Cancer; August - Dr Bashir-Elahi on Understanding Post-Surgical Penile Problems, and a story titled Life Goes On: The Importance of Sexual Health.

To reinforce the facts, it's important to remember the use-it-or-lose-it message, and consider intervention so that things get back on track as soon as possible. This can begin immediately after catheter removal.

It's worth discussing penile rehabilitation with a medical professional knowledgeable in men's health issues or with one of the growing number of specialist prostate cancer nurses. Therapy

may include pills, vacuum pumps or penile injections.

Continence problems immediately after a prostatectomy are also normal. Many men will be dry within two to three months, but if a problem still exists at 12 months, medical intervention may be needed.

Incontinence can be easily measured and classified. Sanitary pads can be weighed when dry and then after use to calculate the amount of urine leakage. If at 12 months the figure is 100g/day or less, your incontinence is rated as low or negligible. Between 100-400g per day shows intermediate incontinence and 400g-plus is regarded as severe incontinence.

For those with low/negligible incontinence (one pad per day), men may prefer to keep using pads, or use an Urodome, a condom-like tube that fits over the penis and allows urine to drain into a leg bag.

Those men with an intermediate-to-severe rating may benefit from medical intervention. Urethral bulking agents can help to bulk up a sphincter that is leaking due to damage during surgery or weaknesses. Macroplastique (also known as collagen) can be injected into the sphincter, and good results have been recorded. The process may need to be repeated in time, but it's a minimally invasive procedure.

Slings offer another way to prevent leakage. The bladder drops after the prostate is removed and an implanted sling bolsters the bladder neck, giving effective results. Sling technology has improved and modern slings elevate the pelvic floor to support the sphincter muscle.

For more severe incontinence, an artificial urinary sphincter can be

considered. This device is surgically implanted while the patient is under a general anaesthetic, and comprises a cuff placed around the urethra/bladder neck, a reservoir implanted in the lower pelvic area and a pump in the scrotum. In normal mode, the cuff closes tightly around the urethra, preventing any urine leakage. When urination is required, the pump is activated and liquid moves from the cuff to the reservoir, releasing pressure on the urethra and allowing the bladder to empty. Once empty, liquid flows in the opposite direction and closes the cuff. These hydraulic units are reliable and worth considering if other methods do not succeed.

Regular pelvic floor exercises are extremely important to help regain normal urinary continence. They should begin as soon as a patient decides to have a prostatectomy - as long as possible before the surgery - and continue after catheter removal.

Men have two sphincter muscles that control urine flow but they lose one during a prostatectomy, so it's important to keep the remaining muscle and pelvic floor muscles in good working order.

If you are uncertain about the correct way to do pelvic floor exercises, consult a physiotherapist who specialises in this area. Cancer Council Queensland and PCFA have excellent publications available on the subject (find contact details in the Resources section of this publication), or read Peter Dornan's book, *Conquering Incontinence: A New and Physical Approach to a Freer Lifestyle*.

• **For further information, contact Dr Malone at the Brisbane Urology Clinic (phone 07 3830 3330), or its offices in Bundaberg and Rockhampton.**

Collaborators work to stop spread of prostate cancer

Understanding the spread of cancer and how to best treat patients requires teams of researchers with specialist knowledge and state-of-the-art facilities. Award-winning Institute of Health and Biomedical Innovation researcher Distinguished Professor Judith Clements has access to both, and part of her current focus is on metastasis - the spread of cancer within the body.

Professor Clements heads a multidisciplinary team based at the Australian Prostate Cancer Research



Professor Judith Clements

Centre - Queensland, which is part of Institute of Health and Biomedical Innovation at the Translational Research Institute in Princess Alexandra Hospital. The team is studying the spread of prostate cancer to the bone and the role that proteins play in both progressing and potentially blocking the cancer.

Drawing on the expertise of geneticists, molecular biologists and mechanical engineers, the team

has developed 3D models of tissue-engineered bone to accurately mimic how cancer cells invade bones. The models enable the study of various cells to determine their potential roles in cancer development, progression, diagnosis and treatment.

