



Cancer Drug Enquiry

Last month Independent Senator Nick Xenophon announced a Senate Inquiry into *The availability of new, innovative and specialist cancer drugs in Australia.*

We are extremely fortunate in Australia to have equitable and affordable access to necessary medicines through the Pharmaceutical Benefits Scheme. However, in recent years, there have been delays in new cancer drugs becoming available on the Pharmaceutical Benefits Scheme. Patients in Australia may have to wait for 3 years after prostate cancer drugs are available in the US and Europe.

The Committee will be putting in a submission to the Senate Enquiry on behalf of the Group. Submissions close in the last week of February 2015.

Free Health Assessment.

Researchers at Deakin University are interested in comparing the health of men aged 50-85 years previously diagnosed with prostate cancer to men of the same age (50-85 years) not diagnosed with prostate cancer. The aim is to better understand the additional health issues that may arise as a result of being diagnosed with prostate cancer. They are doing this by offering a one-off FREE health assessment to men aged 50-85.

Each man will have a single testing session at Deakin University (Burwood campus) which will take approximately 2-3 hours. The researchers will comprehensively assess muscular, bone, cardiovascular and metabolic health. All results will be put together in a report for you to keep and pass on to your GP.

If you are interested, please contact Patrick Owen:
Ph. (03) 9244 5013 or 0414 221 902 Email: pow@deakin.edu.au

Our Next Meeting

Date: Wednesday 11 February 2015.
Time: 10:00 am to 12.30 pm
Place: Ivanhoe Uniting Church, Seddon Street, Ivanhoe (Melways 31 F8)

Guest Speaker - Carla D'Amico

Carla is the Prostate Cancer Specialist Nurse at the Austin Hospital, having taken over the role from Dave Gray in November last year.

Carla entered nursing as a mature age student and is very passionate about nursing care. She supervises and tutors nursing students at La Trobe University. Carla, who has post-graduate qualifications in Acute Care and Urology, previously worked as a Surgical, Urology and Oncology Ward Clinical Nurse Specialist at the Austin Hospital. She is a Member of Victorian Urology Nurses, Continence Foundation of Australia, ANZUP and COSA.

Carla will tell us about all the things that a Prostate Cancer Specialist Nurse does.



Prostate-Specific Membrane Antigen (PSMA) PET Scan

A positron emission tomography (PET) scan is an imaging test that uses a radioactive substance called a radiotracer to look for disease in the body.

Before carrying out a PET scan, a radioactive medicine is produced in a cyclotron (a type of machine). The radioactive medicine is then tagged to a natural chemical. This natural chemical could be glucose, water, or ammonia. The tagged natural chemical is known as a radiotracer. The radiotracer is then inserted into the patient's body, normally through a canula which has been inserted into the patient's arm.

When it is inside, the radiotracer will go to areas inside the body that use the natural chemical.

For example, the ^{18}F -FDG (fluorodeoxyglucose) is a radiotracer that is tagged to glucose. The glucose goes into those parts of the body that use glucose for energy. Cancers, for example, use glucose differently from normal tissue - so, an FDG PET Scan can show up cancers.

The ^{18}F -FDG PET Scan is probably the commonly used PET Scan in hospitals. Because prostate cancer is slow-growing, it does not take up glucose as much as other cancers. For this reason researchers have been looking to develop radiotracers that were more suitable to use for imaging prostate cancer.

For several years the ^{11}C -Choline PET scan introduced at the Mayo Clinic has been regarded as leading the way in the imaging of prostate cancer. The major limitation of ^{11}C -Choline is that it has a 20-minute half-life (The half life is the time required for one half of the atoms of a given amount of a radioactive substance to disintegrate). This means that ^{11}C -Choline must be used very quickly after it is produced. For this reason,

Recent developments in imaging will revolutionise the treatment of prostate cancer. Our last newsletter looked at Magnetic Resonance Imaging (MRI). This month we look at PSMA PET Scans.

it must be produced on site very close to where it is administered. Normally radiotracers are produced off site for safety reasons.

^{11}C -Choline has shown limited sensitivity in men with very low PSAs. One study showed a 5% detection rate where PSA levels were less than 1.0 .

^{18}F -Fluorocholine is another radiotracer that has been trialled in Europe and Australia with good results. However, it is less sensitive than ^{11}C -Choline and requires a higher PSA level in order to get an effective image.

A PSMA PET scan is one that uses a radiotracer which is targeted to a protein (Prostate-Specific Membrane Antigen) that is found in prostate cancer.