Ultimately, the team aims to find a way to block proteins that may trigger bone metastasis, which is the secondary form of prostate cancer that most commonly proves fatal.

Bone metastasis is the typical outcome of advanced prostate cancer but Professor Clements says little is known of the underlying mechanisms. "Our research aims to determine the roles of prostate-specific antigen (PSA), a protein produced by prostate cells, and Kallikrein proteases, enzymes that break down protein," she says. "We are investigating if there are genetic changes in the Kallikrein genes that may be predictors of prostate or ovarian cancer."

PSA and other members of the Kallikrein protease family are known to be present as biomarkers, pointing to the presence of cancer and making them a potential target for diagnosis and therapeutic treatment.

The team is examining substrates on which the enzyme acts. This work involves collaborations with colleagues in the US, Canada, UK and Europe. Professor Clements plays a key leadership role, being chair of the Australian Prostate Cancer Bioresource, which is the national prostate cancer tissue bank that collects, interprets and distributes prostate cancer tissues and other clinical samples for research use in Australia and overseas. The bioresource received a \$200,000 combined donation from

PCFA and Toowoomba's It's a Bloke Thing Foundation in April.

Professor Clements has been recognised for her work, receiving a Companion of the Order of Australia for her outstanding contribution to biomedical research and success generating funds to establish vital national medical research facilities.

About the Australian Prostate Cancer Research Centre - Queensland

Established in 2008 as a joint-initiative of IHBI and the Princess Alexandra Hospital, the Australian Prostate Cancer Research Centre - Queensland is led by Professor Colleen Nelson. The centre is modeled on the successful Vancouver Prostate Center at Vancouver General Hospital, and researchers focus exclusively on prostate cancer in a multidisciplinary framework that integrates research activities from discovery through to clinical trials.

About the Translational Research Institute

The Translational Research Institute is an Australian initiative of bench-to-bedside medical research. The institute combines clinical and translational research to help the progress from laboratory discovery to application in the community. The founding partners are Queensland University of Technology, The University of Queensland, the Mater

Continued on page 10...

Medical Research Institute and Queensland Health. Incorporating biopharmaceutical manufacturing at the institute enables the discovery, production, clinical testing and manufacture of new treatments and vaccines in one location.

The institute's collective expertise will work on both common and serious diseases, including cancer, diabetes, inflammatory disease, HIV, malaria, bone and joint disease and

International medical conferences come to Brisbane

Two major international medical conferences were held in Brisbane during November - Immunotherapy@Brisbane and the Prostate Cancer Collaborative Research 2015 Symposium.

Immunotherapy@Brisbane, held at the Brisbane Convention & Exhibition Centre, focused on the emerging and clinical applications of immunotherapy for cancer, infectious diseases, autoimmune disorders, transplantation, inflammation, immune deficiency and infectious diseases.

Immunotherapy (sometimes called immunotherapy vaccines) involves taking blood and other samples from patients whose immune system cannot recognise or deal with a particular disease. Samples are modified in the laboratory and taught to deal with the offending disease, then re-injected back into the patient to boost their immune system and help fight the offending cells.

This cutting-edge technology is of particular interest to prostate cancer patients after USFDA approval of Provenge, an immunotherapy vaccine for treating

obesity, with the aim of enhancing prevention and treatment.

- This article first appeared in the OCT15 issue of *Advances: the QUTihbi Newsletter*

advanced prostate cancer in certain circumstances.

The Prostate Cancer Research 2015 Symposium, held at the Translational Research Institute in Woolloongabba, addressed a wide range of innovative prostate cancer treatments, plus the research and development of therapies targeting advanced and metastatic disease.

Held over four days, the symposium covered the progress and future direction of many treatment options, with possible new biomarkers, drugs and therapies hoping to tame prostate cancer.

Professor Colleen Nelson hosted an open prostate cancer research forum on the final day of the symposium, addressing contemporary issues and advanced prostate cancer management. The forum also covered the role of exercise and nutrition, the use of complementary therapies and natural health products, and nursing and palliative care.

Presentations from Movember and TrueNth explained their support for research, awareness and individual patient assistance relating to men's health issues.

The Quest: What is a Man?

These thoughts about masculinity are offered by physiotherapist Peter Dornan AM, founder and convener of the Brisbane Prostate Cancer Support Group.



At a recent scientific symposium in Brisbane highlighting research into men's health and prostate cancer, some universal questions were asked: "Why don't men look after their health better?" "Why must men appear to be invincible, invulnerable, stoic, never wrong and always-in-charge?" "Why do men give the impression they have their heads in the sand concerning questions related to their health?"

These questions are relevant even for younger men: more than 40 per cent of men aged over 40 suffer serious health problems, including heart disease, stroke and cancer.

However, understanding the basis for these questions isn't easy. It's necessary to go back about two million years.

Early in the Pleistocene era, our ancestors (*homo erectus*) formed nomadic hunter-gatherer tribes in

order to survive. Society's needs dictated that men should be the hunters, killing large animals to provide protein-rich meat. They formed teams, building strong bonds of mateship as they focused on tracking and chasing their prey. It's a bond that is still strong, evidenced in the military and sport. They needed strength, endurance and speed to be successful. They became warriors, to protect their tribe and families.

Women of the tribe searched and gathered local food, and cared for their children and habitat. Society also deemed that women look after their family's health.

Life was governed by three drives
- to protect, provide and procreate
- the three Ps. We have lived our existence by these three Ps steadfastly through the generations
- from frozen European ice-ages hunting mammoths, through hunting buffalo on the American plains, to fishermen at sea, as modern corporate warriors circling a good deal, or engaging in the ultimate gladiator sport of politics.

This vision has persisted but gender equality means that demands on men for providing and protecting are not as great as previously in history.

So, where do men go from here? Are we to be held captive in an ivory tower of our imagined manhood, isolated from emotion, vulnerability and our greater humanity?

Psychologist Karen Nixon says aggression and vulnerability are human qualities, not gender roles. They have been unnaturally suppressed, rendering us powerless and inexperienced when we are confronted with any threatening disease or loss.

Is there a way out? It requires change: we must begin to see life with greater insight and awareness, which may translate to living a fuller life with more complexity. We have

*"A man must go on a quest
To discover the sacred fire
In the sanctuary of his own belly
To ignite the flame in his heart
To fuel the blaze in the hearth
To rekindle his ardour for the earth."
- Sam Keen*

to be prepared to go through a process of transformational change, which means entering a period of self-reflection and reinvention. It means going on a quest to rediscover the sacred fire that ignites in our belly.

This starts by altering our perception of who we are, challenging all previous roles placed on us by institutions, school, churches, government, parents and history, to rebuild our identity from scratch. It means accepting that a male has human qualities, that he need not be aggressive, nor invulnerable, and will achieve more efficiently by sharing and collaborating with their partners. Men will get sick like everyone else; disease does not favour gender.

Men must regain responsibility for their health, from a young age. We must learn to be proactive, learn about screening, heart health, diet and all aspects of health and fitness. We must also regularly consult with our GP. It makes sense to share health problems with our partner, although we must retain the ability to be in charge, to be the commander and architect of our health.

To keep driving this concept forward, we must encourage and support institutions that reinforce men's health - and we now have many such significant organisations, such as PCFA, Andrology Australia, Movember, Beyond Blue, Men's Sheds and Cancer Council Australia.

Intermittent ADT for prostate cancer may improve quality of life

Reference: By Dr Anna Azvolinsky, Cancer Network, September 25, 2015

Continuous androgen deprivation therapy (ADT) is the standard treatment for advanced prostate cancer, but a new meta-analysis suggests that overall survival outcomes between intermittent and continuous ADT are similar. The study, published in JAMA Oncology, also found that physical and sexual function was better among men who received intermittent ADT.

Dr Sindy Magnan and researchers at Université Laval in Quebec, Canada, compiled data from 15 randomised clinical trials of 6856 patients. A total of eight, five, and four trials were included in the overall survival, cancer-specific survival, and progression-free survival, respectively. The average age of trial participants was 70.