There are different types of radiotracers are being developed for PSMA PET Scans. For example, in the United States Johns Hopkins University has developed a ^{18}F -DCFBC radiotracer and Memorial Sloan Kettering Cancer Centre has developed a Zr^{89} -J591 radiotracer. In Australia we are now using a Gallium(Ga^{68}) radiotracer which was developed in Germany.

The Gallium PSMA PET Scan produces a sharply defined image at very low PSA levels. Because the Gallium PSMA PET Scan targets the Prostate-Specific Membrane Antigen protruding from the outer membrane of the cancer cells, the radiotracer "lights up" on

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the PET images showing clearly metastases to lymph nodes as well as to bone.

[In my case with a very low PSA of 0.58, the Gallium PSMA PET Scan detected 4 metastases that were not visible on other scans.]

Seeing is believing. Memorial Sloan Kettering Cancer Centre has produced an excellent video showing the difference that a PSMA PET Scan makes:

<http://www.mskcc.org/videos/prostate-specific-pet-scans>

At the moment the technology is still being trialled in Australia. There is limited availability of the PSMA PET Scans: only a few hospitals in Australia are offering them. The scans are expensive and are not covered by Medicare.

Being able to see where the cancer is at a much earlier time means that it may be possible to treat the cancer earlier than we could before.

Prostate cancer patients who have a PSA recurrence after treatment may wish to discuss with their doctors about using a PSMA PET Scan to locate their cancer, rather than waiting until their PSA level is over 2.0 to have one of the current types of scan.

Exercise is medicine

The session at the World Cancer Congress on “The role of physical activity and exercise for cancer patients and cancer survivors” was an interesting one.

The first speaker looked at the Historical Role of Exercise with the Cancer Population.

Over the past 50-70 years researchers have looked at the lifestyle important for cancer prevention. Early research on exercise and cancer focused on primary prevention.

In the 1980s researchers began to look at the effects of exercise during and after cancer treatment. With improved survival rates there was an interest in long term survivorship and a shift to include quality of life and symptom management as important outcomes.

Most of the early studies of exercise focused on breast cancer. Many studies now are focusing on prostate cancer.

Most early studies compared exercise with nothing. Some studies then began to compare exercise prescriptions. Now there are a “second-generation” of studies seeking to identify optimal exercise prescriptions for outcomes.

In the last 5 years there has been growing interest in mechanisms and biomarkers - in how exercise produces the effects.

The next speaker reiterated that there was now good evidence that exercise was medicine for cancer patients and survivors.

We needed to be certain that we were achieving the most effective intervention possible.

- Underdose = limited gains, no change in symptoms
- Overdose = safety, injury, overtrain

The third speaker continued this theme saying that exercise was not a single medicine and that the mode, dosage, recovery, frequency and nutrition were all important.

Research was suggesting that optimal exercise comprised a blend of aerobic exercise, resistance exercise (weights) and high impact exercise (eg jumping).

Some of the mechanisms triggered by exercise were changes to the body’s endocrine system, epigenetic effects (turning genes on and off), and stimulating the body’s immune system.

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Prostate Heidelberg provides information, education and support for those affected by prostate cancer. At the meetings, we

1. *Show respect to members and speakers;*
2. *Allow people to speak and we listen;*
3. *Respect confidentiality;*
4. *Allow new ideas to be shared.*

We meet on the 2nd Wednesday of each month (February to December) from 10:00am -12:30pm.

We meet at the Uniting Church Meeting Room, Seddon St, Ivanhoe (behind the Commonwealth Bank in Upper Heidelberg Rd).

Free parking is available in a large public parking area at rear of the church. Ivanhoe railway station is nearby.

Meetings are open to anyone interested in getting support or information on a prostate cancer journey.

Partners or carers are welcome to all meetings

There is no charge for attending.

COMMITTEE:

Max Shub, Facilitator 0413 777 342
Paul Hobson Secretary 0405 086 869
Chris Ellis
Spiros Haldas
Patrick Woodlock

Annual subscription - \$5 from 1st January
per individual, couple, or family.

MEETING VENUE:

Uniting Church Meeting Room
Seddon St, Ivanhoe
(behind the Commonwealth Bank in Upper
Heidelberg Rd).

CORRESPONDENCE

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3079

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CALENDAR Meetings: **10:00am -12:30pm**

No meeting January
Wed 11 Feb '15
Wed 11 March '15
Wed 8 April '15
Wed 13 May '15
Wed 10 June '15
Wed 8 July '15
Wed 12 August '15
Wed 9 September '15
Wed 14 October '15
Wed 11 November '15
Wed 9 December '15 (Christmas lunch)

Please contact Paul Hobson to redirect or
cancel receipt of this Newsletter.

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