The comprehensive analysis included three recent trials that compared the two ADT approaches.

The research showed no statistical difference between the two dosing schedules for overall survival, cancer-specific survival and progression-free survival. There was also no difference in time to castration resistance. Of four trials that evaluated this endpoint, two trials showed a statistically significant difference favoring intermittent therapy; the difference was not significant in the two other trials. No differences in adverse events were found in the meta-analysis of twelve clinical trials, although not all trials systematically evaluated drug-related safety.

Two of the trials reported better quality of life with intermittent therapy while three trials showed no difference between intermittent and continuous therapy. Seven additional trials also reported better physical and sexual function with intermittent ADT.

While the authors based their conclusions on sound statistical analyses of pooled patient populations, medical oncologist Christopher J. Sweeney of the Dana-Farber Cancer Institute in Boston, proposed that such large population studies are not always relevant to individual patient care because there is “clinical uncertainty in the data,” and presented case scenarios that argue his point.

“In the metastatic setting, I propose that when a patient is not on a protocol, it is very reasonable to exercise clinical judgment whether to use intermittent ADT based on an individual patient’s response to therapy, adverse event profile, and risk of death from a competing comorbidity,” said Dr Sweeney.

Hypofractionated radiation therapy benefits low-risk prostate cancer patients

Reference: By Dr Anna Azvolinsky, Cancer Network, October 21, 2015

Hypofractionated radiation therapy appears to lead to similar efficacy and safety as a standard radiation therapy regimen for men with low-risk prostate cancer. Results of a Phase 3 Radiation Therapy Oncology Group study comparing the two types of regimens were presented at the 57th Annual Meeting of the American Society for Radiation Oncology in San Antonio, Texas during October.

After a median of 5.9 years, analysis showed that hypofractionated and conventional radiation therapy had similar disease-free survival. The estimated seven-year disease-free survival rates were 76 per cent and 82 per cent in the conventional and hypofractionated radiation therapy study arms, respectively.

The trial randomised 1105 men with low-risk prostate cancer to receive either conventional radiation therapy with 73.8 Gy in 41 fractions given over 8.2 weeks, or the shorter-course therapy of 70 Gy in 28 fractions given over 5.6 weeks.

“This is the first large-scale, randomised study demonstrating the value of a shorter course of radiation therapy for low-risk prostate cancer patients,” said study co-author Dr Howard M. Sandler, who is professor and chair of the department of radiation oncology at Cedars-Sinai Medical Center in Los Angeles. “The results are not surprising, given that studies on the effects of hypofractionated radiation therapy in patients with early-stage breast cancer,

which is similar to early-stage prostate cancer, have demonstrated similar outcomes.”

Patients had a median age of 65 and a median pretreatment PSA score of 5.4. Men studied had clinical stage T1-2a disease, a Gleason score of 6 or less and PSA score of less than 10. Biochemical recurrence, as measured by PSA score, and overall survival in the hypofractionated arm were non-inferior to the standard radiation therapy arm.

Rates of grade 3 late side effects were similar among the two treatment arms. In patients receiving conventional radiation therapy, 3 per cent had gastrointestinal side effects compared with 5 per cent in the hypofractionated arm. Genital or urinary side effects were also similar between the two arms, with 5 per cent in the conventional arm, compared with 6 per cent in the hypofractionated arm.

Family history is the vital risk factor for prostate cancer

Reference: News Medical, September 22, 2015

Family history is the most critical risk factor for identifying prostate cancer, with men being at greater risk if their father or brother had prostate cancer.

"Prostate cancer's reputation as the silent killer stems from the limited warning signs, so because of this men must work closely with their doctors to identify all possible red flags from their family history," says Dr David Samadi, Chairman of Urology and Chief of Robotic Surgery at Lenox Hill Hospital, New York.

"It is important for men to know where they stand with prostate cancer. If your father or brother has prostate cancer, particularly if you also meet other risk criteria, make an appointment with a prostate cancer specialist. For high-risk men, that relationship should start long before diagnosis."

Many studies have shown an increased importance of understanding and having a complete family history of prostate cancer. If an extensive family history exists and men are aware, it provides help to estimate individual risks that are potentially more accurate than those based on typical family health histories. Both maternal and paternal history are equally important.

"The key is having a complete map of affected relatives. This will push patients and help specialists to make more informed screening, monitoring and treatment decisions," says Dr Samadi.

Researchers at the University of Utah and Huntsman Cancer Institute found that having a first-degree relative such

as a father or brother with prostate cancer increased the risk from 2.5 to 7.7 times more likely to develop the disease. Risks were also higher when a family member was diagnosed before age 50. If a close relative had prostate cancer at a young age, you may be at risk for the same to occur.

"Individualised care has always been the correct approach to diagnosing prostate cancer, but having a man's specific family history may prove to be inexpensive and an efficient addition to identifying men at the highest risk for this disease," says Dr Samadi.

For most men, prostate cancer is a concern after the age of 55. However a recent study of early onset prostate cancer (before the age of 55) by the University of Michigan was found that genetics play a factor in prostate cancer diagnosis and aggression. When comparing two age groups, it was

found that those with early onset prostate cancer diagnoses had a family history of the disease and also carried genes for a more aggressive form of the cancer. Also, the number of prostate cancer diagnoses has increased from 5.6 cases per 100,000 in 1986 to 32 cases per 100,000 in 2008.

The study also noted the degree of prostate cancer related to age. It seems the younger the man, the more severe the prostate cancer and the higher the mortality rate. Men with prostate cancer aged 35 to 44 are nearly one and a half times more likely to die from the cancer than those aged 64 to 75. Many of the

younger, more severe diagnoses had a family history.

In a recent review of the population impact of common familial cancers, Swedish researchers found that prostate cancer had the highest association between family history and disease risk. The assessment was based on the population attributable fraction, the preventable proportion of a disease in absence of a particular risk factor, which in this case is a family history of the cancer. Prostate cancer had the highest fraction (13.94 per cent), nearly double that of breast cancer (7.46 per cent).

CORRECTION

The printed edition of Prostate Cancer News: November 2015 had a story headline 'Understanding Penile Curvature in Adults: Peyronie's Disease, Dupuytren's Contracture'. However, text explaining Dupuytren's Contracture was edited from the published copy. We apologise for this oversight.

The omitted text reads: "Another rare cause for penile curvature is Dupuytren's Contracture, a condition in which fibrous tissue forms across the palms, producing an inward claw-like folding. This condition is seen usually in Caucasian men over the age of 50, but in very few of them it develops into curvature of the penis."

Genetic discovery reveals how prostate cancer develops and spreads

Reference: News Medical, October 27, 2015

A new genetic discovery by scientists at The University of Nottingham sheds light on how prostate cancers develop and spread. The international research team, comprising UK, US, Swedish and Danish scientists, identified a significant gene called miR137 that is switched off in prostate cancer cells.

The research, published in *Oncotarget*, may help to accurately distinguish between indolent prostate cancers, which need little, if any treatment, and aggressive cancers, which require intensive interventions.

“With many men continuing to die from metastatic prostate cancer, there is an urgent need to develop new ways to enable the early identification of aggressive

cancers, especially when such tumours remain localised within the prostate gland and surgery is most effective,” said lead researcher Dr Nigel Mongan. “We also need to make sure that men with indolent disease do not receive unnecessary treatment which can lead to urinary continence and sexual dysfunction.”

The researchers studied the role of androgens in prostate cancer - important signaling molecules that drive the development, repair and regeneration of the prostate and other tissues. They note that defective and amplified androgen signaling can trigger prostate cancer and its spread, and for this reason, many available prostate cancer treatments are aimed at blocking androgen signaling. However, resistance to such therapies is a major clinical challenge.

The gene identified by the team, called miR137, is switched off in prostate cancer cells. They say it functions like a dimmer switch in normal cells to reduce androgen signaling. In prostate cancer, where miR137 is switched off, the effect of androgen signaling is increased. Therefore the loss of miR137 leads to enhanced androgen signaling, which contributes to prostate cancer initiation and progression.

The study has also identified many new potential targets for the next generation of drugs to treat prostate cancer. Research is now underway in the Mongan's laboratory at Nottingham to test the effect of various pharmacological treatments in pre-clinical prostate cancer studies.

Resources

- **Andrology Australia**
andrologyaustralia.org
Phone 1300 303 878
Andrology Australia is the Australian Centre of Excellence in Male Reproductive Health.
- **Australia Prostate Cancer BioResource**
apcbioresource.org.au
Phone (07) 3176 1891
The national tissue resource bank underpinning continued research into prostate cancer.
- **Australian Prostate Cancer Research Centre – Queensland**
australianprostatecentre.org
Research, collaborative opportunities, clinical trials and industry news.
- **BeyondBlue For Men**
beyondblue-men.org.au
Phone 1300 224 636
Therapy for men feeling anxious or depressed after prostate cancer treatment.
- **Cancer Council 13 11 20**
cancerqld.org.au
Confidential information and support, 8am-6pm Monday to Friday (excluding public holidays). Supporting research to beat cancer and comprehensive community support services.
- **Cochrane Library**
cochrane.org
Australians now have free access to the best available evidence to aid decision-making.
- **Lions Australian Prostate Cancer**
prostatehealth.org.au
The first stop for newly diagnosed men seeking information about the disease.
- **Prostate Cancer Foundation of Australia**
pcfa.org.au
Phone 1800 22 00 99
Assistance with the experience of diagnosis and treatment for prostate cancer.
- **Queensland Chapter**
pcfa.org.au
Information, patient support materials and contacts for advice on living with prostate cancer in Queensland.

News Round-up

• Information sourced from Cancer Daily News.

Large dip in local PSA testing numbers, 29 September, 2015

PSA testing in Australia's wider population has fallen by around one-third in recent years, according to Medicare data. This drop-off has been matched by a significant drop in the number of prostate cancer cases being diagnosed. Medicare item figures show that PSA testing, excluding tests used to monitor existing or suspected disease, dipped by almost 300,000 between 2008 and 2014.

Ignoring risk factors fuels cancer ills, 7 October, 2015

Nearly 40,000 of 116,850 cancers diagnosed annually in Australia could be prevented if people avoided known risk factors for the disease, according to research published in the Australian and New Zealand Journal of Public Health. The study by QIMR Berghofer Medical Research Institute identifies 13 areas where people can alter their lifestyle to prevent a third of invasive cancers. The study showed smoking, ultraviolet radiation, body weight, diet and alcohol contributed to 90 per cent of all preventable cancers.

Significant personal costs for cancer treatments, 12 October, 2015

Men with prostate cancer spend an average of \$9205 of their own money on their illness, according to a Griffith University online survey published in European Journal of Cancer Care. The survey of 289 men showed 25 per cent of those diagnosed within 16 months had spent more than \$17,000 on their treatment and 5 per cent had spent more than \$30,000.

Health supplement benefits questioned, 19 October, 2015

Men's health supplements offer no benefit for patients with localised prostate cancer, according to a study presented at the annual meeting of the American Society for Radiation Oncology, in San Antonio. Dr Nicholas Zaorsky from Fox Chase Cancer Center in Philadelphia examined the impact of men's health supplements on patient outcomes and associated toxicities among men undergoing intensity-modulated radiation therapy for localised prostate cancer.

Positive results for new cancer drug, 28 October, 2015

Olaparib, the world's first drug targeted

against inherited cancer mutations, has benefited a third of patients with prostate cancer in an international trial. The findings, published in the New England Journal of Medicine, included many patients who did not inherit cancer genes but whose tumours had acquired defects in DNA repair.

Impressive early prostate cancer screening figures, 28 October, 2015

Screening for early cancer detection may reduce the rate of related metastatic disease, but not always. The New England Journal of Medicine published trends in metastatic breast and prostate cancer, before and more than a decade after the widespread use of mammography, radiographic tests and PSA tests. The trends are startlingly different. The incidence of metastatic prostate cancer fell by 50 per cent within seven years of widespread PSA use from 1990. However, rates of metastatic breast cancer remained remarkably stable after widespread mammography screening in women from 1985 to the present.

Low local uptake of adjuvant radiotherapy, 16 November, 2015

The uptake of adjuvant radiotherapy for certain men with prostate cancer is low in Victoria, despite clinical trials showing significant benefit. A cancer registry study of 833 men at high risk showed only 9.4 per cent received adjuvant radiotherapy within six months of radical prostatectomy. Study author Dr Chris Daniels of the Peter MacCallum Cancer Centre was not surprised, saying adjuvant radiotherapy is not commonly prescribed.

Improved high-grade cancer detection from biopsy, 17 November, 2015

Magnetic resonance imaging-ultrasound fusion targeted prostate biopsy (MRF-TB) improves detection and risk stratification of high-grade disease and limits detection of clinical insignificant prostate cancer, according to a study published in The Journal of Urology. Neil Mendhiratta from the New York University Langone Medical Center in New York says the findings were from clinical outcomes for 452 consecutive men presenting for primary prostate biopsy. Participants underwent pre-biopsy multiparametric magnetic resonance imaging followed by MRF-TB and systematic biopsy.

Healthy lifestyle cuts lethal cancer threat, 18 November, 2015

Vigorous exercise and other healthy lifestyle habits may cut a man's chances of developing a lethal type of prostate cancer by up to 68 per cent. The study, published in the Journal of the National Cancer Institute, tracked tens of thousands of midlife and older men for more than 20 years from two US studies; The Health Professionals Follow-up Study of 42,000 males aged 40 to 75, from 1986 to 2010; and the Physicians Health Study of 20,000 males ages 40 to 84, from 1982 to 2010.

No high-grade cancer risk in testosterone therapy, 25 November, 2015

Testosterone replacement therapy taken for up to five years is not associated with an increase in the risk that older men will develop high-grade prostate cancer. These findings, published in the Journal of Urology, were deduced from more than 50,000 men with prostate cancer.

Examining possible ADT link to Alzheimers, 7 December, 2015

Androgen-deprivation therapy is associated with an increased risk for the future development of Alzheimer's disease in men with prostate cancer, according to a retrospective study of nearly 17,000 patients. The study published online in the Journal of Clinical Oncology assessed 125 new diagnoses of Alzheimer's disease during a median follow-up of 2.7 years. However, the incidence of Alzheimer's was nearly twice as high in the 2397 men who received ADT than 14,491 men who had not.

Survival rates favour surgery option, 15 December, 2015

Men with prostate cancer confined to the organ are more likely to survive if they have surgery rather than radiation therapy, according to a new Canadian study published in European Urology. This type of localised prostate cancer accounts for about 80 per cent of cases, says Dr Robert Nam of the Odette Cancer Centre at Sunnybrook Research Institute in Toronto. Dr Nam's team examined data from 19 studies that included nearly 119,000 men with localised prostate cancer. Findings from 15 of the studies showed that those who received radiation therapy were twice as likely to die from prostate cancer as those who had surgery.

Tell your story

Letters for publication may be forwarded to QPCN by post to PO Box 201, Spring Hill Qld 4004, or email qpcn@cancerqld.org.au. We would love you to share your prostate cancer story with us (and anonymity can be preserved if requested). For assistance with your writing, you can contact the Queensland Writers Centre, which is located in the Queensland State Library and offers seminars and advice to budding writers and authors.

Contact: qldwriters@qwc.asn.au Ph: 07 3842 9922

Forward a copy

Forward a copy of QPCN to a friend, a neighbour or relative. The key to conquering prostate cancer is prevention, greater awareness and early diagnosis. Invite a new reader to QPCN. You can never be too young or too old to become interested in prostate cancer.

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use or disclose your details except as you might reasonably expect. You may access your details and you may request that we correct or amend (ie update) or delete your details.

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